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The Effect of Efficiency, Capital Adequacy and Liquidity on the Financial Performance of Commercial Banks in Indonesia with Foreign Share Ownership as Moderator

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Abstract

This study aims to determine the effect of efficiency (BOPO), capital adequacy (CAR), and liquidity (LDR) on the financial performance of commercial banks with foreign share ownership as a moderator variable. This research was conducted on commercial banks included in the KBMI 3 and KBMI 4 categories with the research period 2017 - 2022. The sampling technique used in this research is saturated sample with a total sample of 13 commercial banks. The results of this study indicate that efficiency (BOPO) has a significant negative effect on financial performance while capital adequacy, liquidity has no effect on financial performance. Furthermore, foreign share ownership is able to moderate the effect of capital adequacy on financial performance but has not been able to moderate the effect of independent variables efficiency and liquidity on the financial performance of KBMI 3 and KBMI 4 category banks.

Keywords: BOPO, CAR, LDR, Foreign Share Ownership, Commercial Banks.

1. INTRODUCTION

The classification of Commercial Banks in Indonesia based on the Financial Services Authority Regulation No.12/POJK.03/2021 of 2021 is based on the core capital owned by banks, namely KBMI 1 with core capital up to IDR6 Trillion; KBMI 2 with core capital of more than IDR6 Trillion up to IDR14 Trillion; KBMI 3 with core capital of more than IDR14 Trillion up to IDR70 Trillion and KBMI 4 with core capital of more than IDR70 Trillion. All of these banks have a target to generate profit as much as possible from year to year. Bank Indonesia and the Financial Services Authority, which are Bank control and supervision institutions, prefer the ROA (Return On Asset) ratio to show bank profitability because Bank Indonesia prioritises the value of banking profitability as measured by assets whose funds predominantly come from public deposits (Susilawati & Nurulrahmatiah, 2021).

Indonesian Banking Statistics data issued by Financial Services Authority (OJK) shows the trend of commercial banks' financial performance from 2017 to 2022 as shown in the following figure 1.

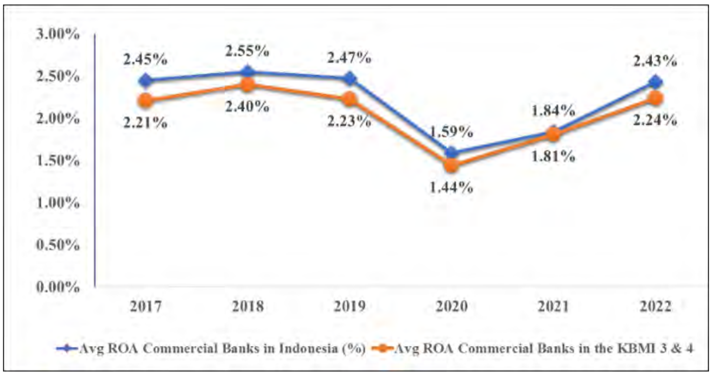

Figure 1. Financial Performance (ROA) Conventional Banks in Indonesia
Source : Statistik Perbankan Indonesia (ojk.go.id)

Based on Figure 1.1, the average financial performance of Commercial Banks in Indonesia fluctuates. In 2020 and 2021, the average ROA value is below the ROA standard of 2.00%. This condition also occurs with the ROA of commercial banks included in the KBMI 3 and KBMI 4 categories. Even the average value of ROA of commercial banks in the KBMI 3 and KBMI 4 categories that have more capital is still below the average value of banking ROA in Indonesia. This indicates that there are factors that can affect banks in generating profits as measured by return on assets (ROA). In accordance with Bank Indonesia Circular Letter No.13/24/DPNP dated 25 October 2011, bank assessment is carried out through a qualitative approach to factors that affect the condition and development of banks, including capital factors (Capital), asset quality, management factors (Management), profitability factors (Earnings), liquidity factors (Liquidity) (Winarso & Park, 2020).

Bank capital can be measured using the Capital Adequacy Ratio (CAR), which is the bank's ability to meet minimum capital obligations or what is called solvency or the ability to pay its obligations (Winarso & Park, 2020). According to Sarjono & Suprapto (2020), CAR represents the bank's funding level and an indication of the relative proportion of equity and debt used to finance the company's assets. Some previous researchers have conducted research on the relationship between capital adequacy and banking financial performance with inconsistent results. Some of the results of previous studies prove that the CAR ratio has a positive effect on banking financial performance (Nugroho, Mangantar, & Tulung, 2019; Ratnawati et al., 2022; Rembet & Baramuli, 2020; Safitri, Suyanto, Maximus, & Prasilowati, 2020; Yulianto, Nurlaela, & Masitoh, 2020; Yusuf & Ichsan, 2021). However, there are also research results that find that the CAR ratio has no effect on banking financial performance. (Chandra & Anggraini, 2020; Hasanah & Hariyono, 2022; Rokhayati, Cahyo, & Mulwati, 2020; Usman & Lestari, 2019; Widyarini & Santoso Marsoem, 2021). In addition, there are also research results that show that the CAR ratio has a negative effect on financial performance (Abdurrohman, Fitrianingsih, Salam, & Putri, 2020; Anggraini, Nita Aryani, Budi Prasetyo, & Malang Kucecwara, 2020; Barasa & Hikmah, 2021)

Furthermore, to increase profitability, banks make efficiency on the company's operating costs. To measure the level of efficiency of a bank, it can use the BOPO ratio (operational efficiency ratio). The BOPO ratio is calculated by comparing operating costs with operating income. The banking industry is an intermediary institution that uses many inputs and outputs, so the measurement of the level of efficiency using the BOPO ratio is considered to describe the level of efficiency of a bank. Therefore, the measurement of efficiency in banks can be an indicator to measure the financial performance of banks. Research related to the effect of the BOPO ratio on banking financial performance also provides inconsistent results. Research conducted by Cuandra & Setiawan, (2020); Hidayat & Kurniasih, (2022); Purnamasari, (2020); Widyarini & Santoso Marsoem, (2021); Yulianto et al., (2020); Yusuf & Ichsan, (2021) found that the BOPO ratio has a significant negative effect on bank financial performance. However, there are also research results that find that the BOPO ratio has a significant positive effect on bank financial performance (Chandra & Anggraini, 2020; Hasanah & Hariyono, 2022; Parenrengi & Hendratni, 2018; Susilowati & Tiningrum, 2019). Meanwhile, according to Rembet & Baramuli (2020); Rohimah, (2021); Siagian et al., (2021), the BOPO ratio has no effect on bank performance.

Furthermore, an important factor in banking is bank liquidity, which is measured using the Loan to Deposit Ratio (LDR). The LDR ratio shows the bank's ability to pay public funds from its own capital and from loans that have been distributed to the public (Sarjono & Suprapto, 2020). The lower limit of the Loan to Deposit Ratio (LDR) target is 78%, while the upper limit of the Loan to Deposit Ratio (LDR) target is 94%. The effect of liquidity on financial performance has also been studied by previous researchers who found inconsistent results. Some previous research results suggest that the liquidity ratio has a significant positive effect on banking financial performance (Haryanto et al., 2021; Hermuningsih & Rahmawati, 2022; Jaworski & Czerwonka, 2021; Musyrifah, 2020; Suyanto, 2021; Waswa et al., 2018; Zaineldeen, 2018). However, based on the results of research by (Anggraini et al., 2020; Widyarini & Santoso Marsoem, 2021; Yulianto et al., 2020), the LDR ratio has no significant effect on banking financial performance. Meanwhile, other studies have found that the LDR ratio has a significant negative effect on banking financial performance as measured by the ROA ratio (Chandra & Anggraini, 2020; Mosharrafa & Islam, 2021; Reskita & Purwanto, 2019).

In principle, to be able to produce good financial indicators, of course, requires financing / funding from company owners and close supervision from shareholders. Ownership structure is one of the factors that can influence the financing and investment decisions of the company (Siswanti & Prowanta, 2021). The company's objectives will be determined by the ownership structure, the motivation of owners and creditors, corporate governance that shapes the incentives or motivation of managers. Companies controlled by foreign parties/investors are considered to perform better because they have better transparency and control options. Foreign investors supervise all company activities and managers' actions to ensure that the company operates in good faith.

Research related to the effect of foreign ownership on banking financial performance also provides inconsistent results. Some research results show that the ownership structure of foreign management is considered to have a positive effect on company (Abdallah & Ismail, 2017; Al-Janadi, 2021; Din, Arshad Khan, Khan, & Khan, 2022; Iwasaki, Ma, & Mizobata, 2022; Kao, Hodgkinson, & Jaafar, 2019; Matari, Matari, & Saif, 2017; Tjahjadi & Tjakrawala, 2020). Different results were presented by Allina & Aris (2022); Amin & Hamdan, (2018); Fahlevi et al., (2023); Ritha (2016); Suman et al.,(2016) which shows that there is no effect of foreign management ownership structure on company performance. In this study, the foreign share ownership variable is a moderator variable because there are inconsistencies in the results of research on the relationship between foreign ownership and financial performance and until now research examining this is also still limited. Inconsistent results in previous studies are a strong reason to use foreign ownership as a moderator variable (Rahadi & Farid, 2021).

Based on the above conditions and the inconsistency of research results, it is necessary to conduct further research to determine whether efficiency, capital adequacy and liquidity have an influence on the financial performance of banks in the KBMI 3 and 4 categories in Indonesia and to find out whether the presence of foreign share ownership is able to moderate the influence of efficiency, capital adequacy and liquidity on the financial performance of banks in the KBMI 3 and 4 categories in Indonesia during the period 2017 to 2022.

2. LITERATURE REVIEW

2.1 Efficiency on The Financial Performance of Commercial Banks In Indonesia.

Efficiency is one of the performance parameters that theoretically underlies the performance of an organisation. The ability to produce maximum output with existing inputs is a measure of expected performance. When efficiency measurement is conducted, banks are faced with the condition of how to get the optimal level of output with the existing level of input, or get the minimum level of input with a certain level of output (Hadad, Santoso, Mardanugraha, & Illyas, 2003)

The Bank's efficiency level can be measured through the ratio of operating costs to operating income (BOPO) in accordance with PBI No.14/26/PBI/2012 Article 21 regarding the achievement of the Bank's efficiency level. This ratio is used to measure the ability of bank management in controlling operating costs against operating income. The greater the BOPO ratio, the less efficient the bank is in managing/controlling its operating costs. If the bank is inefficient, the profit earned will decrease. Several previous studies have suggested that the BOPO ratio has a significant negative impact / influence on banking financial performance as measured by return on assets (Chandra & Anggraini, 2020; Cuandra & Setiawan, 2020; Hidayat & Kurniasih, 2022; Purnamasari, 2020; Widyarini & Santoso Marsoem, 2021; Yulianto et al., 2020; Yusuf & Ichsan, 2021). Based on the theory and previous research above, the proposed hypothesis is as follows:

H1: Efficiency (BOPO) has a significant negative effect on the Financial Performance of Commercial Banks in Indonesia.

2.2 Capital Adequacy (CAR) on The Financial Performance of Commercial Banks In Indonesia.

Bank management must ensure that the bank has sufficient capital to support operations and is able to plan capital requirements to support business development and compete with competitors. To calculate capital adequacy can use the CAR (Capital Adequacy Ratio) ratio. The capital adequacy ratio (CAR) is a ratio that shows the extent to which all risky bank assets (financing, investments, securities and receivables from other banks) are financed by the bank's own capital assets in addition to loans (Anggraeni & Citarayani, 2022) so that the higher the Capital Adequacy Ratio (CAR) means that the bank has sufficient capital to finance all assets that contain risk.

The results of previous studies show that under the level of capital adequacy (CAR) has a significant positive effect on financial performance (D. Nugroho et al., 2019; Ratnawati et al., 2022; Rembet & Baramuli, 2020; Safitri et al., 2020; Yulianto et al., 2020; Yusuf & Ichsan, 2021) Based on the theory and previous research above, the hypotheses proposed are:

H2: Capital Adequacy (CAR) has a significant positive effect on the Financial Performance of Commercial Banks in Indonesia.

2.3 Liquidity (LDR) on the Financial Performance of Commercial Banks in Indonesia

According to Darmawi, (2018), liquidity is a term used to refer to the supply of cash and other assets that can be easily used as liquidity. Another definition of liquidity is a condition related to the provision of capital and other liquidity instruments controlled by the bank concerned. Liquidity is the ability to fulfil all obligations in a short time. Based on the definition above, it can be concluded that the higher the liquidity ratio, the better the bank's ability to manage its intermediation function optimally. Conversely, the lower the liquidity ratio, the less liquid it is because many dormant funds (unused funds) cause the intermediation function to not run well and reduce the possibility of obtaining higher income (Arfiyanti & Pertiwi, 2020) . However, if the liquidity ratio is too high, there is a risk of decreasing bank liquidity because more funds are allocated to financing.

The results of previous research show that the loan to deposit ratio (LDR) has a significant positive effect on bank performance (Haryanto et al., 2021; Hermuningsih & Rahmawati, 2022; Jaworski & Czerwonka, 2021; Musyrifah, 2020; Suyanto, 2021; Waswa et al., 2018; Zaineldeen, 2018). Based on the theory and previous research above, the hypothesis proposed is as follows

H3: Liquidity (LDR) has a significant positive effect on the Financial Performance of Commercial Banks in Indonesia.

2.4 Foreign Share Ownership in moderating the effect of Efficiency on Financial Performance of Commercial Banks in Indonesia.

The relationship between ownership structure and firm performance is primarily based on agency theory (Jensen & Meckling, 1976). From the agency theory view, firms will benefit from high levels of foreign ownership as foreign investors demand higher standards of corporate governance and take on the role of active monitors. Foreign share ownership will improve financial performance due to the ability of foreign investors to monitor the company more seriously, the implementation of new technologies that companies have abroad so that they can save on company operating costs (Balagobei & Velnampy, 2017)

In addition, foreign shareholders are considered to have good managerial skills, can manage the company effectively, have high commitment, and are not vulnerable to political pressure (Ritha, 2019). Some previous research results show that foreign management ownership has a positive effect on company financial performance (Abdallah & Ismail, 2017; Al-Janadi, 2021; Din et al., 2022; Iwasaki et al., 2022; Kao et al., 2019; Matari et al., 2017; Tjahjadi & Tjakrawala, 2020).Based on the theory and previous research above, the hypothesis proposed is as follows:

H4: Foreign Share Ownership is able to moderate the effect of efficiency on the Financial Performance of Commercial Banks in Indonesia.

2.5 Foreign Share Ownership in moderating the effect of Capital Adequacy on the Financial Performance of Commercial Banks in Indonesia.

In order to increase the profits earned by the company, foreign ownership or foreign investors will bring finance, marketing and technology that can assist company managers in improving the company's financial performance (Yavaş & Erdogan, 2016). In addition, foreign share ownership can also improve the quality of the company's capital because it has access / facilities to obtain more funds from existing international relations.

Companies that have a good level of capital adequacy will certainly be able to run smoothly and will have an impact on improving the company's financial performance (D. Nugroho et al., 2019; Ratdogan, 2019). Nugroho et al., 2019; Ratnawati et al., 2022; Rembet & Baramuli, 2020; Safitri et al., 2020; Yulianto et al., 2020; Yusuf & Ichsan, 2021).

This correlation is expected to be further strengthened by the existence of foreign share ownership, which based on previous research shows that foreign share ownership has a positive effect on company performance (Abdallah & Ismail, 2017; Al-Janadi, 2021; Din et al., 2022; Iwasaki et al., 2022; Kao et al., 2019; Matari et al., 2017; Tjahjadi & Tjakrawala, 2020). Based on the theory and previous research above, the hypothesis proposed is as follows:

H5 : Foreign Share Ownership is able to moderate the effect of capital adequacy (CAR) on the Financial Performance of Commercial Banks in Indonesia.

2.6 Foreign Share Ownership in moderating the effect of Liquidity on the Financial Performance of Commercial Banks in Indonesia.

Foreign ownership in the company can increase the benefits obtained by the company because foreign ownership or foreign investors will bring finance, marketing and technology that assist company managers in improving the company's financial performance (Yavaş & Erdogan, 2016). The company will be supervised by external parties / foreign investors who have a better level of transparency and monitoring / control in management techniques, corporate governance mechanisms and information technology (Karyani & Obrien, 2020)

Better monitoring from foreign investors is expected to have an impact on the liquidity of the company being maintained. This is motivated because foreign investors / shareholders have good skills and experience in finance and business so that the existence of foreign share ownership can have a positive effect on the company's financial performance (Abdallah & Ismail, 2017; Al-Janadi, 2021; Din et al., 2022; Iwasaki et al., 2022; Kao et al., 2019; Matari et al., 2017; Tjahjadi & Tjakrawala, 2020). Based on the theory and previous research above, the hypothesis proposed is as follows:

H6 : Foreign share ownership is able to moderate the effect of liquidity (LDR) on the financial performance of Commercial Banks in Indonesia.

2.7 Conceptual Framework

Based on the description and hypothesis above, the conceptual framework in this study can be described as follows:

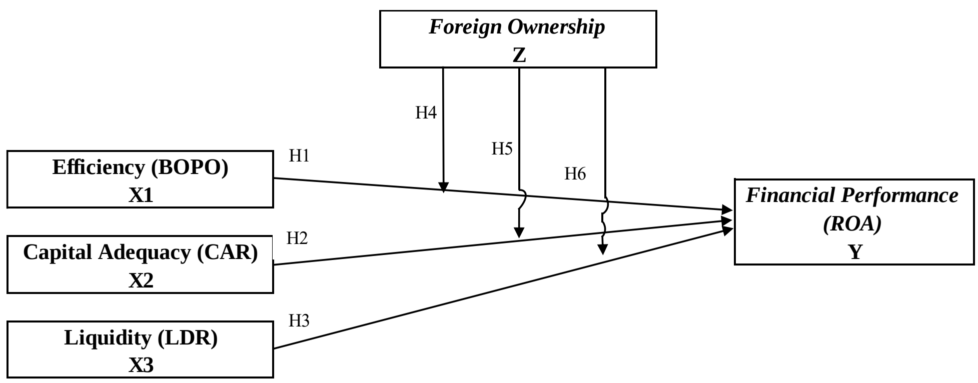

Figure 2. Research Framework

3. RESEARCH METHODOLOGY

This study uses quantitative research methods using quantitative data in the form of numbers and secondary data sourced from annual financial reports of banks listed on the Indonesia Stock Exchange. Based on the data source, this study uses secondary data with the type of data in the form of time series for 6 (six) years from the financial statements and annual reports of banks from 2017 to 2022. Secondary data sources are sources that do not provide data directly to data collectors, such as through other people or through documents (Hartono, 2000). Judging from the type, this research is a type of ex post facto research, because this research is conducted to examine an event that occurs without direct manipulation of variables or does not create certain conditions. This type of research includes causal research, which is research that tests hypotheses and determines the relationship and influence between two or more variables on other variables.

Profitability measures can be presented using several ratios related to profitability, including those related to sales using profit margin and expense ratio, related to investment can be measured by return on assets, return on equity, and return on capital employed (Sihombing, 2018). To measure financial performance / banking profitability, Bank Indonesia uses the Return On Asset (ROA) assessment because Bank Indonesia prioritises the value of banking profitability as measured by assets whose funds predominantly come from public deposits (Susilawati & Nurulrahmatiah, 2021). Return On Asset (ROA) is one of the profitability ratios that uses the link between net income and assets (Sihombing, 2018) which can be formulated as follows:

$$ROA = \frac{Net\ Profit\ After\ Tax}{Total\ Asset}\ x\ 100$$

Source: Sihombing (2018)

The BOPO ratio (Operating Expenses to Operating Income) which is often called the efficiency ratio is used to measure the ability of bank management to control operating costs against operating income. Operating costs are costs incurred by the bank in order to carry out its activities, while operating income is all forms of income obtained from bank activities. According to Hasibuan (2017), Operating cost of operating income (BOPO) is the ratio of operating costs to operating income (BOPO) formulated as a comparison or operating costs to operating income in the same period which can be formulated as follows:

$$BOPO \quad = \frac{Operating\ Expense}{Operating\ Income}\ x\ 100\%$$

Source: Hasibuan (2017)

Capital Adequacy Ratio (CAR) can be used to evaluate whether the bank has sufficient capital to bear the risk of assets that carry risk, such as loans, stocks, bonds, bank loans, and others (Saputri & Supramono, 2021). The Capital Adequacy Ratio (CAR) is a measure of the extent to which the bank's risk-bearing assets can be financed by the bank's own capital in addition to obtaining from sources outside the bank (Sarjono & Suprapto, 2020). Based on BI Circular Letter 13/24/DPNP/2011, the Capital Adequacy Ratio (CAR) can be calculated as follows:

$$CAR = \frac{Capital}{ATMR}\ x\ 100\%$$

Source: BI Circular Letter 13/24/DPNP/2011

According to Kasmir (2018), the LDR ratio is a comparison between total loans granted and total Third Party Funds (DPK) that can be collected by banks. LDR will show the level of the bank's ability to distribute third party funds raised by the bank concerned. Kasmir (2018) explains that the safe limit of a bank's LDR is around 80%. However, the maximum LDR limit is 110%. The LDR ratio is calculated by comparing credit with third party funds where the credit used is the total credit given to third parties, and does not include credit given to other parties. While third party funds are current accounts, savings, and deposits that do not include interbank. This ratio can be formulated as follows:

$$LDR = \frac{Total\ Third\ Party\ Loans}{Total\ Third\ Party\ Funds}\ x\ 100\%$$

Source: Kasmir (2018)

Foreign ownership is the portion of shares owned or capital invested by foreign parties either individually, legal institutions, institutions or government bodies with foreign status to the total shares outstanding, in other words, this portion can provide a control over the company or institution it owns. The percentage of foreign share ownership can be calculated using the following equation (Sumantaningrum & Kiswara, 2017) :

$$Foreign\ Ownership\ = \frac{Total\ Shares\ owned\ by\ foreign\ investors}{Total\ Shares\ of\ the\ Company\ in\ circulation}\ x\ 100\%$$

Source: Sumantaningrum & Kiswara, (2017)

The population in this study are all banking sector companies included in the classification of bank groups based on core capital 3 and 4 listed on the Indonesia Stock Exchange during 2017 to 2022. The total population in this study was 13 commercial banks. To determine the number of samples from which the data will be taken, the researcher uses a saturated sampling technique. According to Sugiyono (2021), saturated sampling is a technique for taking or collecting samples in a population, when all members of the population are used as samples in the study. The sample in this study were 13 Commercial Banks, this is based on the use of saturated sampling techniques where the population in this study were 13 Commercial Banks. The following is the sample data used in this study:

Table 1. List of Sample

No	Company Name	Bank Code
1	Bank Rakyat Indonesia (Persero) Tbk	BBRI
2	Bank Mandiri (Persero) Tbk	BMRI
3	Bank Central Asia Tbk	BBCA
4	Bank Negara Indonesia (Persero) Tbk	BBNI
5	Bank Pan Indonesia Tbk	PNBN
6	Bank Danamon Indonesia Tbk	BDMN
7	Bank CIMB Niaga Tbk	BNGA
8	Bank BTPN Tbk	BTPN
9	Bank Permata Tbk	BNLI
10	Bank OCBC NISP Tbk	NISP
11	Bank Maybank Indonesia Tbk	BNII
12	Bank Tabungan Negara (Persero) Tbk	BBTN
13	Bank Mega Tbk	MEGA

Source : Data processed (2023)

The data analysis method used in this research is quantitative analysis with theory testing through secondary data analysis sourced from the annual report of commercial banks that are the sample of the study, followed by descriptive statistical test procedures, inferential statistical tests in the form of multiple linear regression analysis, panel data regression model selection, classical assumption tests, significance tests and finally Moderated Regression Analysis (MRA) with Eviews 12 software analysis tools.

4. RESULTS

4.1 Descriptive Statistical Analysis

Table 2. Descriptive Statistical

	ROA	BOPO	CAR	LDR	SA
Mean	0.021641	0.771167	0.229346	0.879615	0.564333
Median	0.021000	0.783500	0.224000	0.878000	0.424500
Maximum	0.042000	0.981000	0.357000	1.630000	0.988000
Minimum	0.001000	0.465000	0.168000	0.565000	0.045000

Source : Data processed Eviews 12 (2023)

On the measurement of Return on Asset (ROA), the average value is 0.0216 or 2.16%. This result shows that the average ROA of commercial banks included in the KBMI 3 and 4 categories has a very good ROA value (ROA value > 2%). During the period 2017 to 2022, the lowest ROA value was generated by PT Bank Tabungan Negara (Persero) Tbk in 2019 amounting to 0.00139 or 1.39%. The above was influenced by a decrease in pre-tax profit performance and the impact of the impairment loss reserve (CKPN) charge on PT BTN (Persero) Tbk which was quite large as a form of preparation in facing the implementation of PSAK 71 in early 2020. Meanwhile, the highest ROA value was generated by PT Bank Mega Tbk of 0.0422 or 4.22% which was supported by net profit growth of 33.23% from 2020.

In the BOPO variable, the average value is 0.7711 or 77.11%. This result shows that the average BOPO of commercial banks included in the KBMI 3 and 4 categories during the period 2017 to 2022 has a BOPO value with a very good predicate (BOPO ≤ 94%). The lowest BOPO value of 0.4650 or 46.50% was generated by PT Bank Central Asia Tbk in 2022. While the highest BOPO value of 0.9812 or 98.12% (very bad predicate with BOPO value> 97%) was generated by PT Bank Tabungan Negara (Persero) Tbk in 2019.

Furthermore, the CAR value has an average value of 0.2294 or 22.92%. This result shows that the average CAR value of commercial banks in the KBMI 3 and KBMI 4 categories during the period 2017 to 2022 is included in the very good category (CAR ≥ 12%). The lowest CAR value of 0.168 or 16.80% was generated by PT Bank Negara Indonesia (Persero) Tbk in 2020. While the highest CAR value was generated by PT Bank Permata Tbk of 0.0357 or 35.70% in 2020.

During the observation period 2017 to 2022, the average LDR value was 0.8795 or 87.95%. This result shows that the average LDR value of commercial banks in the KBMI 3 and KBMI 4 categories is in the bad category (LDR value is in the range of 87% < LDR ≤ 92%). The lowest

LDR value was generated by PT Bank Mega Tbk in 2017 of 56.47%. While the highest LDR value was generated by PT.Bank Tabungan Pensiun Nasional Tbk of 163% in 2019.

The foreign share ownership variable has an average value of 0.5643 or 56.43%. The bank that has the lowest foreign share ownership is PT.Bank Mega Tbk of 4.51% in 2022. Meanwhile, PT Bank Permata Tbk is the bank with the highest foreign share ownership of 98.77% in 2020.

4.2 Regression Model Selection Test

Based on the results of the Hausman Test and the Lagrange Multiplier Test, it shows that the best panel data regression model used in this study is the random effect model. The model selection results can be seen in the following table:

Table 3. Panel Data Regression Model Selection Results

Testing	Hypothesis	Results
Chow Test	*Common Effect Model* vs *Fixed Effect Model*	*Fixed Effect Model*
Hausman Test	*Random Effect Model* vs *Fixed Effect Model*	*Random Effect Model*
LM Test	*Common Effect Model* vs *Random Effect Model*	*Random Effect Model*

4.3 Normality Test

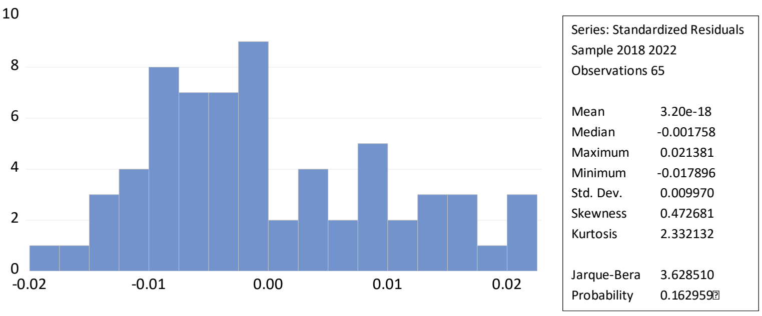

Figure 3. Normality Test

The figure above shows the Jarque-Bera probability value of 0.162959> 0.05 so this shows that the data is normally distributed.

4.4 Multicollinearity Test

Table 4. Multicollinearity Test

	X1BOPO	X2CAR	X3LDR
X1BOPO	1.000000	-0.157304	0.215520
X2CAR	-0.157304	1.000000	-0.215139
X3LDR	0.215520	-0.215139	1.000000

Source : Data processed Eviews 12 (2023)

Based on the table above, all correlation coefficient numbers are less than 0.90 which indicates that there is no correlation value between independent variables. Thus it can be concluded that the model is free from multicollinearity problems.

4.5 Heteroscedaticity Test

Table 5. Heteroscedaticity Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.013319	0.004438	3.001529	0.0039
X1BOPO	0.007536	0.006392	1.178987	0.2430
X2CAR	-0.018636	0.012217	-1.525450	0.1323
X3LDR	-0.004424	0.003090	-1.431777	0.1573

Source : Data processed Eviews 12 (2023)

Based on the probability value, each variable has a value greater than 0.05 so this indicates that there are no symptoms of heteroscedasticity in the regression model tested.

4.6 Goodness of Fit Test

4.6.1 Coefficient of determination R2 (R-Square)

Table 6. Coefficient of Determination R2 (R-Square)

Weighted Statistics			
Root MSE	0.005366	R-squared	0.175790
Mean dependent var	0.006404	Adjusted R-squared	0.135255
S.D. dependent var	0.005957	S.E. of regression	0.005540
Sum squared resid	0.001872	F-statistic	4.336740
Durbin-Watson stat	1.089089	Prob(F-statistic)	0.007778

Source : Data processed Eviews 12 (2023)

The coefficient of determination for the banking financial performance variable proxied by Return On Asset (ROA) is 0.1352. This shows that 13.52% of the value of banking financial performance can be influenced by Efficiency (BOPO), Capital Adequacy (CAR), and Liquidity (LDR). The rest is influenced by other factors that are not explained and included in this research model.

4.6.2 F-Statistic Test

Table 7. Coefficient of Determination R2 (R-Square)

Weighted Statistics			
Root MSE	0.005366	R-squared	0.175790
Mean dependent var	0.006404	Adjusted R-squared	0.135255
S.D. dependent var	0.005957	S.E. of regression	0.005540
Sum squared resid	0.001872	F-statistic	4.336740
Durbin-Watson stat	1.089089	Prob(F-statistic)	0.007778

Source : Data processed Eviews 12 (2023)

Based on the table above, the probability value is 0.0077 or less than the significance value (Sig ≤ 0.05) so that simultaneously the independent variable has a significant effect on the dependent variable.

4.7 Hypothesis Test (t)

Table 8. t-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.014377	0.010614	1.354543	0.1806
X1BOPO	-0.037328	0.010115	-3.690304	0.0005
X2CAR	-0.006649	0.025145	-0.264409	0.7924
X3LDR	0.009106	0.007324	1.243220	0.2185

Source : Data processed Eviews 12 (2023)

For the Efficiency variable (BOPO), the probability value at the α = 5% significance level is 0.0005 or smaller than the α = 0.05 value with a regression coefficient value of -0.037. So with these results, it can be stated that Efficiency proxied by BOPO has a significant negative influence on financial performance proxied by ROA. The regression coefficient value shows that if every one unit increase in BOPO will reduce the value of financial performance by 0.037 and vice versa. For the Capital Adequacy (CAR) variable, the probability value at the α = 5% significance level is 0.7924 or greater than the α = 0.05 value with a regression coefficient value of -0.006. So it can be stated that Capital Adequacy (CAR), has no influence on financial performance proxied by ROA. Furthermore, for the Liquidity variable (LDR), the probability value at the α = 5% significance level is 0.2185 or greater than the α = 0.05 value with a regression coefficient value of 0.009. So with these results, it can be stated that Liquidity (LDR) has no influence on financial performance proxied by ROA.

4.8 Moderation Test

4.8.1. Moderation Test of Foreign Share Ownership on the effect of Efficiency on Bank Financial Performance

Table 9. Moderation Test Results of Foreign Share Ownership on the effect of Efficiency on Bank Financial Performance

No	Variable	Coefficient	Std. Error	t-Statistic	Prob.	Description	Conclusion
1	C	0.025	0.004	6.840	-	Prob. >0,05 insignificant ; Adjusted R-squared 13.89%	non moderator
	X1BOPO	- 0.033	0.010	- 3.262	0.002		
	SA	- 0.007	0.005	- 1.303	**0.197**		
2	C	0.025	0.003	7.057	-	Prob. >0,05 insignificant ; Adjusted R-squared 14,39%	
	X1BOPO	- 0.051	0.018	- 2.801	0.007		
	SA	- 0.007	0.005	- 1.301	0.198		
	SA_BOPO	0.038	0.032	1.197	**0.236**		

Source : Data processed Eviews 12 (2023)

Based on the results in table 9 above, it shows that the effect of foreign share ownership variable (SA) on ROA (Return On Asset) in output 1 and the effect of foreign share ownership variable (SA) * Efficiency (X1BOPO) in output 2 both have probability values greater than 0.05. So it can be concluded that the foreign share ownership variable (SA) is not a moderator variable in the interaction between BOPO and Return On Asset.

4.8.2. Moderation Test of Foreign Share Ownership on the Effect of Capital Adequacy on Bank Financial Performance

Table 10. Moderation Test Results of Foreign Share Ownership on the Effect of Capital Adequacy on Bank Financial Performance

No	Variable	Coefficient	Std. Error	t-Statistic	Prob.	Description	Conclusion
1	C	0.023	0.006	4.040	0.000	Prob. >0,05 insignificant ; Adjusted R-squared -1,73%	pure moderator
	X2CAR	0.005	0.024	0.216	0.830		
	SA	- 0.005	0.006	- 0.824	**0.413**		
2	C	- 0.022	0.014	- 1.546	0.126	Prob. <0,05 significant; Adjusted R-squared 10,77%	
	X2CAR	0.201	0.061	3.290	0.002		
	SA	0.058	0.019	2.997	0.004		
	SA_CAR	- 0.267	0.079	- 3.399	**0.001**		

Source : Data processed Eviews 12 (2023)

Based on the results in table 10 above, it shows that the effect of foreign share ownership variable (SA) on ROA (Return On Asset) in output 1 has a probability value greater than 0.05 and the effect of foreign share ownership variable (SA)* Capital Adequacy (x2CAR) in output 2 has a probability value smaller than 0.05. So it is concluded that the foreign share ownership variable (SA) is a Pure Moderator. So it can be concluded that the foreign share ownership variable (SA) is a Pure Moderator. In addition, the adjusted Chi-Square value generated in the first model estimation is -1.73%, while in the second model estimation it increases to 10.77%, indicating that foreign share ownership (SA) can strengthen the relationship of capital adequacy (CAR) to ROA.

4.8.3. Moderation Test of Foreign Share Ownership on the effect of Liquidity on Bank Financial Performance

Table 11. Moderation Test Results of Foreign Share Ownership on the Effect of Liquidity on Bank Financial Performance

No	Variable	Coefficient	Std. Error	t-Statistic	Prob.	Description	Conclusion
1	C	0.020	0.007	3.000	0.004	Prob. >0,05 insignificant ; Adjusted R-squared -0,78%	non moderator
	X3LDR	0.006	0.007	0.869	0.388		
	SA	- 0.005	0.005	- 0.955	**0.343**		
2	C	0.045	0.015	3.075	0.003	Prob. >0,05 insignificant ; Adjusted R-squared 1,70%	
	X3LDR	- 0.023	0.017	- 1.370	0.175		
	SA	- 0.037	0.018	- 1.977	0.052		
	SA_LDR	0.035	0.021	1.685	**0.096**		

Source : Data processed Eviews 12 (2023)

Based on the results in table 10 above, it shows that the effect of the foreign share ownership variable (SA) on ROA (Return On Asset) in output 1 has a probability value greater than 0.05 and the effect of the foreign share ownership variable (SA) * Liquidity (X3LDR) in output 2 has a probability value greater than 0.05. So it is concluded that the foreign share ownership variable (SA) is a Pure Moderator. So it can be concluded that the foreign share ownership variable (SA) is a Non Moderator.

5. DISCUSSION AND CONCLUSION

The analysis results show that the efficiency proxied by the BOPO ratio has a significant negative effect on financial performance (ROA) with an observation period of 2017 to 2022. This shows that the higher the BOPO value of KBMI 3 and 4 Commercial Banks, the lower their financial performance (ROA) will be. The bank's operating costs are all types of costs directly related to the bank's business activities that are reflected in the bank's financial income statement. Operating costs are obtained by adding up the cost of profit sharing, labour costs, general administrative costs, depreciation costs and allowance for earning assets, building rental costs, investments and others related to the operations carried out by the company. The higher operating costs will reduce the amount of profit to be obtained because operational costs or expenses act as a deduction factor in the income statement.

The increase in operating costs can be caused by, among others, inefficiency in bank operating costs, an increase in interest rates, low growth in interest income compared to interest expenses, an increase in non-performing loans, an increase in impairment loss reserves (CKPN) and others. The results of this study are in line with previous research which suggests that the BOPO ratio has a significant negative impact / influence on banking financial performance as measured by return on assets (Chandra & Anggraini, 2020; Cuandra & Setiawan, 2020; Hidayat & Kurniasih, 2022; Purnamasari, 2020; Widyarini & Santoso Marsoem, 2021; Yulianto et al., 2020; Yusuf & Ichsan, 2021).

For CAR, the Prob value is 0.7924 or greater than the alpha value of 0.05, so it is found that CAR has no significant effect on financial performance (ROA). The analysis results show that capital adequacy proxied by the CAR ratio has no effect on Financial Performance (ROA) with the observation period 2017 to 2022. This shows that the increasing capital of KBMI 3 and 4 Commercial Banks does not necessarily improve the financial performance (ROA) of each bank. Capital adequacy owned by banks will provide protection for consumers/customers and the financial system as a whole.

Banks will be able to bear losses that may occur in the future due to poor market conditions or increased bad debts if they have sufficient capital or in accordance with what is determined by the regulator. During the study period, the value of CAR ratio of KBMI 3 and 4 Commercial Banks still met the requirements of the regulator but was not followed by an increase in bank management expansion so that it did not bring significant changes to the company's financial performance. The level of capital adequacy does not have a significant effect on ROA because banks have not been fully effective in using their capital potential to increase bank profitability, such as developing products and services outside of loans that can increase the company's fee-based income.

This condition is also influenced by the influence of the Covid-19 pandemic that occurred during the research period so that banks are very careful in the placement / use of existing capital given the unstable market conditions. The results of this study are in line with previous research which suggests that the CAR ratio does not have a significant impact / influence on banking financial performance as measured by return on assets. (Chandra & Anggraini, 2020; Hasanah & Hariyono, 2022; Rokhayati et al., 2020; Usman & Lestari, 2019; Widyarini & Santoso Marsoem, 2021)

As for LDR, the Prob value is 0.2185 or greater than the alpha value of 0.05 so it is obtained that LDR has no significant effect on financial performance (ROA). The analysis results show that liquidity proxied by the LDR ratio has no significant effect on financial performance (ROA) with the observation period 2017 to 2022. This shows that the increasing liquidity of KBMI 3 and 4 Commercial Banks does not necessarily improve the financial performance (ROA) of each bank. the lower the liquidity ratio, the less likely it is to earn more income. However, if the liquidity ratio is too high, there is a risk of decreasing bank liquidity because more funds are allocated to financing. Based on the research results, the average LDR ratio is in the bad category so it can be concluded that the bank's income potential can be depressed by the high provision for financing allocated by each Bank. The results of this study are in line with previous research which suggests that liquidity proxied by the LDR ratio has no significant effect on banking financial performance as measured by return on assets (ROA) (Anggraini et al., 2020; Widyarini & Santoso, 2020; Widyarini & Santoso Marsoem, 2021; Yulianto et al., 2020).

The results of the analysis show that foreign share ownership cannot moderate the effect of efficiency (BOPO) on financial performance (ROA) with an observation period of 2017 to 2022. This shows that the higher foreign share ownership in banking cannot strengthen the effect of efficiency (BOPO) on financial performance proxied by return on assets (ROA). Supervision by foreign investors of management actions has not been able to influence management policies in terms of the company's operational efficiency. Foreign share ownership based on the results of the study does not have a significant effect on financial performance so that it cannot moderate the effect of efficiency on financial performance. The results of this study are in line with previous research which shows that foreign share ownership cannot moderate the effect of efficiency (BOPO) on financial performance (ROA) (Allina & Aris, 2022; Amin & Hamdan, 2018; Fahlevi et al., 2023; Ritha, 2016; Suman et al., 2016).

Furthermore the result analysis show that foreign share ownership is able to moderate the effect of capital adequacy (CAR) on financial performance (ROA) with an observation period of 2017 to 2022. This shows that the higher foreign share ownership in banking will be able to strengthen the influence of capital adequacy (CAR) on financial performance proxied by return on assets (ROA). The entry of foreign investors into the company will increase the amount of capital owned by banks. In addition, foreign share ownership can also improve the quality of the company's capital because it has access / facilities to obtain more funds from existing international relations. Companies that have a good level of capital adequacy will certainly be able to run smoothly and will have an impact on improving the company's financial performance. The results of this study are in line with previous research which shows that foreign share ownership is able to moderate the effect of capital adequacy (CAR) on the financial performance (ROA) of a company (Abdallah & Ismail, 2017; Al-Janadi, 2021; Din et al., 2022; Iwasaki et al., 2022; Kao et al., 2019; Matari et al., 2017; Tjahjadi & Tjakrawala, 2020).

Based on the results of data processing show that foreign share ownership has not been able to moderate the effect of liquidity (LDR) on financial performance (ROA) with the observation period 2017 to 2022. This shows that the higher foreign share ownership in banking has not been able to strengthen the influence of liquidity (LDR) on financial performance proxied by return on assets (ROA). In addition, during the observation period there were several banks that in certain periods had ratio values below 78% and above 92%, which of course showed that the optimisation of liquidity use had not been carried out optimally and there was an increase in reserves due to high financing by banks. Banking liquidity will certainly increase with the increase of foreign investors in the company, but if it is not optimised optimally, it will not have an impact on increasing company profitability. The results of this study are in line with previous research which shows that foreign share ownership cannot moderate the effect of liquidity (LDR) on financial performance (ROA) (Allina & Aris, 2022; Amin & Hamdan, 2018; Fahlevi et al., 2023; Ritha, 2016; Suman et al., 2016).

From the description of the above conclusions, the management of the Commercial Banks studied to be able to manage the efficiency and liquidity of each bank with optimum considering that efficiency has a negative impact on banking financial performance and the average LDR banking results in 2017 - 2023 are in the bad category. In addition, investors can focus on the application of efficiency (BOPO) dan foreign ownership as a signal to filter companies that have good financial performance and become a signal in investing in these companies. To further see the effect of foreign share ownership, it is hoped that further research will add the number of samples of companies with dominant share ownership considering that the current research has limitations.

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The Role of The Formalization Process on The Product Innovation Results of Small and Medium-sized Private Enterprises in Vietnam

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Abstract

This study assesses the role of formalized business in the innovation activities of small and medium-sized enterprises (SMEs) in the private sector in Vietnam. Panel data regression analysis is employed in this study. Research data were extracted from three surveys of small and medium private enterprises conducted by the United Nations University (UNU) in 2011, 2013 and 2015. The dataset contains information about enterprises in all major manufacturing sectors, on innovation activity, firm formalization status, and enterprises' characteristics. Research results show that improving the status of the firm from informal to formal has a significant boost to the overall innovation performance, as well as each type of innovation of small and medium enterprises in Vietnam. This is the first study in Vietnam that examines the impact of formalization on product innovation outcomes of small and medium-sized private enterprises, taking into account the characteristics of enterprises such as size, age, technology level, and other specific features.

Keywords: Formalization, Innovation, Improvement, Innovation Results, Innovation Activities.

1. INTRODUCTION

Innovation is becoming increasingly crucial for competitive advantage, especially for enterprises with low capital scale. There are two research approaches to innovation, that is, (1) consider innovation as a process and the other view (2) consider innovation as an outcome (Crossan & Apaydin, 2010). Innovation is a process that deals with the question of "how," while innovation is a result of what deals with the aspect of "what". Innovation as a process considers where the innovation process takes place, the internal and external drivers for innovation (e.g., availability of resources and knowledge, market opportunities, adherence to a new standard), and the resources for innovation (internal and external). Meanwhile, innovation, as a result, focuses on innovation types (Product, process, organization, and marketing), innovation level (increase or advanced), and introducer (company, market, industry) used to assess novelty. Although innovation as a process precedes innovation, this aspect has received less attention than other issues (Crossan & Apaydin, 2010). The innovation process is an enterprise's comprehensive and complete set of activities to create conditions and support the innovation strategy. It refers to the ability to apply acquired knowledge to find new things, improve and optimize value creating methods and increase organizational productivity (Barbieri, Buonomo, Farnese, & Benevene, 2021; Beltramino, García-Perez-de-Lema, & Valdez-Juárez, 2020; Dilawo & Salimi, 2019; Duodu & Rowlinson, 2021). Nham Phong Tuan (2016) asserts that innovation is about innovation activities (products, processes, marketing, organization) and the results of those innovation activities in the organization (Nham Phong Tuan, 2016). Therefore, innovation creates a distinct competitive advantage for businesses. The success of many start-ups and small and medium enterprises in developing countries like Vietnam especially proves this. However, there are many factors affecting the innovation of firms, such as the role of knowledge capital (Prajogo & Ahmed, 2006), knowledge capital management (Jassawalla & Sashittal, 1998; Subramaniamand & Youndt, 2005), or the role of business formalization (Thao & Phuong, 2022). In this study, the authors use the connotations of enterprise innovation results through its three manifestations: (1) product innovation (new product introduction activities (Innovation 1); (2) product upgrades (Improvement 2); and (3) production processes and technology upgrades (Improvement 3).

Many studies on innovation have shown that innovation is influenced by one's knowledge (Hussinki, 2015), other characteristics such as enterprise size, enterprise age, leadership, technology characteristics..., may also influence decisions to apply new technology or management methods (Thao et al., 2021; Truong & Bui, 2022), affect the business performance (Hai, Xuan, Thao, & Hien, 2021; Xuan & Thao, 2021). Therefore, in this study, we also examine the role of these factors along with how the level of formalization affects the innovation results of small and medium-sized enterprises.

Business formalization is a term that has been mentioned a lot in recent years in Vietnam, primarily since 2016, when the start-up movement broke out in all localities across the country, and a series of activities are being carried out. Training and consulting activities have been implemented in localities to guide business households to transform from household business (informal) to enterprise (formalized) (Thao & Phuong, 2022). However, many business owners do not want to formalize their activities because they believe that their business scale is still good without formalization. They do not have to pay insurance for their employees or worry about labor costs, taxes, etc. Besides, formalization will lead to increased registration, tax payment, and employee insurance costs. Therefore, many businesses are still unregistered (Cling, Razafindrakoto, & Roubaud, 2012). However, the formalization of operations will also create many benefits for businesses, better access to public goods and services, infrastructure, a more extensive customer base, more professional operations, and especially conditions to build a foundation for sustainable development in the future (García-Herrero, Gavilá, & Santabárbara, 2009). Due to limited capital, technology, and innovation capacity, business households or SMEs need to build a solid foundation and maintain a competitive advantage. Therefore, it is necessary to have an early market strategy and orientation (Truong Duc Thao & Nguyen Duc Xuan, 2020), creating sources of knowledge capital for innovation activities to maintain competitiveness (Le Anh Hung, 2021).

Most governments consider private SMEs necessary for economic growth, income distribution, and job creation (Ayyagari, Demirguc-Kunt, & Maksimovic, 2014). In Vietnam, several SMEs account for most of the economy, especially in the private sector (Thao & Phuong, 2022). However, small and medium-sized enterprises often focus on low added value products only. In addition, many SMEs operate in the informal economy, making it difficult to expand their scale, with low growth, and their brand value is threatened, their credit access is also difficult, and the rights of workers are affected heavily due to working in the informal economic sector, (Thao & Phuong, 2022). Therefore, the government is currently implementing many measures to promote the establishment of new businesses, transform the form of activities from informal to formal (Thao & Phuong, 2022), creating a favorable environment for innovation activities in small and medium enterprises (Le Anh Hung, 2021).

From the problems above, the author raises the question, how does the formalization of SMEs' business activities in Vietnam affect innovation results? This process creates a distinct competitive advantage for businesses, building a foundation for sustainable development. Accordingly, the research paper is conducted by presenting data and research methods; next, the author presents key findings on the different effects of formalization on firms' innovation outcomes; finally, the author proposes management implications based on the findings in the analyzed data results. This study results can be a good reference source for planning households and SMEs managing policies in Vietnam and in developing countries of similar socio-economic characteristics.

2. DATA SOURCES AND METHODOLOGY

Data sources

The data used in this study were extracted from three surveys of small and medium-sized private manufacturing enterprises in 2011, 2013, and 2015. This dataset was investigated by the United Nations University (UNU). The dataset is an array of private manufacturing SMEs covering all major manufacturing sectors containing critical information on innovation activity, firm formalization status, and firm characteristics. This information allows researchers to examine the role of formalization in the innovation performance of SMEs. Based on this secondary data set, the authors estimate the model using linear regression according to Rand & Torm mathematical equation (2012) built to determine the level and the impact formalization on the innovation activities of enterprises. Accordingly, in this study, the authors simultaneously consider the impact of formalization on business innovation activities from an overall perspective and in detail of each component of product innovation (introducing new products (Improvement 1), product upgrades (Improvement 2), upgrades of production processes and technology (Improvement 3)).

Research Methods

In this study, the author uses a combination of qualitative and quantitative research methods, in which quantitative research methods are the main one. Qualitative research is used to collect and review theoretical concepts and components such as: the role of small and medium enterprises in the economy, the process of transitioning from formal to informal activities, the benefits achieved when SMEs formalize their operations, and its relationship with the innovation results of small and medium enterprises.

On the basis of the theoretical framework built by the qualitative research results, the authors exploited the secondary data to conduct quantitative research, by determining the relationship between formalization status and business innovation activities. To assess the impact of formalization on enterprise innovation, the model is based on previous studies, for example, Rand & Torm (2012), we have:

$$Y_{it} = \alpha_1 + \alpha_2 * Formalization_{it} + \alpha_3 * X_{it} + \alpha_4 * Z_{it} + v \qquad (1)$$

In there:

Y_{it} is the dependent variable, which includes innovation activities such as introducing a new product (Improvement 1), performing a product upgrade (Improvement 2), performing a process upgrade, and production technology (Improvement 3).

Formalization: measures the formalization status of small and medium-sized private enterprises.

X_{it} : is the vector including the characteristics of the enterprise such as enterprise size (number of employees); enterprise age (number of years of operation); export activities; pay informal fees; Business owners are members of the Communist Party, and businesses are members of business associations.

Z_{it}: are variables of industry characteristics (low, high, and medium technology) and time dummy variables to control for unobserved factors over time that affect the operation of enterprises.

3. RESULTS AND DISCUSSION

The results of the regression analysis in Tables 1, 2, 3, and 4 show that, in general, formalized enterprises have higher innovation capacity than informal. This result is consistent even when the model controls for important firm characteristics such as firm size, years of establishment, technological level, and social capital. For example, Table 1 shows that formalized small and medium-sized private enterprises are 14% more creative than informal ones. Which firm size positively affects the transition from informal to formal. Enterprises engaged in export activities will promote this process more powerfully. Enterprises that are members of business associations will tend to have more positive transformation than enterprises whose head is a Party member. Moreover, being low-tech or outdated will hinder the formalization process and thereby negatively affect the innovation results of SMEs. This is understandable because informal business is limited by the size of the labor force, the size of capital, etc. Therefore, increasing the scale of operations will create pressure for businesses to transform.

Similarly, for export firms or participating in commercial activities with corporate customers, the issues of contracts, invoices, and taxes are also a concern, leading to these enterprises needing to convert. Finally, enterprises with modern technology will create good conditions for innovation activities, increase market size and expand production activities; then, there will be a more robust level of transformation, and vice versa. Thus, the faster the transition from informal to formal, the stronger the innovation results of SMEs will be. In addition, enterprises with different characteristics will promote different transformation processes, indirectly affecting their innovation results.

Table 1. Effect of Formalization on Overall Improvement

Explanatory variable	**Innovation**	**Innovation**	**Innovation**	**Innovation**
	(first)	(2)	(3)	(4)
Formalization Status	0.140***	0.143***	0.103***	0.105***
	(0.013)	(0.014)	(0.014)	(0.014)
Enterprise size			0.001***	0.001***
			(0.000)	(0.000)
Enterprise age			-0.001	-0.001
			(0.001)	(0.001)
Export activities			0.110***	0.108***
			(0.028)	(0.029)

Unofficial fee payment			0.009	0.010
			(0.013)	(0.013)
The business owner is a member of the Communist Party			0.007	0.006
			(0.021)	(0.022)
Enterprises are members of business associations			0.094***	0.092***
			(0.024)	(0.024)
Low technology			-0.115***	-0.113***
			(0.019)	(0.019)
Average technology			-0.086***	-0.084***
			(0.020)	(0.021)
Number of observations	5,400	5,400	5,381	5,381

Note: *The dependent variable is the overall innovation activity, with standard error in parentheses. The model is also controlled for the dummy variable year *** $p < 0.01$, ** $p < 0.05$, *$p < 0.1$. Marginal effects are reported. High-tech enterprises are the primary category.*

Table 2 shows that formalized firms will have a higher positive impact on the ability to innovate in introducing new products in the market than informal enterprises (4, 3%). However, this difference is relatively low, and the variables of enterprise characteristics and industry characteristics do not clearly impact new product introduction activities, regardless of whether the business operates formally or informally. This is because introducing new products to the market is essentially the end result of the enterprise's innovation process, not activities that create improvement or innovation deep within the organization. This can be the same in different businesses and industries.

Table 2. Effect of Formalization on The Introduction of New Products in The Market

Explanatory variable	**Innovation of new product**	**Innovation of new product**	**Innovation of new product**	**Innovation of new product**
	(first)	(2)	(3)	(4)
Formalization Status	0.043***	0.043***	0.044***	0.045***
	(0.008)	(0.008)	(0.008)	(0.009)
Enterprise size			0.000	0.000
			(0.000)	(0.000)
Enterprise age			0.001***	0.001***
			(0.000)	(0.000)
Export activities			0.007	0.007
			(0.014)	(0.014)
Unofficial fee payment			-0.019***	-0.019***
			(0.007)	(0.007)
The business owner is a member of the Communist Party			0.007	0.007
			(0.011)	(0.011)
Enterprises are members of business associations			0.007	0.007
			(0.012)	(0.012)
Low technology			-0.023**	-0.022**

			(0.010)	(0.010)
Average technology			-0.012	-0.012
			(0.010)	(0.010)
Number of observations	5,400	5,400	5,381	5,381

Note: *The dependent variable is the innovation activity that introduces new products in the market, with standard error numbers in parentheses; the model is also controlled for dummy variables. year *** p < 0.01, ** p < 0.05, * p < 0.1. Marginal effects are reported. High-tech enterprises are the basic category.*

In another dimension, considering the content of product innovation activities, that is, to innovate existing products, formalized firms will have a more positive impact on existing product innovation than informal enterprises and higher at 11%. According to research by Le Anh Hung (2021) and Nham Phong Tuan (2016), businesses have good product innovation results when they can accumulate and exploit the sources of knowledge capital well. Enterprises need a strict organizational structure and operating procedures to ensure the continuity and abundance of knowledge assets (Le Anh Hung, 2021; Nham Phong Tuan, 2016). This is only possible when businesses operate in a formalized form. The enterprises in the industry with slow and outdated technology will harm the innovation of existing products, and businesses participating in business associations will positively impact this activity.

Table 3. Effect of Formalization on Existing Product Innovation

Explanatory variable	**Existing Product Innovation**	**Existing Product Innovation**	**Existing Product Innovation**	**Existing Product Innovation**
	(first)	(2)	(3)	(4)
Formalization Status	0.110***	0.112***	0.072***	0.073***
	(0.012)	(0.013)	(0.013)	(0.013)
Enterprise size			0.001***	0.001***
			(0.000)	(0.000)
Enterprise age			-0.002***	-0.002***
			(0.001)	(0.001)
Export activities			0.102***	0.098***
			(0.024)	(0.025)
Unofficial fee payment			0.013	0.015
			(0.012)	(0.012)
The business owner is a member of the Communist Party			0.015	0.015
			(0.019)	(0.019)
Enterprises are members of business associations			0.075***	0.071***
			(0.021)	(0.021)
Low technology			-0.116***	-0.114***
			(0.016)	(0.017)
Average technology			-0.084***	-0.081***
			(0.018)	(0.018)
Number of observations	5,400	5,400	5,381	5,381

*Note: Dependent variable is existing product innovation activity, standard error number in parentheses; the model is also controlled for dummy year ***p < 0.01, **p < 0.05, *p < 0.1. Marginal effects are reported. High-tech enterprises are the primary category.*

Similar to existing product innovation, the degree of formalization also has a more positive effect on technological and process innovation performance than firms operating in the informal sector (5.5%). In this respect, firms in the industry with low and medium technology still harm technology and process innovation; however, unlike the above aspects, firms with high technology medium will be more strongly hindered than enterprises with low technology. This is understandable because, with low-tech enterprises, the pressure to innovate will be more substantial. In addition, many studies emphasize that process innovation strongly impacts firms' innovation (Barbieri, Buonomo, Farnese, & Benevene, 2021; Beltramino, García- Perez-de-Lema, & Valdez-Juárez, 2020; Le Anh Hung, 2021; Nham Phong Tuan, 2016). Moreover, these studies also suggest that the production of enterprises should be organized according to strict processes and flexible and organized designs. This will be better if enterprises operate formally.

Table 4. Effects of Formalization on Technological and Process Innovation

Explanatory variable	Technological and process innovation	Technological and process innovation	Technological and process innovation	Technological and process innovation
	(1)	(2)	(3)	(4)
Formalization Status	0.055***	0.055***	0.036***	0.036***
	(0.009)	(0.009)	(0.009)	(0.009)
Enterprise size			0.001***	0.001***
			(0.000)	(0.000)
Enterprise age			-0.001*	-0.001*
			(0.000)	(0.000)
Export activities			0.027*	0.028*
			(0.015)	(0.015)
Unofficial fee payment			0.013*	0.012*
			(0.007)	(0.007)
The business owner is a member of the Communist Party			-0.002	-0.0000
			(0.012)	(0.013)
Enterprises are members of business associations			0.037***	0.036***
			(0.013)	(0.013)
Low technology			-0.007	-0.007
			(0.011)	(0.011)
Average technology			-0.024**	-0.024*
			(0.012)	(0.012)
Number of observations	5,400	5,400	5,381	5,381

*Note: Dependent variable is technological and process innovation activity, with standard error in parentheses; the model is also controlled for dummy variable ***p < 0.01, **p < 0.05, *p < 0.1. Marginal effects are reported. High-tech enterprises are the essential category.*

4. CONCLUSION

In Vietnam, many documents of state management agencies, start-up support organizations, Departments, Boards, and branches from central to local have emphasized the role and benefits of enterprises' transformation from informal to formal. Formalized businesses will gain many benefits, such as expanding the scale of operations, increasing the number of employees, increasing the ability to raise capital, and protecting the brand name on a broader scale. In recent years, several domestic studies have addressed the impact of formalization on access to credit, on access to credit over time, and the effect on the firm performance (Thao & Phuong, 2022). In addition, several studies mention the factors affecting innovation and innovation results and consider innovation results as part of business performance. These factors are usually knowledge capital and innovation management and are often associated with large-scale enterprises with long operating times. The data is based on the survey of firm representatives and does not discriminate between enterprises in the public or private sector (Le Anh Hung, 2021). Therefore, this study examines the impact of the formalization of SMEs on innovation performance and considers factors such as size and scale, time, the firm's characteristics, and the industry/field of operation. The results confirm that SMEs in the formal sector have a higher ability to innovate than informal enterprises. Furthermore, the research result is consistent even when the model controls for important firm characteristics such as size, enterprise age, technological level, and social capital. This result will provide a practical basis for policymaking and solutions to enhance the transformation of enterprises.

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Exploration of The Factors Influencing Customer Perspectives And Intention Regarding Digital Bancassurance

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Abstract

A considerable trend towards digitization in the banking and insurance industries have given rise to a new concept called "digital Bancassurance," in which insurance products are made available through banking systems. For financial institutions looking to optimize their service offerings and boost customer satisfaction in this changing landscape, it is essential to understand the elements that influence customer perspective and intentions towards digital Bancassurance. This study intends to look into and pinpoint the variables influencing customer perspective and intentions towards digital Bancassurance. It aims to identify the fundamental forces influencing consumer perceptions regarding unified banking and insurance services in the digital environment. Rare study has been done to understand the precise elements that influence consumers' decisions to adopt digital Bancassurance or not. By examining many facets that influence consumer perceptions and behavioral intentions in the context of digital Bancassurance, this study seeks to close this gap. In-depth interviews and focus groups will be used to collect qualitative data in order to collect various client opinions. Thematic analysis has been performed as a tool to evaluate the interview transcripts. The delivery and consumption of financial services have changed as a result of the development of digital technology. Digital platforms that combine banking and insurance services have the ability to change client preferences and experiences.

Keywords: Digital Bancassurance, Customer Perspective, Unified Banking and Insurance, Customer Intention.

1. INTRODUCTION

In order to cater to the demands of the customers, the financial services industry needs a special approach to the creation of the bank's portfolio of goods and services (Marzai, 2018). The digital platform offers cutting-edge service solutions to enhance client acquisition and retention. Increased brand recognition, as well as a more effective method of analyzing and understanding client demands, may be advantageous to insurers (Bhardwaj, 2021). The gathering of customer data and the creation of tailored goods may both benefit from digitization. By bringing down operating expenses, it enables insurers to offer insurance at lower prices and in greater quantities. These efficiencies have the potential to raise total profitability when used with traditional product lines (Allen, 2019). Bancassurance was introduced as an additional channel of distribution for marketing insurance products to banks' sizable customer base. It was advertised as a better alternative to traditional distribution channels, but because no technological innovations or advancements in that field were made, Bancassurance itself became a traditional channel of distribution for selling insurance products using antiquated techniques like branch visiting and personal selling (Bhardwaj, 2021). Customers have been urged to adopt the digital age by technological advancements, which has an influence on consumer behavior, processing techniques, information management, and other factors. The economics and business environment of organizations have been reorganized as a result of the shift to the digital era, which has also altered how people work (Apdillah et al., 2022). The effects of digitization are thus viewed as the fourth industrialization wave, which will fundamentally alter business. Therefore, a company's capacity to tackle the new obstacles brought on by digitalization will determine how long it can remain in operation (Kramaric, 2020). Bancassurance is a component of banks' efforts to diversify their income streams and grow. Banks may market insurance by utilizing their current clientele. Insurance is sold by banks through their retail networks, or distribution channels (Knight, 2005). Digital Bancassurance, which has emerged as a result of the fusion of banking and insurance services through digital platforms, represents a substantial change in the way financial products are delivered and used. It is crucial for financial institutions and the industry as a whole to comprehend the variables that affect client perceptions and intents in this changing environment. The cutting-edge effects of digitalization on the financial services sector, with a particular emphasis on the integration of banking and insurance services, serve as the basis for this study. For service offerings to be improved, innovation to be stimulated, and the financial services sector to finally be shaped for the better, it is essential to comprehend customer perspective and intention about digital Bancassurance. Although the financial environment might be significantly altered by digital Bancassurance, there is a glaring research deficit regarding consumer attitudes and intentions towards this new integrated financial service. The research that is already available frequently concentrates on conventional Bancassurance models or generic digital banking, rarely address the special issues and considerations related to digital Bancassurance. Financial institutions will benefit from this research's insightful information, which will enable them to create and improve their digital Bancassurance services using data-driven decisions. In order to meet client expectations, this entails enhancing user interfaces, service features, and security protocols. They may efficiently focus their marketing initiatives and match product attributes to client needs, which will boost adoption rates and market penetration. By addressing consumer concerns about security and trust through the research's conclusions, dangers related to the digital shift may be reduced. By developing new products and services that are specifically suited to the changing demands of their clientele, financial institutions may achieve a competitive edge. The development of the digital financial services industry may be fueled by the wise use of the knowledge gained from this study. The scope of this research is by expanding knowledge of consumer behavior and decision-making in the realm of digital financial services, this research also advances academic research. It may open the door for more research into related areas and an expansion of the theoretical bases for digital Bancassurance. Financial institutions may use the research's practical advice and insights to improve their digital Bancassurance initiatives. Financial institutions may modify their services to match client expectations and market trends by adopting the research findings, which will eventually increase their competitiveness and market share.

2. RESEARCH QUESTION

Q1. What are the most significant factors influencing consumer perceptions of digital Bancassurance, taking into account elements like trust, perceived value, usability, and security concerns?

Q2. How do demographics, prior banking and insurance experiences, and alleviate with digital technology affect client intentions about the adoption of digital Bancassurance?

Q3. What strategies can financial institutions use to optimize digital Bancassurance services based on customer perspective and intention?

3. LITERATURE REVIEW

The introduction of bancassurance and digital changes to the banking industry happened virtually simultaneously. This posed a special difficulty. In the pursuit of digital banking self-sufficiency, banks gradually lost face-to-face interaction with their clientele (Ganapathy, 2021). The processing of claims may be done quickly and securely using block chain technology. Platforms for Bancassurance with block chain support make it simpler to share policy information and digital documents in real time. Commissions paid out using smart contracts expedite the client on boarding process (Ganapathy, 2021). Pantano and Timmermans (2014) claim that adapting selling practices and business procedures is necessary for the successful deployment of smart technology in retail. The authors emphasize that, from an organizational perspective, smart technologies demand an effort for identifying, choosing, and presenting the best technology while upgrading the approach to develop, collect, manage, and transmit information from consumers to businesses and vice versa. The introduction of smart technology has also made it easier for retailers to understand customers' expectations and behavioral intentions, including their perceived value and effort expectations (Cronin et al., 2000; Teo & Lim, 2001). The integration of hybridization banking and bancassurance has grown significantly in the past several years.

In a hybrid banking approach, conventional physical banks provide digital banking services as well. Customers can access financial services with greater flexibility and ease thanks to this strategy (Suresh, 2022). Conversely, bancassurance is a business strategy in which banks provide their clients with insurance products in addition to standard banking offerings. Physical banking is difficult to totally eradicate given the variation in population age, education, access to technology, and digital practicality in a country as diverse as India (Suresh, 2022). According to ZeeBiz (2021), a hybrid strategy combines financial services with digital solutions to meet the demands of the modern client and the social and economic environment. Financial institutions use a hybrid banking approach that combines online and traditional branch banking. Furthermore, banks are forced to come up with innovative ways to put a hybrid approach into practice if they want to survive the intense market rivalry and take advantage of the new opportunities presented by digital and mobile banking.

The nonprofit National Community Reinvestment Coalition (NCRC) estimated that between 2017 and 2021, 9% of all branch offices would close, accounting for a loss of about 7,500 branches, according to Bennett's (2023) analysis. A third of the closures occurred in low- to moderate-income or historically disenfranchised neighborhoods.

Digital marketing tactics, better customer support, and automated selling and underwriting will all contribute to the expansion of Bancassurance (Allen, 2019). The banks that create efficient and effective communication processes will be the ones that endure. These plans and procedures will make use of chat bots and other technology, but they will also embrace capabilities that let consumers communicate with staff members without physically visiting the location (Shevlin, 2019). The arrival of technologically advanced banks has compelled South Africa's big banks to alter the way they provide their services. According to Parviainen et al. (2017), "digital transformation" refers to a shift in an organization's operational environment or in the roles and offers that result from the use of digital technology. The adoption of various digital technologies in company operations will thereafter be encouraged via digital transformation. The firm then reaps a number of advantages as a result. Digital technology facilitates the creation of completely new business models and enhances and/or supplements current goods and services (Legner et al., 2017). In order to benefit from the tools and services provided by digitalization, organizations must invest in creating information technology architecture (Serban, 2017).

Ease of use is given top priority in digital distribution channels when it comes to purchasing insurance products or obtaining insurance protection through a firm's website or an application created by the company for simple transactions.

The development of insurance technology has been fueled by the insurance sector's digital revolution. According to Uyun et al. (2020), Insurtech is a type of digital technology or platform that offers markets, online claims features, digital agents, insurance aggregators, and block chain and Internet of Things (IoT) integration.

By digitizing, a new distribution channel will be formed, increasing Bancassurance's sales area and allowing clients to obtain these products much more quickly and with more in-depth insurance terms (Marzai, 2018). Banks continuously modify their products in response to changing client demands and technical advancements. The most crucial step in enabling banks to adapt to digitalization is to engage in financial education of consumers, opening up new revenue opportunities for banks and insurance providers (Marzai, 2018). The next option is Bancassurance that is digitally implanted. However, the user interface's reduction to PCs, laptops, and smart phones makes selling insurance a difficult task. Users' short attention spans necessitate creative ways to draw them in. Furthermore, it calls into question the viability of the Bancassurance business model. The model has to be flipped on its head with some creative thinking and more purposeful focus. It might not last very long in its current state (Ganapathy, 2021).

Digitization will result in life insurance cost savings of 15% to 20%. It may result in improved convenience, speed, and safety when providing services. For e-commerce businesses, specialized insurance packages are now offered to cover risks including data theft, online fraud, and website hacking (Parviainen et al., 2017). To market insurance, banks can use digital consumer interaction tactics and support higher levels of technical competence. Direct marketing, cross-selling, and up selling are strategies to boost Bancassurance sales. As an enabler, a streamlined underwriting procedure is used. The development of Bancassurance and digitization are strongly intertwined. In order to provide clients with timely offerings, data must be used to create analytics solutions. To prioritize and modify efforts, continuous input from processes like analytics, marketing design, and management should be employed (Ganapathy, 2021).

For insurers, utilizing the bancassurance distribution channel and working to develop a digital product sales system may present opportunities. Rapid developments in information and technology may also pose a risk to the business (Safitri et al., 2023). It is simpler for potential clients to evaluate the costs of insurance products provided by different insurance providers. Therefore, in order for insurance businesses to stay competitive in the market, they must provide insurance products at reasonable pricing (Safitri et al., 2023).

4. METHODOLOGY

The qualitative methodology, which incorporates semi-structured interviews, thematic analysis, a triangulation approach, and is based on an interpretivist research philosophy, guarantees a thorough investigation of customer experiences and intents in the broader context of digital Bancassurance.

The research methodology is predominantly interpretive. Understanding and interpreting the meanings that people attribute to their experiences, behaviors, and interactions within a particular context is a key component of interpretivism. It recognizes that reality is a construct influenced by social and cultural factors. Interpretivism fits in well with the research's purpose of understanding consumer perceptions and intents about digital Bancassurance since it focuses on customer viewpoints and goals.

5. INTERVIEWS

A key method in qualitative research, semi-structured interviews enable in-depth examination of participants' viewpoints and experiences. Semi-structured interviews offer a flexible yet guided method for gathering detailed information on client perceptions and intentions towards digital Bancassurance in the context of this study.

6. INTERVIEW CHARACTERISTICS

Following are the interview characteristics.

Table 1. Interview Characteristics

Respondent Code	Gender	Method
JQ_1	Male	Face to Face
AHS_2	Male	Face to Face
MF_3	Male	Face to Face
GR_4	Female	Face to Face
YP_5	Male	Face to Face
SJH_6	Male	Face to Face
NU_7	Female	Face to Face
JN_8	Female	Face to Face
BG_9	Male	Face to Face
WQ_10	Male	Face to Face

7. THEMATIC ANALYSIS

Thematic analysis is a method that is frequently used to find, examine, and present patterns (themes) in data. In order to create themes and subthemes that provide light on the study topics, the data must be carefully coded.

1. ***Data Familiarization:*** By reading the interview data several times, researchers become comfortable with the content and context.
2. ***Initial Coding:*** Initial codes are assigned to data segments relating to the study goals. This method aids in finding pertinent patterns and ideas in the data.
3. ***Theme Development:*** The development of themes involves grouping codes into probable themes and looking at connections between them. To appropriately portray the information, themes are clarified, identified, and given names.
4. ***Review and Refinement:*** Themes and subthemes are examined and improved to make sure they appropriately reflect the data and satisfy the study's goals. The analytical rigor is improved by this iterative method.

5. ***Reporting:*** Participants' statements are frequently used to exemplify each of the final themes and subthemes. This serves as the foundation for the research's qualitative results.

8. POPULATION AND SAMPLING

The population for this research is Bancassurance officials in life insurance sector of Pakistan. 10 interviews have been conducted for this research. Purposive sampling, sometimes referred to as judgmental or selective sampling, is choosing participants based on predetermined standards that are consistent with the goals of the study. This strategy is appropriate for this study because it enables the selection of individuals with pertinent knowledge and ideas on Bancassurance.

9. TRIANGULATION APPROACH

To increase the validity and dependability of the study findings, triangulation entails using different techniques, data sources, or researchers. The use of methodological triangulation in this study has been made for The research issues may be explored more thoroughly and a wider range of viewpoints can be captured by combining qualitative (interviews, thematic analysis) methodologies.

10. RESULTS

Following themes obtained through interview transcripts.

11. THEME 1: CUSTOMER PERSPECTIVE AND INTENTION TOWARDS INSURER

11.1 Sub Theme 1.1: Reliability and credibility of Insurer

11.1.1 Field Note

*"…Customers voice doubts over the legitimacy of insurance services provided through digital platforms, highlighting the significance of reliable and credible collaborations between banks and insurers…"*NU_7.

11.2 Sub Theme 1.2: User experience and Usability

11.2.1 Field Note

*"…Customer emphasize the value of user-friendly designs and intuitive interfaces in digital Bancassurance platforms, showing a preference for programmes that make their entire experience better…"*WQ_10.

12. THEME 2: DIGITAL LITERACY AND EXPERIENCE OF CUSTOMERS

12.1 Sub Theme 2.1: Digital literacy and convenience

12.1.1 Field Note

*"…Customers with greater levels of digital literacy are more convenient in browsing digital Bancassurance systems, demonstrating how technological familiarity impacts their propensity to adopt…"*YP_5.

12.2 Sub Theme 2.2: Customer Service Experience

12.2.1 Field Note

*"…Emphasizing the influence of previous contacts on present intentions, digital Bancassurance is more likely to be adopted by those who have previously had favorable experiences with both banking and insurance services…"*MF_3.

13. THEME 3: OPTIMIZED FINANCIAL STRATEGIES

13.1 Sub Theme 3.1: Instant Customer Engagement

13.1.1 Field Note

*"…Customers like advice and solutions that are specific to them and are based on their financial habits, which suggest that instantaneous personalized interactions increase interest in digital Bancassurance and engagement…"*AHS_2.

14.2 Sub Theme 3.2: Measures taken on Enhancing Data Security

14.2.1 Field Note

*"…Users emphasize the need for strict data security regulations and value organizations that prioritize and publicly share their efforts to protect client data, which fosters confidence in the digital Bancassurance platform…"*JN_8.

14. THEORETICAL FRAMEWORK

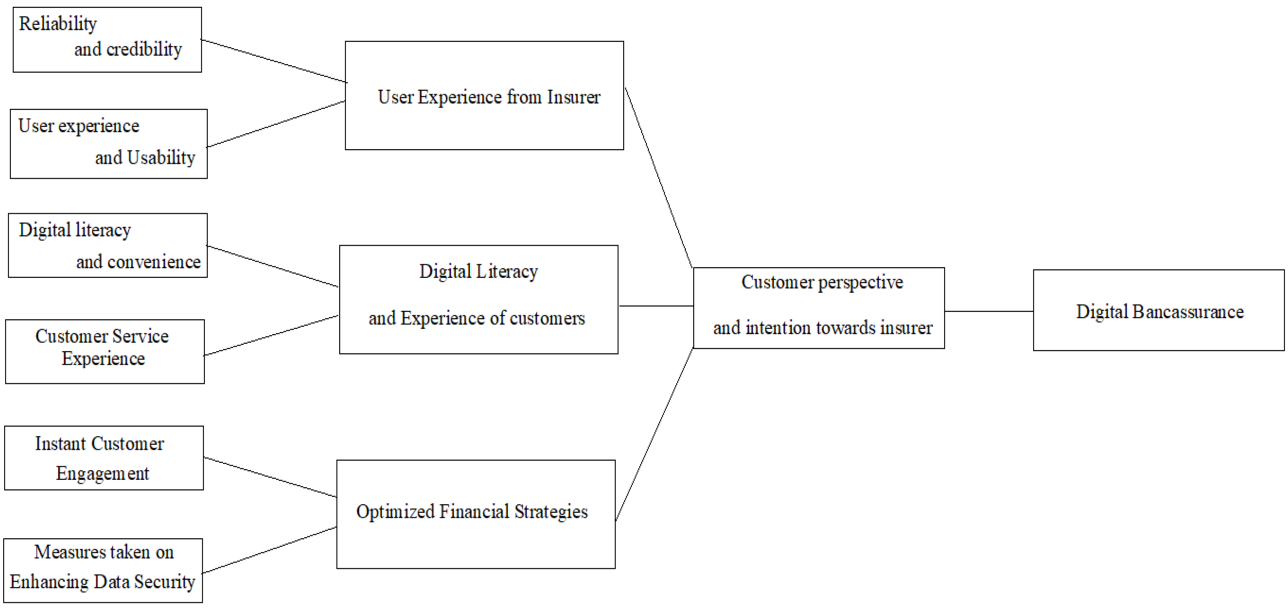

Figure1: Digital Bancassurance Optimization Model (DBOM)

15. DISCUSSION

The goal of the study using the digital Bancassurance optimization model (DBOM) is to examine the variables affecting customer perceptions and intentions in the area of digital Bancassurance. The first study question focused on what characteristics, including trust, perceived value, usability, and security concerns, were most important in shaping how consumers view digital Bancassurance. The theme analysis showed that credibility and trust were important elements influencing customer attitudes. Participants raised doubts regarding the legitimacy of insurance services made available through digital channels, highlighting the significance of reliable collaborations between banks and insurers. Participants were impressed with how simple it was to manage financial demands in a centralized manner, which highlighted perceived value and convenience. The importance of usability and user experience was also highlighted by participants, who emphasized the demand for user-friendly designs and intuitive user interfaces. It was essential to address security issues, and participants emphasized the necessity for strong security measures to increase trust in digital Bancassurance systems.

The research identified many subthemes in answer to the second research question, which looked at how customer intentions about the adoption of digital Bancassurance are influenced by demographics, past banking and insurance experiences, and familiarity with digital technology. Younger participants had increased receptivity to digital Bancassurance due to their familiarity with technology, in contrast to older participants who voiced skepticism due to their inadequate digital literacy. Demographic effects played a major role. Additionally, it was discovered that earlier financial services experiences impacted adoption intentions. Digital Bancassurance adoption was more likely to occur among those who had excellent experiences with both banking and insurance services. Participants expressed confidence exploring digital Bancassurance platforms, demonstrating how acquaintance with technology positively affected their adoption intentions. Digital literacy and comfort appeared as significant characteristics.

The third study inquiry looked at methods that financial institutions might use to enhance digital Bancassurance services depending on the viewpoint and goal of customers. Three major subthemes were highlighted by the research findings. Participants praised customized advice and products based on their financial behaviors, establishing personalized client involvement as a critical tactic. The necessity for financial institutions to inform clients about the value of these integrated services was indicated, and education and awareness efforts were thought necessary to make clear the advantages and characteristics of digital Bancassurance. Users emphasized stronger data security safeguards, underlining the need for strict rules to protect client data and fostering confidence in the digital Bancassurance platform. entire, the results give financial institutions useful information about how to improve the entire client experience and optimize their digital Bancassurance services.

16. CONCLUSION

The "Digital Bancassurance Optimization Model" study has illuminated key elements influencing customer attitudes and intentions in the field of digital Bancassurance. Reliability, trustworthiness, usability, and convenience were shown to be important factors in determining how consumers perceive digital Bancassurance. Participants stressed the importance of safe and user-friendly experiences while expressing the need for a smooth and reliable integration of banking and insurance services on digital platforms. The learned lessons highlight the necessity for financial institutions to prioritize openness, an improved user experience, and strong security measures in order to win over customers and promote the wider use of digital Bancassurance.

The study examined how clients' aspirations for adopting digital Bancassurance were impacted by their demographics, past financial experiences, and digital competence. It was clear that demographic considerations had a big influence, with younger, more tech-savvy people showing more willingness to accept digital Bancassurance. Notably, participants' readiness to accept integrated digital services was impacted by earlier favorable experiences with financial services. Additionally, the need of targeted educational programmes to close the digital divide and enable a more inclusive adoption of digital Bancassurance emerged as a significant driver.

This research also gave financial institutions that wanted to optimize their digital Bancassurance services useful strategic insights. It was emphasized how important it is to personalize client engagement, run educational efforts, and implement stronger data security procedures. The use of individualized suggestions and educating clients on the advantages of digital Bancassurance were recommended as tactics to increase engagement and boost adoption rates. Furthermore, it is impossible to exaggerate how important data security is in fostering consumer confidence and trust. In the quickly changing digital financial world, these methods are essential for assisting financial institutions in effectively optimizing their digital Bancassurance services and maintaining a customer-centric approach.

17. POLICY IMPLICATIONS

A top priority for policymakers should be the creation and implementation of strict data security laws tailored to the digital Bancassurance industry. To guarantee the safety of consumer data, secure transactions, and compliance with global data protection regulations, strict rules should be in place. These rules should be made mandatory for financial institutions, encouraging customer confidence in digital Bancassurance systems. Advocates for public policy should support extensive consumer education and awareness initiatives that emphasize digital Bancassurance. The development of instructional materials, workshops, and online resources can be facilitated by partnerships between regulatory agencies, financial institutions, and consumer advocate organizations. With the help of these activities, customers should be better equipped to make decisions by learning about the advantages, hazards, and responsible use of digital Bancassurance.

Establish regulatory frameworks for ongoing evaluation and supervision of digital Bancassurance platforms to guarantee adherence to predetermined requirements. Periodic reviews and audits may assist pinpoint problem areas, encourage ethical behavior, and uphold a high standard of customer service and security. By encouraging financial institutions to offer digital Bancassurance services in underserved and distant locations, policymakers may advance financial inclusion. Reduced licensing costs and regulatory flexibility are two examples of incentives that might encourage institutions to reach out to under banked and unbanked communities, hence extending financial access and coverage.

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