ABSTRACT

The most significant and theoretical link between credit risk and Islamic banks’ profitability ratio (ROE) has been determined due to the special nature of Musharakah (cost-in-low) financing. This study aims to determine how credit risk affects Islamic banks' profitability ratio (ROE). Data was obtained from (2018-2022), from the yearly reports of selected Islamic banks in Pakistan. The data analysis found that measures for the end of Musharakah size financing (MSF) (0.0220) and Musharakah Non-Performing ratio (MNPR) (0.03706) significantly impact return on equity. Study results show a strong and positive correlation between ROE and the Musharakah Non-Performing Ratio (MNPR). Based on the findings, it was concluded that the economic support of Musharakah (diminishing) generally increases the return on equity (ROE) of Islamic banks. Therefore, this research suggests Islamic banks need to increase their support for Musharakah (diminishing) to overcome the high credit risk exposure. Based on the findings of this study, Islamic banks can design and implement policies to reduce credit risks while improving their financial performance. Furthermore, this research can help Islamic banks improve their profitability ratio by reducing credit risk.

1. Introduction

Because of the particular characteristics of Islamic profitability ratios (ROE), such as Musharakah (cost plus increase), the theoretical association between credit risk & profitability ratios has acquired an additional significance. A Musharakah diminishing involves the Islamic bank developing the articles using the client's data and transferring them for a profit. The client then pays the Islamic bank at a later agreed-upon time or in a set of agreed-upon sections. Iqbal et
al. (2023) says Musharakah, which accounts for over 75% of transactions in Islamic institutions, is the most well-known commodity.

This suggests that the topic is a significant resource for Islamic banks. The type of this resource affects profitability ratio (ROE), especially Islamic banks. A high level of resource quality requires effective management of the linked credit risk. Musharakah causes credit risk in the Islamic banking sector when a client (purchaser) is unable to pay his debt when the items are delivered or when he can't make the payments as arranged with the Islamic bank (Boumediene, 2011). Musharakah arrangements can also involve credit risk if the customer refuses to take possession of goods after the Islamic bank pays for them. This typically occurs in non-restrictive Musharakah when the customer feels that the product cannot satisfy his requirements (Iqbal et al., 2011).

Pakistan's Islamic banks are given high credit risk to meet the requirements of the economy for intermediation. Several explanations for the increased level of risk that could be linked to Islamic financial trading in the area were identified by Adewale et al. (2019). The reasons for this were found to be Pakistan's lending challenges, which included a lack of significant safeguards to be introduced as security for Islamic bank Musharakah, no evidence of clear titles to properties, a general lack of respectable marketable strategies, and a lack of appropriate profitability records. Supporting a company that shows these characteristics has led to payment defaults in Pakistani Islamic banks. Another factor contributing to the high credit risk of Islamic banks in Pakistan is the arrangement of money to gamble.

According to Adewale et al. (2019), Islamic banking sector financing is the 2nd significant backer of extreme credit risk in Pakistan's Islamic banking sector, after Musharakah financing. Another difficulty for Islamic banking in Pakistan is establishing guidelines and maintaining consistency. It was reported by Ariffin et al. (2014) that certain Islamic banks add ambiguous costs to their accounts, which may be considered charity from supervisors or financing designed to be used cost-effectively. Added up these charities provide Islamic banks with significant capital and potential default. Thus, the successful implementation and enforcement of guidelines on Islamic banking is essential for its successful operation in Pakistan.

Islamic banking is therefore associated with high risk levels. The primary source of wagers is Musharakah support, which covers the essential component of Islamic profitability exchanges. Credit risk shouldn't affect an Islamic bank's profitability (ROE) as much as a traditional bank. This is mostly due to Islamic banking in general and Musharakah diminishing in particular. This adds to the charity of support by taking into account credit risk (Iqbal et al., 2023).

Consequently, rather than the assumed notion (incorrect management conjecture) that the larger accumulated disregarded credits and develops, the less profitable the profitability, a helpful association instead of an adverse association may exist typical among credit risk and profitability. This is particularly true of interest, which accumulates with incredible stability during credit periods. According to Nur rawati et al. (2020), high credit risk will generally increase bank profitability (ROE) because clients' determination exists required to contribute a significant
amount of benefit as benefit for assuming advanced credit risk. This situation on the positive impact of credit risk on Islamic banks' profitability was supported by research (Iqbal et al., 2022).

Studies conducted in Pakistan have shown positive findings on the association between credit risk & financial performance (ROE) (Belkhaoui et al., 2020; Nurmawati et al., 2020; Syamlan et al., 2019 and Supiyadi et al., 2017). Several researches on financing risk and Islamic bank performance are available in Pakistan (Karim, Mohamed & Sami et al., 2010; Chowdhury et al., 2015; Mong, 2015). These studies identified a negative link that was consistent with the suggested explanation and evidence of various traditional banks (Onaolapo, 2012; Kolapo et al., 2012; Kurawa, 2014 and Kingu et al., 2015). Therefore, it can be concluded that financing risk has a negative impact on the performance of Islamic banks in Pakistan.

The most recent study has been conducted in Pakistan that revealed that exploratory transactions with the Islamic banking industry did not account for Musharakah financing as a determinant of premium when assessing the relationship between credit risk and profitability. Previous studies could not identify a certain percentage of credit risk exposure from Musharakah financing. This study is crucial because it examines the relationship between credit risk and Islamic banks' profitability (ROE). This study will provide a more detailed analysis of how Islamic financial results differ from Musharakah financing. Furthermore, this study will examine the credit risk associated with Musharakah financing in Pakistan's Islamic banking industry.

Islamic banking has gained popularity in Pakistan, offering an alternative financial system based on Shariah-compliant practices. One key concept is Musharakah, which represents a partnership between the bank and its clients. However, the Islamic banking sector faces challenges in maintaining profitability while managing credit risk effectively. Musharakah financing involves a partnership between the bank and the client, where profits and losses are shared. However, this partnership structure exposes the bank to credit risk, as any default or failure can lead to potential losses. The implementation of Musharakah financing poses specific challenges to Islamic banks' profitability, including inadequate risk assessment and due diligence in selecting partners and business ventures. The absence of standardized accounting practices and reporting frameworks further complicates the process of determining profitability. To address this problem, Pakistan's Islamic banks must develop robust risk management frameworks, including credit risk assessment, due diligence, and standardized accounting and reporting practices. This will enable Islamic banks to strike a balance between profitability and credit risk. This will contribute to the overall stability of the Islamic banking sector in Pakistan (Iqbal et al., 2022; Iqbal et al., 2023).

The next section of the article is organized to consist of a literature of review, method, results, and conclusion.
2. **Literature Review**

2.1 **Relationship Between Musharakah and Credit Risk**

The purpose of this article is to provide an empirical literature review of the relationship between Musharakah and credit risk. Musharakah is a form of Islamic financing that involves a partnership between two or more parties, in which profits and losses are shared according to agreed-upon ratios. A credit risk, on the other hand, refers to the possibility of financial loss resulting from a borrower's failure to pay back a loan. Financial institutions and investors involved in Islamic finance must understand the relationship between Musharakah and credit risk (Warninda et al., 2019).

Adzimatinur et al. (2021) found that Musharakah has the potential to reduce credit risk in Islamic banking. This study examines the impact of Musharakah financing on credit risk. Analyzing data from multiple Islamic banks, the authors conclude that Musharakah financing reduces credit risk positively. According to the study, Musharkah’s shared ownership structure facilitates risk sharing and encourages borrowers to make prudent financial decisions. The average problematic financing for sharia commercial banks is 3.97%, which indicates that the risk of Musharakah financing is still relatively high in the 2012-2017 period. Therefore, this study emphasizes the importance of proper risk assessment and risk management strategies to mitigate the risk of Musharakah financing.

Ramli et al. (2020) published "Credit Risk Assessment in Musharakah Financing: A Comparative Analysis" which compared credit risk assessment methodologies utilized in Musharakah financing. The authors examine Islamic banks' risk factors and conclude that a comprehensive risk assessment framework facilitates better credit risk management. As a result of the study, it is highlighted that the ability to accurately assess credit risk in Musharakah financing must include both qualitative and quantitative risk factors. The average value of credit risk for the 12-year period is 5.2% and the median is 3.5%. Therefore, Islamic banks should take into consideration all the quantitative and qualitative risk factors while assessing the credit risk of Musharakah financing.

Yustiardhi et al. (2020) present a theoretical study that examines the relationship between agency theory and credit risk in Musharakah financing. Agency problems, such as information asymmetry and moral hazard, can lead to increased credit risk, according to the authors. In order to mitigate credit risk in Musharakah financing, they propose the use of effective monitoring mechanisms and risk-sharing arrangements. The findings of this study demonstrate the importance of incorporating agency theory and credit risk analysis when designing and implementing Musharakah financing.

The literature review on the relationship between Musharakah and credit risk shows that Musharakah financing has the potential to mitigate credit risk in Islamic banking. The studies emphasize the importance of risk-sharing mechanisms, comprehensive risk assessment frameworks, effective monitoring, and an optimal capital structure in managing credit risk. These
findings provide valuable insights for financial institutions and investors engaging in Musharakah financing. They help them make informed decisions and develop strong risk management strategies. Further research is needed to explore additional factors influencing the relationship between Musharakah and credit risk. Ultimately, Musharakah can be an effective form of financing, provided financial institutions and investors have a comprehensive understanding of the underlying credit risk and risks associated with it (Nouman et al., 2020).

Based on the existing literature and relationship between Musharakah and credit risk, this research hypothesis for this study is as follows:

**H1: There is a positive and significant relationship between Musharakah and credit risk of Pakistan.**

### 2.2 Relationship Between Musharakah and Profitability

Abbas et al. (2019), a study was conducted to determine the impact of Musharakah financing on the profitability of Islamic banks. Researchers found a positive relationship between Musharakah financing and profitability. Based on the findings of the study, Islamic banks that financed their operations through Musharakah contracts experienced higher profitability than those who utilized other forms of financing. As a result of this finding, it appears that Musharakah financing plays an important role in enhancing the profitability of Islamic banks.

Ratnawati et al. (2021) have conducted an in-depth analysis of the relationship between Musharakah financing and firm profitability in the context of Islamic microfinance institutions. In their research, Musharakah financing was found to be associated with firm profitability in a positive manner. Based on the results of the research, firms using Musharakah financing were more profitable than those using conventional financing methods. The results of this study support the notion that Musharakah financing contributes to the profitability of microfinance institutions.

Warninda et al. (2019) conducted an investigation aimed at exploring the impact of Musharakah financing on the profitability of small and medium-sized enterprises (SMEs). It was found in their study that Musharakah financing was positively associated with the profitability of small and medium-sized businesses. It was found that SME’s that utilized Musharakah financing had a higher profitability than those that used traditional financing methods. Based on these findings, Musharakah financing can be an effective tool for enhancing profitability in SME enterprises.

Agustin et al. (2018) conducted an analysis to examine the relationship between Musharakah lending and the profitability of Islamic investment companies. A positive correlation was found between Musharakah financing and profitability in their study. In the study, it was found that Islamic investment companies that utilize Musharakah contracts for financing experienced higher profitability than those that rely on other forms of financing. Musharakah financing has the potential to improve profitability for investment companies, based on this finding.

The literature review shows a mixed relationship between Musharakah and profitability. While many studies suggest a positive impact of profit-sharing, others show mixed results. Factors such as entrepreneurial skills, industry dynamics, and macroeconomic conditions can influence
profitability outcomes. The literature suggests that factors like risk management practices, ethical considerations, and favorable market conditions contribute to the profitability of businesses operating under the Musharakah framework. However, further research is needed to explore additional dimensions and variables that may impact Musharakah venture profitability across different sectors and regions (Islam et al., 2020).

Based on the existing literature and relationship between Musharakah and profitability, this research hypothesis for this study is as follows:

**H2:** There is a positive and significant relationship between Musharakah and profitability of Pakistan.

### 1.3 Relationship Between Musharakah and Profitability in Islamic Banking

This literature review examines the relationship between Musharakah financing and Islamic banking profitability. It finds that Musharakah, a profit-sharing arrangement, allows Islamic banks to generate higher returns than conventional interest-based financing. Studies have also examined its impact on bank performance dimensions like return on assets, return on equity, and net profit margin. Most studies found a positive association between Musharakah and these performance indicators, indicating a favorable impact on bank profitability (Syahri et al., 2020).

Gustriani et al. (2020) found a positive correlation between Musharakah-based financing and profitability in Islamic banks. In this study, financial data from a sample of Islamic banks was analyzed, and it was concluded that the use of Musharakah financing positively affects Islamic banks' profitability. It is evident from these findings that Musharakah can enhance the financial performance of Islamic institutions. Several studies, including one from Nugraha et al. (2021), have found a positive correlation between Musharakah-based financing and profitability in Islamic banks.

In a study conducted by Azizah et al. (2020), the impact of Musharakah on Islamic banks' risk and profitability was examined. An analysis of panel data was conducted in order to examine the financial performance of Islamic banks over a specified period. In this study, it was found that Musharakah financing positively influences profitability while reducing risk. The results of this study indicate that Musharakah may be a useful tool for improving the financial stability and profitability of Islamic banks. Therefore, this study provides evidence that Musharakah is a viable option for Islamic banks to improve their financial performance and reduce risk.

According to the study conducted by Belkhaoui et al. (2020), the focus was on the impact of Musharakah financing on the profitability of Islamic banks in a given country. In this study, a case study approach was used and financial data from a selected group of Islamic banks was analyzed. Moreover, the results indicated a positive correlation between Musharakah financing and profitability. This supports the idea that Musharakah plays a positive role in Islamic banks' financial performance.

The literature review indicates a positive relationship between Musharakah and profitability in Islamic banking. As a result of the utilization of Musharakah-based financing, Islamic banks have
been found to be able to improve their financial performance as they promote equity, risk-sharing, and shared responsibility. As a result of these findings, policymakers, researchers, and practitioners in the field of Islamic banking will be able to gain a better understanding of the role of Musharakah in Islamic banking. Further research is needed to examine the dynamics of Musharakah in various contexts and determine its long-term impact on the profitability of Islamic banks (Febyansyah et al., 2023).

Based on the existing literature and relationship between Musharakah and profitability in Islamic banking, this research hypothesis for this study is as follows:

**H3:** There is a positive and significant relationship between Musharakah and profitability in Islamic banking of Pakistan.

The association among credit risk and Islamic bank’s profitability ratio (ROE) has been precisely examined in a few studies. Belkhaoui et al. (2020), analyzed the profitability of Islamic banking sector in 7 Focus Eastern countries. Cash flow to assets and advance to resource ratios were used as a secondary measure of credit risk, while ROA and ROE was used to measures profitability. Information on cross-border Islamic banks was gathered from the yearly financial summaries of 10 Islamic banks for 2011 to 2021. The information was divided using a combined OLS method. The analysis find that credit risk has a major overall effect on performance. The findings indicated that improved performance is brought about by high cash-flow-to-resource and credit-to-resource ratios in the selected institutions. Nurmawati et al. (2020) says credit risk as a factor in Malaysian Islamic banks' performance. The review reached the consistent assumption as Belkhaoui et al. (2020), namely that there is a significant correlation among credit risk and Islamic bank’s performance.

Syamlan et al. (2019) carried out research on the explicit benefits of Islamic banks during the period 2002-2019. Credit risk was a factor gathered for the study by the Stock Exchange and Malaysian Islamic Bank. The percentage of advance misfortune obligations that add up to credit was used to measure credit risk. As a result of using the relapse investigation process, the analysis found that credit risk exists fundamentally linked to the profits made by banks (measured by return on assets). This means that the increased advantage is attributable to banks’ increased credit risk transparency. According to Syamlan et al. (2019), findings utilizing credit card risk, there is a positive correlation between recognized risk (the middleman with the full advance added to assets) and productivity (as evidenced based on ROA).

Supiyadi et al. (2017) studied the association between Islamic financial performance & credit risk management. The Islamic banking sector registered on Malaysia stock trade between 2008 - 2018 provided the information used for the review. Relapse analysis was conducted to see how credit risk affected performance. The analysis indicated that Islamic banks' advantage, as determined by profit on resources and return on assets (ROA), was influenced by NPL & CAR proportions utilized as an intermediary for credit risk.

Investigative work in Asia showed a clear link between credit risk & banking sector operations. Moreover, the opposite was true for Pakistan research because this novel, unusual association
discovered for Asian banks couldn't be outlined in Pakistan. According to Adewale et al. (2019), loaning challenges (guarantee problems, missing property titles, a lack of field-tested strategies, etc.), risk area support fixation, and a deficit of satisfactory regulation on Islamic banks of Pakistan result in disadvantaged credit risk executives, which has a negative impact on Islamic banks' profitability. Butt et al. (2022) focused on the elements that affected Islamic banks' profitability in Pakistan from 2012 to 2021. In this study, 9 Islamic banks from Malaysia, Indonesia, and Oman were analyzed using the Bank level data set. The outcome of the regression analysis showed that net credit to the whole resource (a credit risk intermediary) exhibits a negative & positive on impact on Islamic bank’s benefit. This indicates that credit risk decreases productivity. This result contrasts with that of Saleem (2023), who calculated the risk for a comparable net loan to the entire resource. According to him, Islamic banks' productivity in the Bay Collaboration Committee was positively correlated.

Chowdhury et al. (2015) also studied the variables influencing the profitability of 14 Islamic banks in Pakistan. The bank-level data set was analyzed using the conventional least squares regression method. The study discovered a negative correlation between bank productivity and advance loss agreements in total credit. This indicates that increased credit risk yields less benefit. Mong (2015) evaluated the impact of the risk management board on Islamic banks' financial performance from 2010 to 2014, and his findings supported the findings. A logical and empirical investigation was used to segment the information collected for the review. To examine whether risk management strategies have a significant impact on banks' financial performance, regression analyses were conducted. Islamic banks in Pakistan are negatively impacted by credit risk.

According to an examination of specific studies, those from China showed the beneficial impacts of credit risk on profitability and were compatible with the risk-return affect theory, while those from the West demonstrated detrimental effects consistent with the faulty management theory. The anticipated nature of the relationship between credit risk and financial productivity is straightforward to understand. This is given the role played by Musharakah support and the distinctiveness of Islamic financial activities, such as resource-based funding. In calculating their credit risk, the two Pakistani concentrations didn't specifically take dissipating Musharakah credit into account (Pratami et al., 2023).

An acceptable risk-return rule was inserted into the portfolio assumption to accommodate the poor management hypothesis of this study. According to bad administration theory, the bank's low profitability in terms of productivity & competence is the outcome of executive decisions that show poor management (Iqbal et al., 2033). In addition to this supposition, insufficient credit monitoring and insufficient borrower screening by bank executives can lead to the rise of non-performing loans, causing decreased performance. When explaining the lack of organization theory, Gull et al. (2023), a low implementation rate correlates with an increase in nonperforming loans or investments. This could be related to poor management practices in proposal and test assurance. Also, it could be related to checking that a client has approved their payment.
Therefore, the idea might be applied to describe how credit risk affects banks' output. This is because high-risk openness without adequate management suggests a lack of administrative competency, which can raise operational expenses and lower bank profitability. Studies on Asian Islamic banks, however, contradict hypothetical research by (Iqbal et al. 2023). The argument was that Islamic banks function differently from traditional ones. They can earn better grades due to their substantial credit risk exposure, which boosts productivity. The chance-return compromise hypothesis (Iqbal et al., 2023) was therefore considered during the study.

The significance of the affect philosophy may be linked to the association between Islamic banks' financial performance and credit risk. Iqbal et al. (2023) suggest there is a balance between risks and benefits. That is, the possibility of a similarly large, anticipated return determines how much risk an investor (bank) will accept. According to the conventional financial model of portfolio theory, riskier operations will yield higher yields. According to the idea, substantial normal returns must be maintained for risk-averse investors to invest in risky resources. In light of this, a positive relationship between credit and risk is anticipated.

Regarding the assumption of risk associated with Islamic financial products, and specifically, the Musharakah diminishing, the concept discusses the trade-off between the chance that a Musharakah improvement will result in a client's (purchaser's) default and a significant damage to the banking sector & the return that banks will control & collect on the exchange as a benefit (increase). The determinant of all decisions regarding risky undertakings is the risk return agreement. Theoretically, this should combine credit disaster predictions. Based on this, as a result of the bank's experience (hazard of defaulting) from supporting Musharakah, the bank's profit from speculating is likely to increase as well (Syamlan et al., 2019; Supiyadi, 2017).

3. Methodology

For the purpose of assessing the influence of credit risk on Islamic banks' profitability in Pakistan, this study developed a pre-existing research design. Islamic banking sectors was randomly chosen from small-revenue nation. Based on a random selection of Islamic banking sectors from small-revenue nations, the purpose of this study is to determine whether Islamic banking principles may be applied to different economic contexts and to assess their potential economic growth. The review's time frame was 2018 to 2022. Data was collected from the selected Islamic banks' yearly reports, and it was analyzed using both empirical and predictive metrics. The method will be used by multi-regression. The best measurement was determined through Hausman tests. To understand the impacts of credit risk (regulator) factors on profitability measure (ROE) of the nominated Islamic banking sector, a fixed impact model analysis was performed (Iqbal et al., 2023).

The study's model was based on Mennawi (2020), the association among credit risk and Islamic banking sector on profitability (ROE) performance has been determined as follows.

Profitability (ROE) = f (Credit Risk link to Musharakah & Control Variables)
Return on Equity (ROE) is a method for estimating profitability ratios. When compared to other conventional profitability indicators, ROE is a more reliable indicator of advantage (Bikker, 2010).

The following is how the relationship's econometric models are established:

\[ \text{ROE}_i = \alpha + \beta_1 \text{MNPR}_i + \beta_2 \text{MPR}_i + \beta_3 \text{CAR}_i + \beta_4 \text{MSF}_i + \beta_5 \text{CR}_i + \beta_6 \text{BS}_t + \mu_i \]  

*Eq. 1*

Where, \( \text{ROE} \) = Return on Equity; \( \text{MNPR} \) = Musharakah Non-Performing Ratio; \( \text{MPR} \) = Musharakah Provisions Ratio; \( \text{CAR} \) = Capital Adequacy Ratio; \( \text{MSF} \) = Musharakah Size Finance; \( \text{CR} \) = Credit Risk and \( \text{BS} \) = Bank Size.

The assumption was that \( \beta_1 < 0, \beta_1 < 0, \beta_3 > 0, \beta_4 > 0, \beta_5 > 0, \beta_6 > 0, \beta_7 > 0, \beta_8 > 0 \). Accordingly, Musharakah Non-Performing ratio (MNPR), Musharakah Provisions ratio (MPR) and return on value (ROE) are expected to have a negative relationship. However, a positive relationship makes sense given other logical factors.

### 3.1 Theoretical Framework

In Pakistan's Islamic banks, there is a relationship between Musharakah, credit risk, and profitability in this study, the theoretical framework is based on existing literature on Islamic banking and credit risk management to investigate the relationship between Musharakah, credit risk, and profitability in Pakistan's Islamic banks. Specifically, it examines how Musharakah as a mode of financing impacts the credit risk and profitability of Islamic banks in Pakistan. Additionally, the study will examine the implications of the findings for Islamic banking practices in Pakistan. For Pakistan's Islamic banks to effectively evaluate their credit risks and profitability, it is therefore essential to take into account Musharakah’s unique features.
4. Results

In this section, the results of data testing are presented as descriptive and inferential measurements.

<table>
<thead>
<tr>
<th>Variables</th>
<th>MNPR</th>
<th>MPR</th>
<th>CAR</th>
<th>MSF</th>
<th>CR</th>
<th>BS</th>
<th>VIF</th>
<th>TOLs</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNPR</td>
<td>0.19</td>
<td>0.11</td>
<td>1.00</td>
<td></td>
<td></td>
<td></td>
<td>1.47</td>
<td>0.68</td>
</tr>
<tr>
<td>MPR</td>
<td>0.12</td>
<td>0.25</td>
<td>0.16</td>
<td>1.00</td>
<td></td>
<td></td>
<td>1.33</td>
<td>0.75</td>
</tr>
<tr>
<td>CAR</td>
<td>-0.08</td>
<td>-0.17</td>
<td>-0.34</td>
<td>-</td>
<td>1.00</td>
<td></td>
<td>1.28</td>
<td>0.78</td>
</tr>
<tr>
<td>MSF</td>
<td>0.24</td>
<td>0.14</td>
<td>0.07</td>
<td>0.21</td>
<td>0.09</td>
<td>1.00</td>
<td>1.53</td>
<td>0.65</td>
</tr>
<tr>
<td>CR</td>
<td>0.41</td>
<td>0.33</td>
<td>0.23</td>
<td>0.29</td>
<td>0.29</td>
<td>0.17</td>
<td>1.44</td>
<td>0.78</td>
</tr>
<tr>
<td>BS</td>
<td>0.02</td>
<td>0.09</td>
<td>0.10</td>
<td>0.07</td>
<td>0.21</td>
<td>0.18</td>
<td>1.34</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Note: Source - Researcher’s Estimate - 2022

Table 1: presents the relationship investigation and variance development factor assessment results. The relationship outcomes show that there is a weak and low relationship between the sets of variables used as indicators. This is logical since positive relationship between independent variables show collinearity, a significant infraction of the OLS regression method.

The level of associations among two independent variables is determined by the change inflation factor (VIF). As a general rule, when the VIF is greater than 10, a variable becomes...
extremely collinear; however, after the (VIF) is less than 10, collinearity doesn't occur. A (VIF) of exactly 1 indicates the absence of such a relationship. The data should show that the (VIF) has a higher value than 1, indicating a weak relationship between the indicator factors. Tests of resistance (TOLs), the opposite of this, which have results positively above the average line of 20, support this. As a result, there is no chance for regression factors' typical errors to be improperly increased.

### 4.2 Model of Estimate Results

#### Table 2: ROE and Credit Risk

<table>
<thead>
<tr>
<th>Indicator</th>
<th>OLS - Pooled</th>
<th>Effect - Fixed</th>
<th>Effect - Random</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-4.2232</td>
<td>-5.7034</td>
<td>-3.6168</td>
</tr>
<tr>
<td>Prob.*</td>
<td>(2.2621)</td>
<td>(4.0331)</td>
<td>(4.2530)</td>
</tr>
<tr>
<td>MNRP</td>
<td>0.7854*</td>
<td>0.3706*</td>
<td>0.6465*</td>
</tr>
<tr>
<td>Prob.*</td>
<td>(0.1498)</td>
<td>(0.5643)</td>
<td>(0.2443)</td>
</tr>
<tr>
<td>MPR</td>
<td>0.5329*</td>
<td>0.0220*</td>
<td>0.0074*</td>
</tr>
<tr>
<td>Prob.*</td>
<td>(0.0149)</td>
<td>(0.0232)</td>
<td>(0.0147)</td>
</tr>
<tr>
<td>CAR</td>
<td>0.3669</td>
<td>0.2921</td>
<td>0.3589</td>
</tr>
<tr>
<td>Prob.*</td>
<td>(0.0688)</td>
<td>(0.0661)</td>
<td>(0.0682)</td>
</tr>
<tr>
<td>MSF</td>
<td>4.2105*</td>
<td>3.3223*</td>
<td>2.5530*</td>
</tr>
<tr>
<td>Prob.*</td>
<td>(0.0311)</td>
<td>(0.0010)</td>
<td>(0.0423)</td>
</tr>
<tr>
<td>CR</td>
<td>0.7161</td>
<td>1.0410</td>
<td>0.7539</td>
</tr>
<tr>
<td>Prob.*</td>
<td>(0.4557)</td>
<td>(0.4390)</td>
<td>(0.3400)</td>
</tr>
<tr>
<td>BS</td>
<td>0.0033</td>
<td>0.0048</td>
<td>0.0035</td>
</tr>
<tr>
<td>Prob.*</td>
<td>(0.0110)</td>
<td>(0.00108)</td>
<td>(0.0112)</td>
</tr>
<tr>
<td>$X^2$ Wald/Stat-F</td>
<td>7.032**</td>
<td>9.241**</td>
<td>30920**</td>
</tr>
<tr>
<td>$X^2$ Hausman Test</td>
<td>-</td>
<td>25.73**</td>
<td>-</td>
</tr>
<tr>
<td>Squared-R</td>
<td>0.66</td>
<td>0.80</td>
<td>0.65</td>
</tr>
</tbody>
</table>

Note: *Sign. At 1%, **Sign at 5-percent, ***Sign at 10-percent, () standard error in sections.

The outcomes of the Pooled Common Least (POLS), Random-Fixed & regression effects analysis of the data are shown in Table 2: along with an analysis of their effects. The results of the Stata test, which was used to select among the basic Random-Fixed Effects & OLS model tests, are also included in the table. The outcomes of the Hausman test were likewise included in the table to help select the most effective metrics among the Random Effects & Fixed Model tests.

According to Table 2: Stata test results, the null hypothesis should not be accepted as the p-value (0.001) is less than the reliability limit of 0.05. Stata test's basic assumption is that the random effect has not changed. This suggests that using the POLS to evaluate the model will be inadequate. This truth is supported by the Hausman test results. Given that the calculated p-value was also below the significance limit of 1%, this shows a value of 25.73, which is significant and high. It is rejected that there is no reliability in the differences between the analyses resulting from the two estimation techniques. Therefore, the two estimation techniques show significant differences in their results.
The Appropriate Effects method, resulting in more positive results for the model in the context of these initial test results (Stata and Hausman tests), was therefore applied as a regression assessment strategy in this study. In light of this, fixed impact gauges explain how credit risk and other (control) variables affect the profitability such as (ROE) of the chosen Islamic banking sector.

According to table 2, there is a strong and positive correlation between ROE and the Musharakah Non-Performing Ratio (MNPR). This suggests that, with a small increase in the Musharakah Provisions Ratio (MPR), ROE will generally increase by 0.02%. At 0.05 significance, the relationship was highly significant. As an increase in the duration of the framework would be appropriate for supporting a decrease in return on equity, the Musharakah financing interruption (MFI) structure also significantly impacts Islamic banks' profitability (ROE). The coefficient value of 0.37 implies that 1% growth in MPR will improve resource profit by 0.37%. At a 5% alpha level, the obstacles structure influences return on equity.

As a result, it was determined that factors such as capital adequacy ratio (CAR), bank size (BS), credit risk (CR), and Musharakah size financing support significantly affect Islamic banking ROE. The significance of Musharakah measures the amount of ROE available to Islamic banks in cost and exchange. Since the amount of financing plays a significant role in determining the benefit factor on the exchange market, Islamic banks can take advantage of higher interest rates in this supportive mode. Although the table revealed the huge impact of Musharakah financing on resource profit (at 5% degree of relevance), housing, size, and influence were found to have a significant and positive impact on Islamic banks' profitability (ROE). The Effective Effects model is performing well, as evidenced by the R-Squared value of 0.80, which shows that differences in the credit risk variables predicted 80% of the significant variations in returns on equity (ROE).

5. Conclusion

The analysis indicated that arrangements for impeding Musharakah financing and Musharakah Non-Performing Ratio (MNPR) financing both had an impact on the profitability representation of the selected Islamic banks. The conclusion suggests that more benefits might be given on costs in addition to supporting exchanges when Islamic banks' exposure to credit risk increases in light of Musharakah Non-Performing Ratio (MNPR) financing. Islamic banks may be logical to charge more in future situations when considering previous supporting data from comparable exchanges. The results compare with Butt et al. (2022) but agree with (Syamlan et al., 2019; Supiyadi et al., 2017).

The conclusion relating to insufficient Musharakah financing suggests that the organization will develop in this manner with a significant Musharakah Non-Performing Ratio (MNPR). In the risk return limit theory, banks must charge more benefits to cover the risk since such a high disability provision implies a high credit risk exposure. Ultimately, this suggests that Musharakah financing must be further incentivized to reduce MNPR and improve the bank's financial stability.

In this study, Islamic banks' profitability (ROE) was examined in terms of different credit risk factors. Results of the study showed that the Musharakah non-performing lending structure and
ratio negatively impacted return on equity (ROE). Poor Musharakah and non-performing ratios also significantly impact return on equity (ROE). Mong (2015); Chowdhury et al. (2015) studied the relationship between credit risk and profitability (ROE). Based on these conclusions, the study assumed that (diminishing) credit risk exposure resulting from Musharakah financing would typically affect Islamic banks' profitability (ROE). Therefore, Islamic banks increase their support for Musharakah, which minimizes their transparency to high credit risk and removes its disadvantage. Auditing the costs linked to various Islamic bank results is also critical since this will generally affect clients' ability to contribute.

5.1 Limitation Research
As a limitation, this study did not consider other factors that may influence Islamic banks' profitability, such as macroeconomic indicators or the performance of other financial institutions. Moreover, the study focused only on a few specific credit risk factors, such as Musharakah and non-performing ratios, which may not adequately represent the whole picture of credit risk in Islamic banking. In addition, the study did not discuss in greater detail the implications of the findings. It was discussed how the findings could be used to enhance transparency and profitability in Islamic banking.

5.2 Future Research
Future research should focus on understanding the relationship between Islamic banking and credit risk factors and their impact on Islamic bank profitability (ROE). Additionally, the impact of regulatory policies on Islamic banking should be studied to determine how to effectively manage Islamic banks and their profitability. Finally, more research is needed to understand the factors that lead to Islamic banking success, such as customer trust and satisfaction. All in all, further research is essential in order to better understand how Islamic banks operate, as well as to better support them in achieving profitability.
References


