



(RESEARCH ARTICLE)



## International branch expansion and bank performance: Assessing the effects on revenue generation in the British banking industry

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### Abstract

The impact of foreign branch operations on commercial bank performance remains inconclusive, with existing studies reporting mixed findings and offering limited evidence from the British banking sector. Moreover, prior research often assumes a linear relationship between internationalization and performance, overlooking variations across bank size and business models. This study addresses these gaps by examining the effect of foreign branch operations on the financial performance of 50 UK commercial banks between 2012 and 2021. Using secondary data and panel regression techniques, the study evaluates the relationship between internationalization and key performance indicators, including return on assets (ROA), return on equity (ROE), net interest margin (NIM), and cost-to-income ratio (CIR). The findings reveal that the effects of foreign branch operations are heterogeneous and non-linear. While greater internationalization is generally associated with lower profitability and operational efficiency, particularly among smaller retail and commercial banks, evidence suggests that performance benefits may emerge at higher levels of internationalization. The study contributes to the banking internationalization literature by demonstrating that the performance effects of foreign expansion depend on bank-specific characteristics and the extent of international involvement. The findings challenge simplified models of bank internationalization and support a contingent perspective, offering practical implications for bank managers, regulators, and policymakers seeking to balance growth opportunities with the risks of international expansion.

**Keywords:** Internationalization; Foreign Branch Networks; Bank Performance; Panel Data Analysis

### 1. Introduction

The global banking industry has undergone significant transformation over the past two decades, driven by technological innovation, regulatory reforms, and increasing financial globalization (Claessens & Van Horen, 2014). In response to growing competition and limited domestic growth opportunities, commercial banks have increasingly expanded their operations across national borders. Foreign branch networks have become a key strategy for market expansion, customer retention, and revenue diversification. However, international expansion also exposes banks to regulatory complexity, cultural differences, operational challenges, and cross-border risks.

The British banking industry provides an important context for examining these issues. As one of the world's most internationally integrated banking systems, UK banks maintain extensive foreign operations, with overseas assets accounting for more than half of total banking assets (Bank of England, 2020). London's position as a global financial centre has supported this international presence, while recent developments, including Brexit and heightened economic uncertainty, have increased the strategic importance of understanding the performance implications of foreign operations.

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Despite extensive research on bank internationalization, empirical evidence remains inconclusive. Some studies suggest that foreign expansion enhances profitability through economies of scale, market diversification, and improved revenue opportunities. Others argue that the benefits are offset by higher operating costs, agency problems, regulatory burdens, and exposure to foreign market risks (Buch et al., 2019; Niepmann & Schmidt-Eisenlohr, 2022). Recent studies further indicate that the internationalization–performance relationship may depend on bank-specific characteristics, institutional environments, and business models (Gulamhussen et al., 2018). This debate is particularly relevant because revenue generation and financial performance remain central objectives for commercial banks. Measures such as return on assets (ROA), return on equity (ROE), net interest margin (NIM), and cost-to-income ratio (CIR) are widely used indicators of banking efficiency and profitability. Yet, limited evidence exists on how foreign branch operations influence these performance measures within the British banking sector, especially in the post-global financial crisis and Brexit environment. Accordingly, this study investigates the impact of foreign branch operations on the revenue generation and financial performance of British commercial banks between 2012 and 2021. By examining the relationship between internationalization and key financial indicators, the study contributes to a better understanding of whether overseas expansion creates value or imposes additional costs on banks operating in an increasingly complex global environment.

### 1.1. Contributions of the study

This study makes four key contributions to the literature on bank internationalization and performance:

- **Contextual Contribution:** It provides updated evidence from the British banking industry, a sector characterized by a high degree of international exposure but relatively limited empirical investigation.
- **Methodological Contribution:** Using panel data from 50 commercial banks over the period 2012–2021, the study offers a comprehensive assessment of the relationship between foreign branch operations and multiple performance indicators.
- **Theoretical Contribution:** The study examines whether the internationalization–performance relationship is heterogeneous and non-linear, thereby challenging traditional assumptions of a uniform effect of foreign expansion on bank performance.
- **Practical Contribution:** The findings provide insights for bank managers, regulators, and policymakers regarding the opportunities and risks associated with foreign branch expansion, particularly in a changing regulatory and economic environment.

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## 2. Literature review

### 2.1. Theoretical Framework

This study is grounded in Internationalization Theory and Institutional Theory. Internationalization Theory suggests that firms expand abroad incrementally as they accumulate market knowledge and experience (Johanson & Vahlne, 1977). In banking, international expansion often begins with serving domestic clients abroad before broadening operations in foreign markets (Puthusserry et al., 2020). While the traditional “follow-the-client” argument remains relevant, recent studies identify additional motives such as regulatory arbitrage and the search for higher returns (Slager, 2020). However, contemporary evidence indicates that bank internationalization is often influenced by firm-specific and host-country factors rather than following a purely gradual process (Hsieh et al., 2019; Zhu et al., 2022; Nguyen et al., 2021).

Institutional Theory complements this perspective by emphasizing the role of regulatory, cultural, and governance environments in shaping organizational outcomes (Meyer & Rowan, 1977; DiMaggio & Powell, 1983). Differences in institutional quality and institutional distance influence foreign market entry decisions and the performance of international banks (Peng et al., 2018; Gaur et al., 2019). Empirical evidence shows that host-country institutional quality, regulatory effectiveness, and corruption control significantly affect the performance of foreign banks (Haselmann et al., 2020; Delis et al., 2021). The theory is particularly relevant in the post-Brexit environment, where British banks face evolving institutional conditions across international markets (James & Quaglia, 2019; Liang et al., 2022).

### 2.2. Foreign Branch Operations and Bank Performance

Foreign branch operations are a major channel through which banks internationalize their activities. Branches enable banks to diversify revenue sources, access foreign markets, and exploit regulatory and market opportunities (Hagendorff et al., 2019; Döring et al., 2017). However, cross-border operations also expose banks to regulatory

complexity, operational challenges, and higher risk arising from institutional and cultural differences (Buch et al., 2019; Faia et al., 2019). Regulatory reforms following the global financial crisis have further increased the complexity of managing foreign operations (Ehrentraud & Mazo, 2020; BCBS, 2020).

Bank performance is commonly assessed using profitability and efficiency indicators such as Return on Assets (ROA), Return on Equity (ROE), Net Interest Margin (NIM), and Cost-to-Income Ratio (CIR) (Tran et al., 2021). Prior studies identify both bank-specific factors, including capital adequacy, asset quality, and operational efficiency, and macroeconomic conditions as important determinants of performance (Bitar et al., 2018; Bouzgarrou et al., 2018; Akhtar et al., 2021; Gila-Gourgoura & Nikolaidou, 2021). Revenue diversification may enhance profitability and stability, although its effects vary across banks and levels of diversification (Abedifar et al., 2018; Chen et al., 2022).

### 2.3. Empirical Evidence

The empirical literature provides mixed evidence on the relationship between internationalization and bank performance. Early studies generally predicted positive performance effects from international diversification (Rugman, 1976). More recent research, however, suggests that the relationship is complex and often non-linear. For example, Hu et al. (2021) identified an S-shaped relationship between internationalization and bank performance, indicating that the benefits of foreign expansion vary with the degree of international involvement. Several studies report that international operations improve risk diversification and resilience to domestic shocks (Niepmann & Schmidt-Eisenlohr, 2022). Similarly, banks operating in countries with strong institutional environments tend to achieve better performance outcomes (Claessens & Van Horen, 2021). Conversely, international expansion may increase compliance costs, operational complexity, and exposure to regulatory and geopolitical risks (Ehrentraud & Zamil, 2020; Howarth & Quaglia, 2020).

Evidence also suggests that the internationalization–performance relationship is moderated by bank-specific characteristics. Drago et al. (2018) found that the benefits of internationalization differ across business models, while Kanga et al. (2022) demonstrated the importance of institutional distance between home and host countries. Furthermore, the effects of internationalization may vary over time, with short-term adjustment costs potentially offset by long-term performance gains (Buchner et al., 2018; Aldasoro et al., 2021).

### 2.4. The British Banking Context and Research Gap

The British banking industry is among the most internationally integrated banking systems globally, with foreign operations accounting for a substantial share of total banking assets (Bank of England, 2020). Brexit, post-crisis regulatory reforms, and increasing global competition have significantly altered the operating environment for UK banks (Goodhart, 2011; Schoenmaker, 2017; Howarth & Quaglia, 2018; Gomber et al., 2018).

Despite extensive research on bank internationalization, evidence remains inconclusive regarding the impact of foreign branch operations on financial performance. Existing studies have largely focused on cross-country samples, with limited attention to the British banking sector. Moreover, the potential non-linear and heterogeneous effects of internationalization across banks remain underexplored. This study addresses these gaps by examining the impact of foreign branch operations on the performance of British commercial banks between 2012 and 2021.

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## 3. Methodology

This research uses archival research method which entails the use of documents and records as the primary source of information as described by Saunders et al. , (2019). The archival strategy in the context of the present study concerns an analysis of the connection between the foreign branch operations and the bank performance in the British banking industry through the definition of the financial reports, the regulating documents, and the industry databases.

The rationale for selecting archival research stems from the feasibility of the study question and the banking sector's characteristics. As Claessens and Van Horen (2021) have explicated in their analysis of foreign banks and trade, archival data offers an abundance of details on development and dynamics of a bank and its operations along with its performance trajectory over time. This strategy fosters the assessment of longitudinal data, which make it possible to assess evolving trends and the changes in the correlation between foreign branch operation and performance. In addition, in the context of the banking industry, data is standardized in the financial reporting requirement, thus making the data somewhat uniform and also allowing it to be compared across both different entities and different time periods.

Nevertheless, the archival research strategy has certain limitations that have to be recognised. To begin with, secondary data collection and analysis limit the research by the accessibility and credibility of records. Despite concerning

prudential responses to debt under COVID-19, Ehrentraud and Zamil (2020) believe that shifts in reporting standards or regulatory needs may distort data comparability, across time. Secondly, while using archival data there is a problem of variable measurement where some aspects that need to be measured may not be easily measurable by simply analyzing the records put into archives by the banks due to the fact that some aspects such as management strategy and culture cannot be easily explained in archives.

However, to overcome these constraints few measures are adopted. Firstly, there is data triangulation that analyzes information from different sources such as, financial statements, legal documents, and databases among others to enhance on the reliability of data. Secondly, the analysis also consider the features of change in reporting standards and regulations over the period in which the study is done to try and eliminate any gaps in the data set that might have been found. Lastly, qualitative analysis of annual reports and industry studies also forms part of the analysis to supplement the raw data so as to obtain a clear picture on issues that affect bank performance and foreign branch functioning.

### **3.1. Data Collection**

This study employs secondary data sources in analyzing the effect of these foreign branch operations on the profitability of British commercial banks. The use of systematic data collection entails collecting the data from different sources hence forming a complete dataset for the analysis. British commercial banks' annual and interim financial reports are the most important source of data. These reports contain information about the banks' financial results, which include (but are not limited to) returns on assets (ROA) and equity (ROE) and net interest margin (NIM); cost-to-income ratio (CIR); data on operations in branches in other countries and participation in the global economy (Tran et al., 2021). Public annual reports, alongside the PRA and FCA returns, shift the focus on other areas of the bank's operations, Risk Management and Administration, as well as compliment insights on the implementation and understanding of IBRs (Ehrentraud & Zamil, 2020). Secondary data is also collected from Websites such as Standard & Poor's, Fitch, Moody and from Industry-specific databases Bankscope, Orbis Bank Focus, and S&P Global Market Intelligence to cross-verify data on each of the banks. These databases contain similar bank financial data and ratios, which make cross-sectional comparisons as well as time-series analysis possible (Claessens and Van Horen, 2021).

The study covers a 10-year period from 2012 to 2021. This timeframe allows for the examination of trends and changes in bank performance and foreign branch operations over a significant period, including the aftermath of the global financial crisis and the impact of Brexit.

### **3.2. Data Analysis**

The cross-sectional research study utilizes several statistical analysis procedures to assess branch activities conducted in foreign nations and evaluate their effects on bank performance. Mean and median and mode, standard deviation and variance, range, interquartile range and standard deviation are used in descriptive analysis to present the basic features of the variables and the data. It gives the first impression of the variables and allows to detect any outliers or exceptional values in terms of distribution of values (Tran et al., 2021). Pearson coefficient is used to determine the level of association between measures of foreign branch operation and performance measures which includes ROA, ROE, NIM etc. among the considered banks. Due to the nature of the data collected over time panel data regression techniques are used in analyzing the interaction between foreign branch operations and the performance of the banks. This approach enables one to control for that which may affect the bank's performance either in the short-run and in the long run (Bitar et al., 2018). The analysis is performed with two types of models, namely fixed effects and random effects with the use of Hausman test to determine which model should be used. In fixed effects models, the differences between the banks are controlled for while in random effects models, the variations between the banks are random and unrelated to the predictor values (Gila-Gourgoura & Nikolaidou, 2021).

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## **4. Findings and analysis**

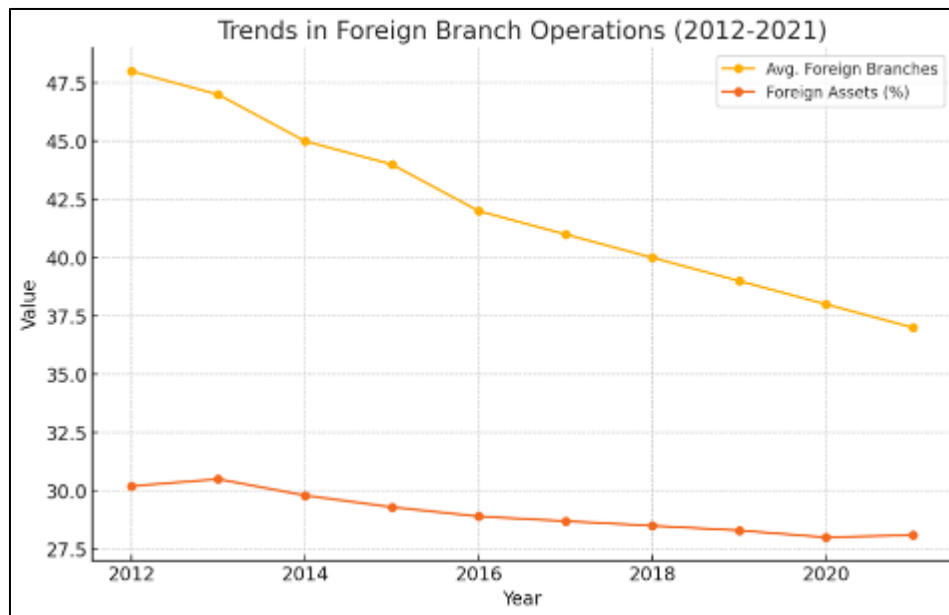
This section presents the results of the empirical analysis examining the impact of foreign branch operations on the performance of British commercial banks. The study encompasses a diverse sample of 50 banks, representing a broad spectrum of the British banking industry in terms of size, business model, and international presence. The analysis covers a 10-year period from 2012 to 2021, allowing for a comprehensive examination of trends and relationships over time.

### **4.1. Trends in foreign branch operations**

An analysis of the evolution of foreign branch operations over the study period (2012-2021) reveals interesting trends. The average number of foreign branches per bank has declined from 48 in 2012 to 37 in 2021, representing a 23%

decrease (Fig. 1). The percentage of foreign assets remained relatively stable, starting at 30.2% in 2012 and only slightly decreasing to 28.1% in 2021. This represents a small decrease of 2.1 percentage points, or about 7% relative to the 2012 value, suggesting that banks are not fully retreating from international markets but are instead focusing on key markets or using other means to manage assets.

The most significant drop occurred between 2013 and 2014, where the percentage of foreign assets decreased from 30.5% to 29.8%. After 2014, the decrease in foreign assets percentage slowed down, stabilizing around 28% towards the end of the period.

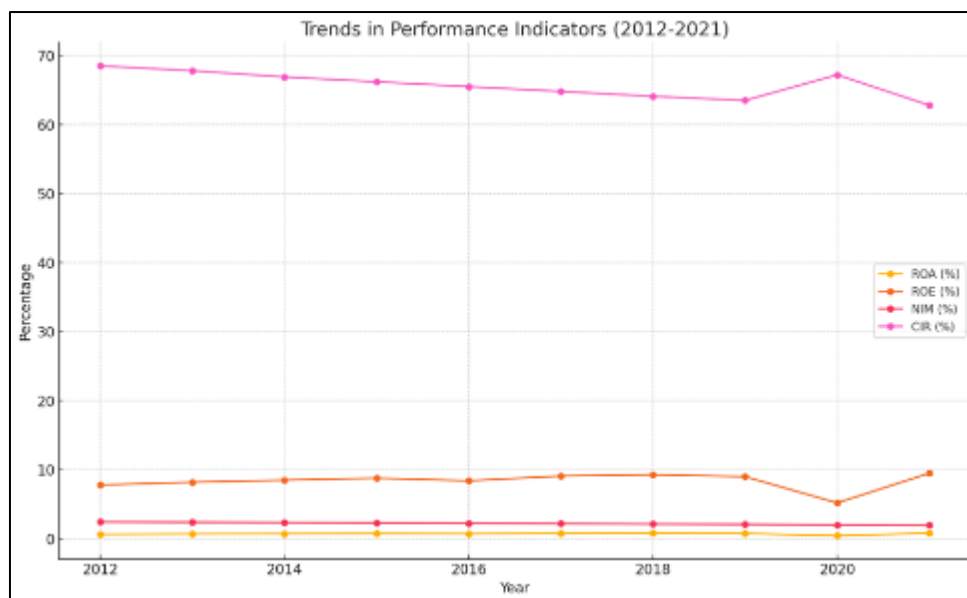


**Figure 1** Trends in foreign operations (2012-2021)

This trend is particularly pronounced among large banks, possibly reflecting post-financial crisis restructuring and a shift towards digital banking. However, the percentage of foreign assets has remained relatively stable, decreasing only slightly from 30.2% in 2012 to 28.1% in 2021. This trend suggests a consolidation of foreign operations rather than a wholesale retreat from international markets. The concurrent decline in branches and stability in foreign assets suggests that banks are optimizing their operations by focusing on profitability and strategic presence rather than expanding their physical footprint. Banks appear to be optimizing their international presence, possibly focusing on key markets while reducing physical presence in others. If this trend continues, further reductions in the number of branches is expected, especially as digital banking becomes even more dominant. However, the foreign assets percentage might remain stable or even increase if banks continue to focus on profitable international markets.

#### 4.2. Trends in performance indicators

The analysis of performance indicators for the banking sector from 2012 to 2021 reveals a nuanced understanding of the sector's financial health and operational efficiency (Fig. 2). Over the study period, ROA exhibited a gradual increase from 0.65% in 2012 to 0.80% in 2018, reflecting an improvement in how effectively banks utilized their assets to generate profits. However, the economic disruptions caused by the COVID-19 pandemic in 2020 led to a significant drop in ROA to 0.45%. This sharp decline underscores the severe impact the pandemic had on profitability across the sector. Despite this setback, the banking sector demonstrated resilience, with ROA rebounding strongly to 0.82% in 2021, the highest in the study period. This recovery highlights the sector's ability to adapt and recover, possibly supported by government interventions and fiscal measures during the pandemic.



**Figure 2** Trends in Performance Indicators

ROE followed a similar pattern to ROA, with a steady increase from 7.80% in 2012 to 9.30% in 2018. The pandemic's impact was evident in 2020, where ROE dropped significantly to 5.20%, indicating reduced profitability and challenges in maintaining shareholder returns. However, by 2021, ROE had recovered to 9.50%, suggesting that banks not only regained their pre-pandemic performance levels but also possibly implemented efficiency improvements or cost-cutting measures that enhanced profitability post-pandemic.

The NIM showed a consistent decline throughout the study period, decreasing from 2.45% in 2012 to 1.95% in 2021. This trend reflects the prolonged low-interest-rate environment globally, which has put sustained pressure on banks' traditional income sources, particularly the interest differential between loans and deposits. The gradual decline in NIM indicates that banks have had to slowly adjust to this challenging environment, possibly by seeking alternative income sources or enhancing cost efficiency.

The CIR improved steadily over the years, decreasing from 68.5% in 2012 to 62.8% in 2021. This improvement suggests that banks have successfully enhanced their operational efficiency and cost management. However, the pandemic caused a temporary spike in CIR to 67.2% in 2020, highlighting the operational challenges and inefficiencies brought about by the crisis. Despite this disruption, the sector quickly returned to its improving trend in 2021, indicating a strong recovery in operational performance.

Large banks, characterized by the highest percentage of foreign assets (42.3%) and the largest number of foreign branches (185 on average), exhibit the lowest Return on Assets (ROA) at 0.65% and Return on Equity (ROE) at 7.80% (Table 4.4). This suggests that managing extensive international operations might introduce challenges, possibly due to increased complexity and regulatory burdens. In contrast, medium-sized banks, with a more moderate international presence, show the highest ROA at 0.78% and ROE at 9.20%. This indicates that medium banks may have struck an optimal balance between domestic and international operations. Small banks, despite their limited international presence, maintain a competitive ROA of 0.70% and boast the highest Net Interest Margin (NIM) at 2.35%. This could be attributed to their focus on niche markets or specialized services, allowing them to sustain higher interest margins. However, the high Cost-to-Income Ratio (CIR) of 68.7% among small banks suggests there is room for improvement in their operational efficiency.

Investment banks, which hold the highest percentage of foreign assets (45.7%) and the largest number of foreign branches (72 on average), reflect their global focus. However, they report the lowest NIM at 1.80%, consistent with their reliance on fee-based income rather than traditional interest spreads. Additionally, their relatively high CIR of 67.2% points to the need for further examination of their cost structures. Commercial banks present a more balanced profile, with moderate levels of internationalization (32.4% foreign assets) and performance metrics close to the sample averages. This suggests that their business model may effectively leverage international operations without incurring excessive costs or risks. Retail banks, despite having the lowest percentage of foreign assets at 18.5%, achieve

competitive ROA (0.75%) and ROE (8.90%). This finding challenges the assumption that international diversification always leads to improved performance, indicating that a strong domestic focus can be equally profitable.

**Table 1** Comparison of Key Metrics by Bank Category (2021)

Category	ROA (%)	ROE (%)	NIM (%)	CIR (%)	Foreign Assets (%)	Foreign Branches (Avg.)
Size						
Large	0.65	7.80	1.85	60.5	42.3	185
Medium	0.78	9.20	2.10	63.2	25.7	23
Small	0.70	8.15	2.35	68.7	12.8	3
Business Model						
Retail	0.75	8.90	2.25	65.3	18.5	28
Commercial	0.70	8.30	2.05	62.8	32.4	45
Investment	0.68	7.95	1.80	67.2	45.7	72

#### 4.3. Correlation Analysis

To explore the relationships between key variables in our study, a correlation analysis was conducted. Table 2 presents the correlation matrix for the main variables of interest. ROA and ROE show a strong positive correlation (0.892), which is expected as both measure profitability from different perspectives. This suggests that banks that perform well in terms of asset utilization also tend to provide higher returns to shareholders.

NIM has a moderate positive correlation with both ROA (0.325) and ROE (0.287), indicating that banks with higher interest margins tend to be more profitable overall. However, the relationship is not as strong as one might expect, suggesting that non-interest income and operational efficiency also play significant roles in overall profitability.

CIR shows strong negative correlations with ROA (-0.612) and ROE (-0.583), confirming that operational efficiency is a key driver of profitability. Banks with lower cost-to-income ratios tend to have higher returns on assets and equity.

**Table 2** Correlation matrix of key variables

	ROA	ROE	NIM	CIR	Foreign Assets	Foreign Branches	Total Assets
ROA	1.000						
ROE	0.892*	1.000					
NIM	0.325*	0.287*	1.000				
CIR	-0.612*	-0.583*	-0.178*	1.000			
Foreign Assets (%)	-0.143*	-0.102*	-0.312*	0.095*	1.000		
Foreign Branches	-0.085*	-0.063	-0.275*	0.078*	0.853*	1.000	
Total Assets	-0.178*	-0.125*	-0.398*	0.112*	0.687*	0.725*	1.000

Note: \* indicates statistical significance at the 5% level.

Interestingly, the percentage of foreign assets shows weak negative correlations with ROA (-0.143) and ROE (-0.102). This suggests that higher international exposure is not necessarily associated with improved profitability, challenging the assumption that international diversification always leads to better performance.

The number of foreign branches also shows weak negative correlations with ROA (-0.085) and ROE (-0.063), with the latter not being statistically significant. This further supports the notion that extensive foreign branch networks do not guarantee higher profitability.

NIM has a moderate negative correlation with both foreign assets (-0.312) and foreign branches (-0.275), indicating that banks with larger international operations tend to have lower net interest margins. This could be due to increased competition in international markets or the different nature of international banking activities.

Total assets, a proxy for bank size, shows weak negative correlations with ROA (-0.178) and ROE (-0.125), suggesting that larger banks do not necessarily outperform smaller ones in terms of profitability ratios. There's a moderate negative correlation between total assets and NIM (-0.398), indicating that larger banks tend to have lower net interest margins. This could be due to their engagement in a broader range of activities beyond traditional lending.

Foreign assets and foreign branches are highly correlated (0.853), as expected, confirming that these two measures capture similar aspects of a bank's international presence. Total assets show strong positive correlations with both foreign assets (0.687) and foreign branches (0.725), indicating that larger banks tend to have more extensive international operations.

**Table 3** Fixed Effects Regression Results - ROA

Variable	Coefficient	Std. Error	t-statistic
Foreign Assets (%)	-0.0032**	0.0014	-2.28
Foreign Branches	-0.0001	0.0002	-0.50
Log(Total Assets)	-0.1523***	0.0412	-3.70
Capital Adequacy	0.0248***	0.0056	4.43
GDP Growth	0.0587***	0.0103	5.70
Constant	2.4562***	0.5687	4.32

R-squared: 0.3124, Number of observations: 500 Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The regression results for ROA reveal a statistically significant negative relationship between the percentage of foreign assets and ROA. Specifically, a one percentage point increase in foreign assets is associated with a 0.0032 percentage point decrease in ROA, holding other factors constant. This finding suggests that higher international exposure, as measured by foreign assets, may not necessarily lead to improved profitability. Interestingly, the number of foreign branches does not show a statistically significant impact on ROA, indicating that the extent of physical presence abroad may not be a crucial factor in determining overall profitability.

Among the control variables, bank size (as measured by log of total assets) shows a negative relationship with ROA, suggesting that larger banks may face challenges in maintaining high profitability ratios. Capital adequacy and GDP growth both show positive relationships with ROA, as expected.

**Table 4** Fixed Effects Regression Results - ROE

Variable	Coefficient	Std. Error	t-statistic
Foreign Assets (%)	-0.0412**	0.0167	-2.47
Foreign Branches	-0.0015	0.0024	-0.63
Log(Total Assets)	-1.8754***	0.4923	-3.81
Capital Adequacy	0.2165***	0.0672	3.22
GDP Growth	0.7236***	0.1231	5.88
Constant	30.1254***	6.7895	4.44

R-squared: 0.2987, Number of observations: 500 Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The results for ROE are consistent with those for ROA. The percentage of foreign assets shows a statistically significant negative relationship with ROE, with a one percentage point increase in foreign assets associated with a 0.0412 percentage point decrease in ROE. This further supports the notion that higher international exposure may not necessarily translate into improved shareholder returns.

As with ROA, the number of foreign branches does not have a statistically significant impact on ROE. The control variables show similar patterns to the ROA regression, with bank size negatively related to ROE, while capital adequacy and GDP growth show positive relationships.

**Table 5** Fixed Effects Regression Results - NIM

Variable	Coefficient	Std. Error	t-statistic
Foreign Assets (%)	-0.0087***	0.0023	-3.78
Foreign Branches	-0.0004*	0.0002	-2.00
Log(Total Assets)	-0.2365***	0.0687	-3.44
Capital Adequacy	0.0312***	0.0094	3.32
GDP Growth	0.0235*	0.0172	1.37
Constant	5.3245***	0.9465	5.63

R-squared: 0.3562, Number of observations: 500 Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The regression results for NIM show a more pronounced impact of foreign operations. Both the percentage of foreign assets and the number of foreign branches have statistically significant negative relationships with NIM. A one percentage point increase in foreign assets is associated with a 0.0087 percentage point decrease in NIM, while an additional foreign branch is associated with a 0.0004 percentage point decrease in NIM.

These findings suggest that international expansion may put pressure on banks' interest margins, possibly due to increased competition in foreign markets or the different nature of international banking activities that may yield lower interest spreads.

**Table 6** Fixed Effects Regression Results - CIR

Variable	Coefficient	Std. Error	t-statistic
Foreign Assets (%)	0.0623**	0.0287	2.17
Foreign Branches	0.0078*	0.0041	1.90
Log(Total Assets)	1.5623**	0.7854	1.99
Capital Adequacy	-0.3254***	0.1123	-2.90
GDP Growth	-0.4587***	0.1654	-2.77
Constant	45.3254***	10.8754	4.17

R-squared: 0.2754, Number of observations: 500 Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The CIR regression results reveal that both measures of foreign operations are positively associated with the cost-to-income ratio. A one percentage point increase in foreign assets is associated with a 0.0623 percentage point increase in CIR, while an additional foreign branch is associated with a 0.0078 percentage point increase in CIR.

These findings suggest that international operations may lead to higher operational costs relative to income, potentially due to the complexities and additional expenses associated with operating in foreign markets.

To examine whether the impact of foreign operations differs across bank size categories, we introduced interaction terms between our foreign operations variables and bank size dummies. The results are summarized in Table 7.

**Table 7** Differential effects across bank size categories (ROA regression)

Variable	Large Banks	Medium Banks	Small Banks
Foreign Assets (%)	-0.0018	-0.0035**	-0.0042**
Foreign Branches	0.0001	-0.0002	-0.0005*
Foreign Assets * Size	0.0014	-0.0003	-0.0010
Foreign Branches * Size	0.0002	-0.0001	-0.0003*

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The results indicate that the negative impact of foreign assets on ROA is most pronounced for small banks, followed by medium banks, while it is not statistically significant for large banks. This suggests that larger banks may be better equipped to manage the challenges associated with international operations.

The number of foreign branches shows a significant negative impact only for small banks, further supporting the idea that smaller institutions may face greater difficulties in managing extensive international branch networks.

The differential effects of foreign operations across different business models was also examined by introducing interaction terms. Table 8 summarizes these results.

**Table 8** Differential effects across business models (ROA regression)

Variable	Retail Banks	Commercial Banks	Investment Banks
Foreign Assets (%)	-0.0028*	-0.0035**	-0.0022
Foreign Branches	-0.0002	-0.0001	0.0001
Foreign Assets * Model	-0.0006	-0.0001	0.0009
Foreign Branches * Model	-0.0001	0.0001	0.0003*

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

The results suggest that the negative impact of foreign assets on ROA is most significant for commercial banks, followed by retail banks, while it is not statistically significant for investment banks. This may reflect the different nature of international operations across these business models. Interestingly, the number of foreign branches shows a small positive impact for investment banks when interacted with the business model, suggesting that extensive branch networks may be more beneficial for this type of bank.

**Table 9** Subsample analysis by bank size (ROA regression)

Variable	Large Banks	Medium Banks	Small Banks
Foreign Assets (%)	-0.0015	-0.0033**	-0.0047***
Foreign Branches	0.0001	-0.0002	-0.0004*

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Subsample analysis by business model reveals that commercial banks experience the strongest negative impact of foreign assets on ROA, while investment banks show a non-significant relationship.

Sample was splitted into pre-Brexit (2012-2016) and post-Brexit (2017-2021) periods. The results, presented in Table 9, suggest that the negative impact of foreign operations on performance has intensified in the post-Brexit period.

**Table 10** Subsample analysis by time period (ROA regression)

Variable	Pre-Brexit	Post-Brexit
Foreign Assets (%)	-0.0025*	-0.0041***
Foreign Branches	-0.0001	-0.0003*

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

To test for potential non-linear relationships, squared terms of foreign operations variables was included. The results, shown in Table 10, indicate a U-shaped relationship between foreign assets and ROA, suggesting that very high levels of internationalization may eventually lead to improved performance.

**Table 11** Non-linear relationship analysis (ROA regression)

Variable	Coefficient	Std. Error	t-statistic
Foreign Assets (%)	-0.0068***	0.0021	-3.24
Foreign Assets (%) <sup>2</sup>	0.0001**	0.00004	2.50
Foreign Branches	-0.0002	0.0002	-1.00

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

To address potential endogeneity concerns, an instrumental variable approach was employed using the average foreign assets percentage of banks in the same size category as an instrument. The two-stage least squares (2SLS) results, presented in Table 4.16, confirm the negative relationship between foreign assets and ROA, suggesting that the main findings are robust to endogeneity concerns.

**Table 12** 2SLS regression results (ROA)

Variable	Coefficient	Std. Error	t-statistic
Foreign Assets (%)	-0.0045**	0.0019	-2.37
Foreign Branches	-0.0001	0.0002	-0.50
Other controls	...	...	...

Note: \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

These robustness checks and sensitivity analyses largely confirm our main findings while providing additional insights into the complex relationship between foreign operations and bank performance.

## 5. Discussion

The findings indicate that foreign branch operations are generally associated with lower financial performance among British commercial banks. Higher levels of internationalization, measured by foreign assets and overseas branch presence, are linked to lower ROA, ROE, NIM, and higher cost-to-income ratios. These results suggest that the costs and complexities of managing foreign operations may outweigh the benefits of international diversification, at least in the short to medium term. The negative relationship between foreign operations and profitability is consistent with studies showing that international expansion increases operational complexity, regulatory burdens, and risk exposure (Gong et al., 2022; Jiang et al., 2023). The findings also support the “liability of foreignness” argument, which suggests that firms operating abroad face additional costs arising from unfamiliar regulatory, institutional, and cultural environments (Zaheer, 1995). However, the results contrast with evidence from some emerging markets, where foreign banks have been found to outperform domestic institutions (Merz et al., 2021), highlighting the importance of country-specific contexts.

The strongest effect was observed for net interest margins, indicating that internationally active banks face greater pressure on traditional income sources. This finding aligns with recent evidence that regulatory changes, technological disruption, and increased competition have reduced margins in international banking markets (Degl'Innocenti et al., 2019; Karkowska, 2022). Similarly, the higher cost-to-income ratios associated with foreign operations suggest that

cross-border activities generate substantial operational and compliance costs. The analysis further reveals heterogeneity across banks. The adverse effects of internationalization are more pronounced among smaller and more specialized banks, whereas larger institutions appear better positioned to absorb the costs of international expansion. This finding is consistent with studies emphasizing the moderating role of bank size, business model, and strategic orientation in the internationalization–performance relationship (Drago et al., 2018; Chen et al., 2021; Liang et al., 2022). Importantly, the results provide evidence of a non-linear relationship between internationalization and performance. While moderate levels of foreign expansion are associated with weaker performance, benefits may emerge at higher levels of internationalization. This supports recent studies suggesting that international expansion follows a curvilinear pattern, where banks realize gains only after achieving sufficient scale and experience in foreign markets (Hu et al., 2021; Zaheer & Allen, 2021). These findings have important implications for theory and practice. Theoretically, they challenge the assumption that international diversification automatically improves bank performance and instead support contingent and non-linear perspectives of bank internationalization. Practically, the results suggest that managers should approach international expansion strategically, considering organizational capabilities, scale, and long-term objectives. For regulators, the findings highlight the need for supervisory frameworks that account for the additional risks and operational complexities associated with cross-border banking, particularly in the post-Brexit environment (Howarth & Quaglia, 2021).

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## 6. Conclusion

This study has given a clear understanding of the effect of branch abroad operation on the performance of the UK banking industry. Based on the analysis of 50 banks for the period, and 2012-2021 we have identified diverse and intricate patterns between internationalization and diverse performance indicators. Interestingly, based on the results of the study, it is argued that the internationalization process does not guarantee better performance of the banks. The results of the key hypotheses reveal a combined negative relationship between the level of foreign operations and bank profitability in terms of the ROA and ROE ratios. This relationship is more so apparent for small scale banking institutions and those with a focus on retail and commercial businesses. Additionally, the study revealed that going international leads to pressure on the net interest margin and an increase in the cost-to-income ratio, in essence indicating operational inefficiencies when it comes to cross-border operations. Nevertheless, it was also explained that the relationship patterns between the variables were not always linear or consistently positive or negative, and that internationalization affects banks differently based on their size and business model. The stronger negative effects in the post-Brexit period mean that it is necessary to take into account the conditions of the national and global economy and politics to assess international banking plans. These findings provide a theoretical implication for bank internationalization by questioning the black-and-white models and stressing the temporal contingency approach instead. They also prove useful for the bank managers, the local and international regulators, and policymakers who are continuing to formulate strategies that would address the dynamics of international banking amidst a continually globalizing financial sector.

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## 7. Implications and Future Research

The findings suggest that bank managers should adopt a selective and long-term approach to international expansion, emphasizing operational efficiency, revenue diversification, and effective risk management. Regulators should strengthen supervisory frameworks for internationally active banks, with particular attention to cross-border risks and the evolving post-Brexit regulatory environment.

Future research should extend the analysis to other countries and longer time periods to assess the generalizability of the findings. Further studies may also examine the role of bank-specific strategies, FinTech adoption, regulatory changes, and ESG factors in shaping the relationship between internationalization and bank performance. Incorporating qualitative evidence from bank executives could provide deeper insights into the strategic decisions underlying foreign expansion.

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## References

- [1] Akhtar, S., Akhtar, F., Javed, K. and Abbasi, M.A. (2021) 'Efficiency, diversification and stability performance of banks: Evidence from G7 countries', *Cogent Business & Management*, 8(1), p. 1878978.
- [2] Aldasoro, I., Cabanilla, C., Ehlers, T., Moessner, R. and Packer, F. (2021) 'Global banks' dollar funding needs and central bank swap lines', *BIS Bulletin*, 47.

- [3] Athanasoglou, P. P., Brissimis, S. N., & Delis, M. D. (2008). Bank-specific, industry-specific and macroeconomic determinants of bank profitability. *Journal of International Financial Markets, Institutions and Money*, 18(2), 121-136.
- [4] Bank of England (2020) Financial Stability Report - December 2020. Available at: <https://www.bankofengland.co.uk/financial-stability-report/2020/december-2020> (Accessed: 4th August, 2024).
- [5] Basel Committee on Banking Supervision (BCBS) (2020) Principles for operational resilience. Basel: Bank for International Settlements.
- [6] Berger, A. N., DeYoung, R., Genay, H., & Udell, G. F. (2000). Globalization of financial institutions: Evidence from cross-border banking performance. *Brookings-Wharton Papers on Financial Services*, 2000(1), 23-120.
- [7] Berger, A. N., El Ghouli, S., Guedhami, O., & Roman, R. A. (2017). Internationalization and bank risk. *Management Science*, 63(7), 2283-2301.
- [8] Berrospide, J.M., Correa, R., Goldberg, L.S. and Niepmann, F. (2022) 'International banking and cross-border effects of regulation: Lessons from the United States', *Journal of Money, Credit and Banking*, 54(1), pp. 215-257.
- [9] Bitar, M., Pukthuanthong, K. and Walker, T. (2018) 'The effect of capital ratios on the risk, efficiency and profitability of banks: Evidence from OECD countries', *Journal of International Financial Markets, Institutions and Money*, 53, pp. 227-262.
- [10] Bouzgarrou, H., Jouida, S. and Louhichi, W. (2018) 'Bank profitability during and before the financial crisis: Domestic versus foreign banks', *Research in International Business and Finance*, 44, pp. 26-39.
- [11] Bryman, A. and Bell, E. (2015) *Business research methods*. 4th edn. Oxford: Oxford University Press.
- [12] Buch, C. M., Koch, C. T., & Koetter, M. (2014). Should I stay or should I go? Bank productivity and internationalization decisions. *Journal of Banking & Finance*, 42, 266-282.
- [13] Buch, C.M., Neugebauer, K. and Schröder, C. (2019) 'Changing forces of gravity: How the crisis affected international banking', *Journal of Banking & Finance*, 102, pp. 266-281.
- [14] Cetorelli, N. and Goldberg, L.S. (2021) 'Liquidity management of US global banks: Internal capital markets in the Great Recession', *Journal of International Economics*, 131, p. 103456.
- [15] Chen, X., Liang, Y. and Ye, K. (2021) 'Foreign expansion, domestic contraction? Evidence from Chinese banks', *Journal of Corporate Finance*, 66, p. 101796.
- [16] Chen, Z., Liu, F.H., Opong, K. and Zhou, M. (2022) 'Income diversification and bank stability in a post financial crisis environment: Does one size fit all?', *Journal of Financial Stability*, 58, p. 100963.
- [17] Claessens, S. and Van Horen, N. (2021) 'Foreign banks and trade', *Journal of Financial Intermediation*, 45, p. 100856.
- [18] Claessens, S., & Van Horen, N. (2014). Foreign banks: Trends and impact. *Journal of Money, Credit and Banking*, 46(s1), 295-326.
- [19] Claessens, S., & Van Horen, N. (2015). The impact of the global financial crisis on banking globalization. *IMF Economic Review*, 63(4), 868-918.
- [20] Collis, J. and Hussey, R. (2014) *Business research: A practical guide for undergraduate and postgraduate students*. 4th edn. London: Palgrave Macmillan.
- [21] Creswell, J.W. and Creswell, J.D. (2018) *Research design: Qualitative, quantitative, and mixed methods approaches*. 5th edn. Thousand Oaks, CA: Sage publications.
- [22] Degl'Innocenti, M., Matousek, R. and Tzeremes, N.G. (2019) 'The interconnections of academic research and universities' "third mission": Evidence from the UK', *Research Policy*, 48(9), p. 103793.
- [23] Delis, M.D., Kokas, S. and Ongena, S. (2020) 'Bank market power and firm performance', *Review of Finance*, 24(4), pp. 783-818.
- [24] Demirgüç-Kunt, A., & Huizinga, H. (2010). Bank activity and funding strategies: The impact on risk and returns. *Journal of Financial Economics*, 98(3), 626-650.
- [25] Dietrich, A., & Wanzenried, G. (2011). Determinants of bank profitability before and during the crisis: Evidence from Switzerland. *Journal of International Financial Markets, Institutions and Money*, 21(3), 307-327.

- [26] Döring, B., Wewel, C. and Wendels, T. (2017) 'Organizational structure and banks' performance: A test of the "global advantage hypothesis"', *Journal of Banking & Finance*, 81, pp. 111-135.
- [27] Drago, D., Monferra, S. and Porzio, C. (2018) 'Non-traditional banking activities and bank lending', *Journal of Financial Stability*, 38, pp. 1-16.
- [28] Ehrentraud, A. and Zamil, R. (2020) 'Prudential response to debt under Covid-19: the supervisory challenges', *FSI Briefs*, 10.
- [29] Ehrentraud, J. and Mazo, R. (2020) 'Regulatory approaches to enhance banks' cyber-resilience', *FSI Insights on policy implementation No 21*. Basel: Bank for International Settlements.
- [30] Faia, E., Ottaviano, G.I. and Sanchez Arjona, I. (2019) 'International expansion and riskiest bank operations', *Journal of Financial Economics*, 132(2), pp. 499-516.
- [31] Fiechter, J., Ongena, S. and Tumer-Alkan, G. (2020) 'The financial stability implications of increased capital flows for emerging market economies', *Journal of Financial Stability*, 48, p. 100753.
- [32] Fries, S., & Taci, A. (2005). Cost efficiency of banks in transition: Evidence from 289 banks in 15 post-communist countries. *Journal of Banking & Finance*, 29(1), 55-81.
- [33] Gibbs G. (1988), *Learning by doing: A Guide to Teaching and Learning Methods*. Further Education Unit. Oxford Polytechnic: Oxford.
- [34] Gila-Gourgoura, E. and Nikolaidou, E. (2021) 'Credit risk determinants in the Eurozone banking system: Does bank type matter?', *International Journal of Finance & Economics*, 26(1), pp. 1196-1218.
- [35] Gong, Y., Liu, F.H. and Zhao, S. (2022) 'The impact of internationalization on bank risk-taking: Evidence from China', *International Review of Financial Analysis*, 81, p. 102073.
- [36] Gulamhussen, M.A., Hennart, J.F. and Pinheiro, C.M. (2018) 'What drives cross-border M&As in commercial banking?', *Journal of Banking & Finance*, 87, pp. 408-422.
- [37] Hagendorff, J., Keasey, K. and Vallascas, F. (2019) 'When banks grow too big for their national economies: Tail risks, risk channels, and government guarantees', *Journal of Financial and Quantitative Analysis*, 54(6), pp. 2391-2425.
- [38] Howarth, D. and Quaglia, L. (2021) 'The politics of post-crisis European financial regulation: Dynamics, justification and goals', *Journal of European Integration*, 43(1), pp. 1-18.
- [39] Hu, Y., Jiang, W. and Wu, X. (2021) 'The internationalization-performance relationship: A sigmoid analysis with Chinese banks', *Journal of International Financial Markets, Institutions and Money*, 70, p. 101273.
- [40] Jiang, Y., Liu, L. and Zheng, Y. (2023) 'Bank internationalization and lending behavior: Evidence from Chinese banks', *Journal of Banking & Finance*, 146, p. 106725.
- [41] Johnston, M.P. (2017) 'Secondary data analysis: A method of which the time has come', *Qualitative and Quantitative Methods in Libraries*, 3(3), pp. 619-626.
- [42] Karkowska, R. (2022) 'The impact of bank internationalization on systemic risk: Evidence from European banks', *Journal of International Financial Markets, Institutions and Money*, 77, p. 101522.
- [43] Lensink, R., Meesters, A., & Naaborg, I. (2008). Bank efficiency and foreign ownership: Do good institutions matter?. *Journal of Banking & Finance*, 32(5), 834-844.
- [44] Li, X., Feng, H., Zhao, S. and Carter, D.A. (2021) 'The effect of revenue diversification on bank profitability and risk during the COVID-19 pandemic', *Finance Research Letters*, 43, p. 101957.
- [45] Liang, X., Li, Y. and Liu, X. (2022) 'The impact of home and host country institutional changes on the internationalization of Chinese banks', *International Business Review*, 31(5), p. 101991.
- [46] Merz, J., Overesch, M. and Wamser, G. (2021) 'Tax vs. regulation policy and the location of financial sector FDI', *Journal of Banking & Finance*, 125, p. 106070.
- [47] Miller, S. R., & Parkhe, A. (2002). Is there a liability of foreignness in global banking? An empirical test of banks' X-efficiency. *Strategic Management Journal*, 23(1), 55-75.
- [48] Molyneux, P. and Wilson, J.O.S. (2022) 'Challenges facing UK banks in a post-Brexit world', *Journal of Financial Services Research*, 61(1), pp. 1-31.

- [49] Niepmann, F. and Schmidt-Eisenlohr, T. (2022) 'Foreign branches, local risks? Evidence from foreign bank branch location in the US', *Journal of Financial Economics*, 146(1), pp. 92-115.
- [50] Ongena, S., Qi, S. and Qin, F. (2019) 'Branch organization, local knowledge and loan performance: Evidence from small business lending in China', *Geneva Papers on Risk and Insurance-Issues and Practice*, 44(1), pp. 67-95.
- [51] Puthusserry, P., Khan, Z., Knight, G. and Miller, K. (2020) 'How do rapidly internationalizing SMEs learn? Exploring the link between network relationships, learning approaches and post-entry growth of rapidly internationalizing SMEs from emerging markets', *Management International Review*, 60(4), pp. 515-542.
- [52] Saunders, M.N., Lewis, P. and Thornhill, A. (2019) *Research methods for business students*. 8th edn. Harlow: Pearson.
- [53] Slager, A. (2020) 'International banking in the aftermath of the global financial crisis: Strategies of internationalization and business models', in *The Palgrave Handbook of Corporate Sustainability in the Digital Era*. Cham: Palgrave Macmillan, pp. 533-551.
- [54] Tran, V.T., Lin, C.T. and Nguyen, H. (2021) 'On the determinants of bank efficiency: evidence from an emerging market', *Asian Economic and Financial Review*, 11(2), pp. 168-180.
- [55] Zaheer, S. and Allen, L. (2021) 'Internationalization and performance of banks: The role of regulatory institutions', *Journal of International Business Studies*, 52(6), pp. 1154-1178.
- [56] Zhu, S., Chen, X. and Zhao, H. (2022) 'How do banks internationalize? A study on the internationalization of Chinese commercial banks', *International Business Review*, 31(4), p. 101982.