CHAPTER 2

Review of Literature

2.1 Introduction

This chapter primarily deals with a systematic literature review on banking performance. The chapter also examined the literature on factors such as board diversity, banking efficiency, inflation expectations, and oil prices. The chapter highlights research gaps discovered by a study of the literature.

Figure 2.1 shows the number of publications linked to banking performance by country wise. It shows that the United States has the largest number of articles published on banking performance. USA has one of the world's most complex and sophisticated financial systems. The United States' economic structure and regulatory framework are regularly cited as examples for other countries. This global significance indicates that research on US banking performance is important both locally and globally, increasing its visibility and citation rate. According to Web of Science statistics, India ranks 11th on the list. In comparison to top countries, the number of publications on India's banking performance is rather low. The Indian banking industry's worldwide relevance is highlighted by its effect on global commerce, investment, financial stability, and innovation. As India's economy expands and integrates more with the global economy, the importance of its banking industry in the world area is anticipated to rise. It implies that India's banking industry has a large space for additional investigation.

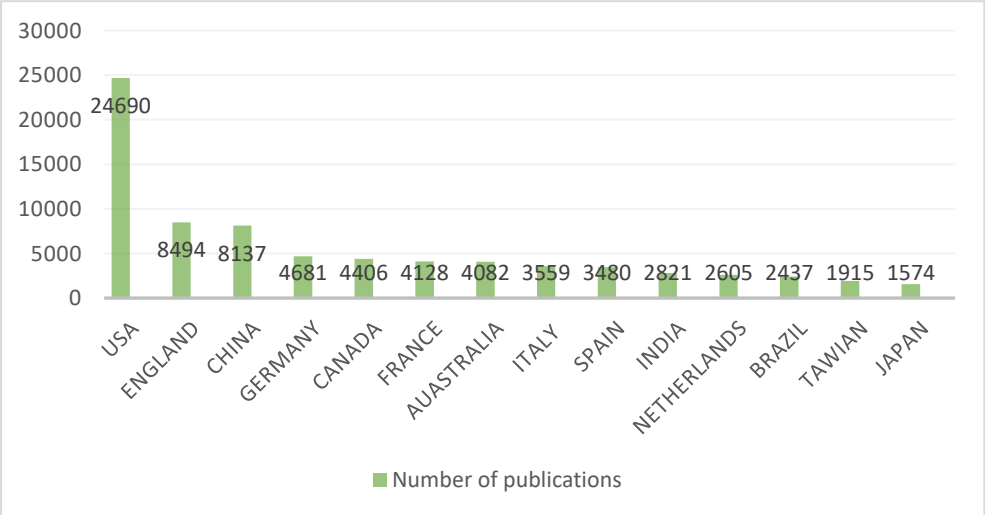

Figure 2.1: Country wise- number of publications on banking performance

Source: Web of science

Figure 2.2 shows the trend of publication and citations of articles related to banking performance in India. It is evident that the relevance of studies on Indian banking sector is increasing over the years. Moreover, the number of citations has increased drastically. Economic reforms, technology developments, and legislative changes have substantially impacted India's banking system. Additionally, India is one of the world's fastest-growing major economies. The success of the banking system is critical to economic growth, drawing both domestic and foreign experts to investigate many aspects of Indian banking. Overall, the dynamic character of the Indian banking industry, together with its importance to the economy, draws the attention of scholars and enhances the citation and publishing of relevant studies.

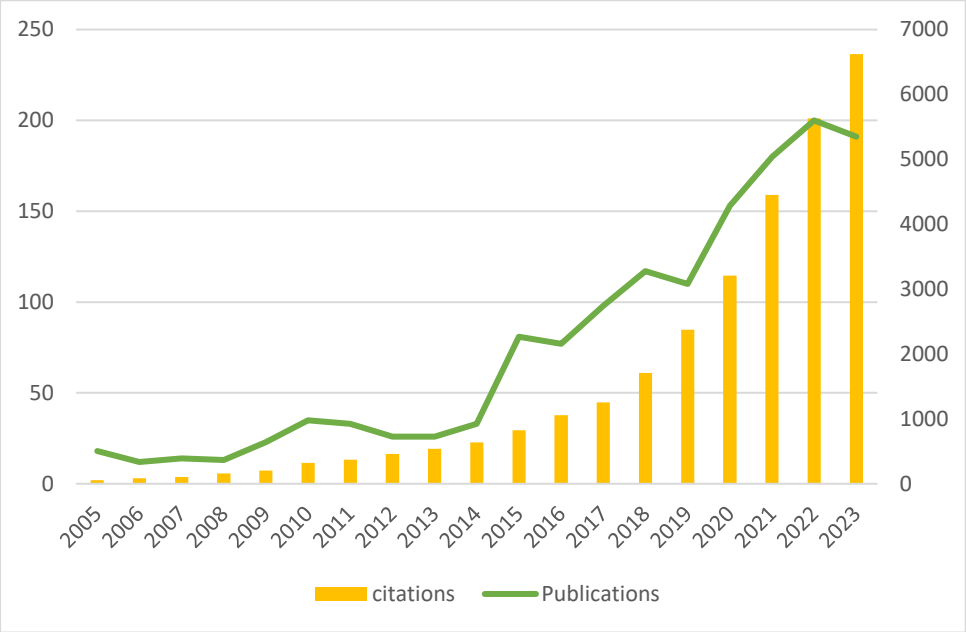

Figure 2.2: Trend of publication and citation

Source: Web of science

2.2 Determinants of Banking Performance

As discussed earlier the Indian banking sector underwent a drastic change after the 1990's financial reforms. The changes were aimed at enhancing banking profitability, efficiency, and productivity (Ghosh, 2016). These banking reforms gave operation freedom to public sector banks while bringing into force de-regulation of interest, branch de-licensing, and entry de-regulation. Later we can see that in the mid-nineteenth century, the Indian banking sector started welcoming private banks (Pradhan et al., 2014). The technology development brought another milestone to the Indian banking scenario. Even though, still profitability

is considered as the major determinant for measuring the performance of the banking sector, efficient management, operations efficiencies, non-interest income, provisions and contingency are other factors that are considered as factors influencing the performance of the Indian banking sector (Kumar et al., 2018). In addition, Singhal et al.(2011) highlight that NPA and regulation are other significant factors worth considering. Inflation is a macroeconomic condition that might affect the financial system's performance and it can have a bad impact on the Indian economy and its growth (Boyd et al., 2001). Sometimes inflation may act like a virus that stays virtually in the economy and affect all types of economic activities (Chioma & Odinaudoeze, 2017). In such a situation, inflation expectations can capture the ongoing banking performance and economic activities to bring stability to the banking performance (Abaidoo & Anyigba, 2020).

There are several studies on the growth and performance of the banking industry in the United States. Smirlock (1985);Micco et al. (2007); Hirtle and Stiroh (2007); Abaidoo and Anyigba (2020); Pennacchi and Santos (2021) and Nippani and Ling (2021) revealed that the market price shares has a significant relationship with the banking performance which supports the traditional hypothesis that profitability and equity shares have positive relationship. Further, Williams (2003) finds that the GDP growth rate of the home country and non-interest income are positively associated with the US banking sector performance. The relationship between US banking performance with economic scale and productive efficiency was studied by Goddard and Molyneux (2004) and it was discovered that there exists a positive relationship. The role of ownership and banking performance has been evaluated by Micco et al.(2007). Their results found that state-owned banks show lower performance than other ownership banks. However, their study only focused on commercial banks and excluded investment banks, multilateral government banks, etc. Hirtle and Stiroh (2007) examine how the size of the bank and the latest developments affect bank performance in the United States. Pennacchi and Santos (2018) used ROA and ROE, interest margin, and debt ratio to measure banking performance and concluded that financial ratios give a better picture of banking performance. Abaidoo and Anyigba (2020) find that inflationary condition also influences banking performance. Later Nippani and Ling (2021) stated that ROE is the best measure for analysing the performance of banks compared to Earnings Per Share. This study extended the standard structural model of analysis to franchise value, deposit insurance, and corporate income tax. While going through the studies of the US banking sector, it has been observed that they give more

focus on ROA and ROE for measuring banking profitability and factors like ownership, market price, economic scale of production, bank size, GDP rate, non-interest income, inflation, and inflationary conditions are the main factors that determine the US banking profitability. Profitability, is a widely considered measure of banking performance in the existing literature.

Developing countries like China also give importance to the determinants of banking performance. The studies by Pinto and Hawaldar (2017); Lin et al.(2020); Ozdincer and Ozyildirim (2008); García et al.(2009) and Tsai et al.(2015) found various factors that influence banking performance in China. Pinto et al. (2017)) discovered that oil shocks affect banking performance. The study measured banking performance based on capital adequacy, asset quality, management earnings, and liquidity. While evaluating different types of ownership, Lin and Zhang(2020) found that state-owned commercial banks show lower performance. Here ROA and ROE were used as banking performance indicators. Later García et al. (2009) investigated the relationship between ownership and performance and discovered that government intervention influences banking performance. They studied the impact of banks ownership on performance, efficiency, and risk with the help of the OLS model and concluded that ownership plays a vital role in banking performance. The study by Tsai et al. (2015) measured the impact of equity cost on the performance and safety of the bank. The study by Ozdincer and Ozyildirim (2008) identified the impact of geographical diversification on a bank's net interest margin, market share value, and interest income as indicators of banking performance. In the studies conducted on the Chinese banking sector, ownership, type of banks, geographical diversities, oil shocks, and cost of equity are found to be the main determinants of Chinese banking performance. ROE, ROA, capital adequacy, asset quality, management, and liquidity were used as main indicators for Chinese banking performance.

In the case of India, several studies are found related to the Indian banking sector and its performance such as Sensarma (2006); Lopatta and Tchikov (2016);Raut et al. (2017); Kumar et al. (2018);and Choubey and Sharma, (2021);. Sensarma (2006) established that the productivity and efficiency of domestic banks are higher than foreign banks. In his study deposits, loan, and the size of the bank were considered as a proxy of banking performance. Later Choubey and Sharma (2021) concluded that green corporate social responsibility can increase customer trust and later performance. In a broader sense,

corporate social responsibility also influences banking performance. Chaluvadi et al. (2018) found corporate social responsibility has a huge role in banking development and performance. Kumar et al. (2018) ascertained banking performance in terms of total factors productivity change, efficiency, and return of scale. Lopatta and Tchikov (2016)used ROE, ROA, and NIM as a measurement for the performance of the bank. Size, loan asset ratio, GDP, deposit asset ratio, and market concentration are certain other determinants of Indian banking performance They further found that lending rates and inflation hurt the performance of banking sectors (Karimzadeh & Sasouli, 2013). Thus, from the extant literature, it is evident that in the Indian context CSR, green banking, ownership, banks size, GDP, loan asset ratio, market concentration, lending rate, and inflation rate are the main determinants of banking performance.

Table 2.1 below provides a summary of the various determinants of banking performance found in the existing literature across different geographical locations.

Table 2.1: List of variables considered by various researchers

Author(s)	Industry-specific	Bank specific	Macro	Country	Banking performance
Delis et al. (2017)	Ownership, Concentration,	Capital, credit risk, productivity, expenses management, Size of the bank	Inflation expectation, Cyclic output	Greek	ROA ROE
Owen and Temesavery (2018)		Gender diversity, a wealth of board directors, age of directors, tenure of directors, loan ratio capital ratio, Board size		USA	ROA ROE Sharp ratio Stock price growth
Nouaili et al. (2015)	Financial market maturity Market concentration	Size, Capitalization, Efficiency, Ownership structure, Risk, Market share, Governance	Inflation Business scale	Tunisia	ROA ROE NIM

Phan et al.(2020)	Fintech	CAP (equity-to-total-assets ratio),CTI (cost-to-income ratio), LLP (loan loss provision), DG (deposit growth), IIS (interest income share), funding cost (FC)	GDP Inflation Consumer price index	Indonesia	ROA ROE NIM
Shen(2013)	Market competition	Governance	GDP Consumer price index	46 countries	ROE ROE
Gosh(2017)		Gender diversity, Bank size, Capital adequacy ratio, NPA, Income diversity		India	Tobin's q Roa & Z score
Liangliang et al.(2013)		Pre-provision profit ratio, NPL ratio, NPL stock, NCO ratio, NCO level, bank size, loan ratio, and capital adequacy ratio	GDP	China	ROA
Lin and Zhang(2009)	Ownership	Fee income ratio Loan to bank ratio Characteristics of board		China	ROA ROE COI NPL
Almaqtari et al.(2020)		Corporate Governance variables		India	ROA ROE NIM
Al-Homaidi et al. (2018)		Size of the bank, asset quality, capital availability, liquidity, operational efficiency, deposits, leverage, assets, management, branch network	Inflation GDP	India	ROA ROE NIM
Seenaiah et al. (2015)		Operating earnings, cost of deposits, labour ratio, bills to total expenditure, share of priority sector lending, provisions for nonperforming assets, net interest Margin		India	ROA ROE

Maiti and Jana (2017)		Non-performing assets, loan to deposits ratio, operating cost, non-interest income ratio, business per employee, net interest margin, capital to risk, weighted assets ratio		India	ROA ROE
Bapat (2017)		Non-performing loans (NPL), income Diversification, alternative income to operating income, lending deposit ratio, the cost to income ratio, the banking industry ownership, size of the bank, financial crisis	GDP Inflation growth	India	ROA ROE
Sinha and Sharma (2016)		Provisions for non-performing assets as a percentage of total assets, capital-to-assets ratio, yearly deposit growth, size of the bank, non-interest income, and operational expenditures as a percentage of total assets	GDP growth, inflation rate,	India	ROA ROE

Source: author compilation

The above table presents the list of variables that have been commonly studied as determinants of banking performance. The variables include different firm-level, industrial-level, and macro-level factors. The following sections presents a review of existing literature on the role of board gender diversity, banking efficiency, inflation expectation and oil price in influencing performance of the banking sector.

2.3 Board gender diversity and banking performance

Theoretical framework: The relationship between board diversity and bank performance as well as gender diversity and bank performance are explained by the agency theory, Human capital theory, and Resource dependency theory.

Agency theory by **Alchian and Demsetz (1972) & Meckling and Jensen (1976)** believes that board independence and diversity increase the effectiveness of an organization (Biswas et al., 2021). The level of heterogeneity in the board is determined by gender, education, and tenure, etc. (Arioglu,2020). Heterogeneity present among the members of the board is known as board diversity. It covers different attributes like gender, age, tenure, education, ethnicity, experience, nationality, etc (Adams et al., (2015). According to the Agency theory, female directors are better at monitoring. Therefore, the presence of a female on the board will increase the productiveness of the firm (Adams et al., 2015). Diversity on boards can be seen as a strategy to increase board independence and provide a broad base of balanced interests, resulting in better control and alignment of interests (Taljaard et al., 2015). It believes that board diversity can lead to an increase in the effectiveness of monitoring, which can eventually lead to transparent and reliable reporting (Sharifah et al., 2012). Resource dependency theory of **Pfeffer and** Salancik (1970) is another prominent theory that explains the linkage between board diversity and firm performance (Salancik & Pfeffer, 2016). This theory explains how the external resources affect the behaviour of the firm. Firms always try to follow societal norms and values to achieve legitimacy. To do justice towards the society they appoint the women directors in a board committee and give equal opportunities. This theory assumes that women and men behave differently to the same information. It will affect the outcomes of the firm (Biswas,2021). It holds that organizations get a strategic advantage through the acquisition and production of valuable resources since board members and potential board members frequently showcase their experience, competence, and reputation which may help the company (Sharifah et al., 2012). Further, Tokenism theory by Kanter (1977), also provides a basis for the understanding of the association between board diversity and firm performance. It states that, a large scale of board diversity can have a significant impact on organizational performance. Otherwise, diversity is considered just a symbol or token (Torchia et al., 2011). Tokenism can create negative consequences if boards start to maintain tokenism

only as a mandatory requirement of gender diversity rather than because they are the best, most qualified women who can create an impact with their decisions (Rixom et al., 2022).

Literature Review: In recent years, the banking industry has become a global economic engine in collaboration with other economic sectors, public institutions, and companies. Academicians and regulators are concerned about bank governance issues for an efficient operation of the banking sector and the economy. Besides academicians and regulators are more concerned about bank governance issues. Since they felt that "effective corporate governance is crucial to the efficient operation of the banking sector and the economy as a whole," (BCBS - Basel Committee on Banking Supervision, 2015:3). Board diversity is one of the main elements in corporate governance, reflecting the composition of the board. Board composition is significantly associated with the market value as well as the overall performance of the banking system because boards are accountable not just to stakeholders but also works for protecting the interest of the country. The failure of the boards may lead to the financial crisis and recessions (Chan, 2015). Bank's board is significantly large and more autonomous than those in the non-financial sector and they are also going through a high level of scrutiny compared to directors of publicly traded nonbanking corporations (De et al., 2012).

Empirical studies have highlighted the significance of gender in the board for ensuring board diversity. The high level of innovation and creativity among diverse groups promotes variety in viewpoints and results in significant improvement of quality at top-level decision-making (Hagendorff et al., 2007). Rost and Osterloh (2010) argue that a lack of heterogeneity and differentiated viewpoints on the board will lead to the failure of the firm. Almandoz and Tilcsik (2016) supported the above arguments through their findings and conclude that the financial health of the firm is determined by the composition of the board. The performance of a firm is found to be positively influenced by gender diversity by studies like Carter et al. (2003) Campbell and Vera (2008), and Nguyen et al.(2015). Gender diversity can provide increased monitoring and operate as an extra governance mechanism that would assist enterprises in overcoming the limitations set by poor governance (Adams andFerreira, (2009): Gul, and Hong (2020)). Gender diversity reduces a firm's risk level (Perryman et al (2016) and Vieito and Khan (2012)) and creates a favorable impact on the strategic control of the board (Nielsen and Huse, 2010)). According to the agency theory, female directors are better at monitoring. Therefore, the

presence of a female on the board will increase the firm's productiveness (Adams et al., 2015). Further, Galletta et al. (2022) found that female managers are more interested in addressing social issues than female directors. At the same time, they also found that increasing the proportion of female directors improves the financial performance of banks. Therefore, they suggest a right combination of female mangers and female directors to improve social performance along with financial performance. Studies like Ghosh (2017); Roberts (2015); Singh and Vinnicombe (2004); Torchia et al.(2011) have found that there is a favourable impact of presence of women directors on banking institutions as their presence increases the banking stability and performance stability. Additionally, performance and diversity show a nonlinear relationship while using critical mass theory (Torchia et al., 2011). Women representatives in the direct board always uses tough monitoring techniques that lead to better managerial accountability of firms (Roberts et al., 2015). Women always consider their role very seriously than men directors that might help the organization to achieve better performance (Singh et al., 2004). Even though they are good at monitoring, they always prefer to play safe and not ready to make risky investments, and are always being risk-averse. (Cardillo et al. (2020); Sood (2021)). The cooperative policies formed by the board served by female CEO and directive will reduce the environmental hazards and females act as more environmentally conscious than male CEO or directors. (Liu, 2018). Galia and Zenou (2012) found that gender diversity shows positive influences on market innovation and negative influences on product innovation. The presence of female directors facilitates an enhanced and effective decision-making process, as women typically devote more time to their work than men. Female directors have greater attendance rates than men on their boards, and their presence on a board has a significant and favorable impact on the attendance rates of male directors (Dang et al., 2020).

Contrarily, a negative correlation between female directors on board and the firm's performance is found by studies like Adams and Ferreira (2009) and Shrader et al. (2020) upon investigating how gender diversity in management affects the performance of firms. Even though the ethical and moral perspective of society supports gender diversity at the management level, but business prospective and theories support that presence of women representative create a negative impact on cooperative performance (Kagazi & Guha, 2018). Huse (2007) says that gender diversity in the board will decrease the efficiency of the decision-making capacity of the firm. Adams and Ferreira (2009) stated that enforcing

gender quotas could reduce shareholder value in firms with effective governance since it could lead to over-monitoring in those organizations. Alesina and La Ferrara (2005) point out that high gender diversity leads to high communication costs and conflicts. Moreover, investors react adversely when female board members are appointed causing a negative impact on future stock prices (Dobbin and Jung (2011). According to Wellalage and Locke (2013) gender diversity increases agency costs and lowers business performance. However, when three or more women are appointed to the board, the positive impact on financial performance is visible and highly significant when compared to lesser levels of female board presence (Brahma et al., 2021) highlighting the significance of the Tokenism theory. Fischer et al. (1993) also supported the Tokenism theory which states that gender equality may be achieved through an increasing number of women in the organization. Green and Homroy (2018) examined the effects of female board members on the performance of European companies found that only when women directors are well integrated into corporate governance, they have a positive impact. Arnaboldi et al.(2020) proposed a diversity index to measure the relationship between board diversity and bank performance, and interestingly they found that there is no impact of gender diversity on banking performance.

The impact of board gender diversity on India's banking performance has not been sufficiently explored. Apparently, in India, female directors are show higher risk-taking behaviour, probably due to their lack of experience. Moreover, diversity in the nationality of directors shows a negative effect on Indian banking performance due to distance issues, difficulty to access up-to-date information, and communication issues that could lead to conflicts (Rafinda et al., 2018). When women directors become independent or executive directors, they can help in increasing banking stability even though they have no significant impact on the banking behavior ascribed to over-monitoring habits as well as inadequate skill (Ghosh, 2017). García-Meca et al. (2014) suggest that women directors are not alternatives for typical corporate directors with comparable talents, but rather competent women directors have unique attributes which provide value to banks. Owen & Temesvary (2018) found that female participation benefits banks only once they reach a particular level of gender diversity.

2.4 Banking efficiency and banking performance

Theoretical framework: The relationship between banking efficiency and banking performance is explained by the efficient structure hypothesis (ESH). Demsetz (1973) and Petzman (1977) proposed ESH posits the interdependence among efficiency and profitability. According to efficient hypothesis theory, only efficient firms can win the competition and achieve proper growth. Thus, it leads to an increase in the market concentration (Mensi & Zouari 2010). Under the ES hypothesis, firms with efficient management and production technology can enjoy lower production costs and therefore higher profit (Alhassan et al., 2016). ESH contradicts the traditional structure conduct performance (SCP) hypothesis. According to SCP a large number of market shares and a high degree of market power are considered as the determinant of performance (Bikker & Bos, 2008). SCP believes that high market concentration leads to a reduction of cost and an increase in profit. Furthermore, it assumes that industrial behavior and performance are determined by the structure of the industry (Mensi & Zouari 2010). ESH disagrees with the SCP hypothesis and ESH indicates that banking efficiency is the better determinant of banking profitability instead of a concentrated banking structure.

Literature Review: Efficiency indicates the capacity to use the resource with minimum cost that will improve the banking performance of the country and market power and banking efficiency structure will decide the level of banking performance of the country (Athanasoglou et al., 2005). The word efficiency means the ratio of output that comes out of a system based on total input that went on it (Sufian & Chong, 2009). Banking performance is influenced by both firm-level factors and industrial-level factors. Individual banking efficiency is considered as a firm-level factor (Daly & Frikha, 2017) affecting banking performance.

In the existing literature, efficiency of banks is mostly studied along the lines of cost efficiency and technical efficiency. Daly and Frikha (2017); Mensi and Tel,(2010) found that cost efficiency of banks is positively associated with economic growth through banking performance. On the other hand, the technical efficiency of banks is directly affected by the stock return of the firm (Gu and Yue, 2011). Maji and Hussain (2021) found that technical efficiency and intellectual capital efficiency have a high impact on the banks with better performance. Contrarily, Nouaili et al. (2015) studies proved that banking performance is not influenced by banking efficiency. However, productivity and

efficiency are always considered the best indicators of banking performance (Wahab & Haron, 2016). Several studies (Delis & Papanikolaou (2009); Girardone et al. (2007); Rangan et al.(1988); Repkova, (2015) have investigated the determinants of efficiency with bank-specific and market factors. Their findings do not support a uniform conclusion: characteristics identified to have a major impact on efficiency in one study may not be important in another. These disparities may be related to different methodological approaches used in the studies. Firms with superior technological efficiency or output-to-input ratio tend to have lower costs than their rivals. Such a company can cut its prices, capturing a larger market share and increasing profits. This demonstrates how efficiency, rather than market concentration, plays a critical role in increasing business market share (Maji andHussain, 2021).

According to Berger (1995), X-efficiency occurs when organizations have superior management or manufacturing methods, allowing them to achieve lower costs and thus higher profits and market share. Berger and Mester (1997) discovered that 25 accounting factors (excluding the price, production, non-performing loans, and equity variables already employed to assess efficiency) explained 7 per cent of the variance in cost efficiency between banks and 35 percent of the variance in profit efficiency. Subsequent research has established a weak to medium-strength relationship between accounting variables and measures of economic efficiency. For example, Maudos et al. (2002) found that accounting variables explained 9 percent of the variation in cost and profit efficiency measures. Meanwhile, Yildirim and Philippatos (2007) showed that accounting variables explained 34 percent of cost efficiency variance and 26 percent of profit efficiency variance and Staikouras et al. (2008) explained 59 percent of the cost efficiency differences between banks using additional accounting variables.

Profitability efficiency evaluates the ability of a corporation to generate profit with its revenue, operational costs, assets, or shareholders' equity. Profitability efficiency represents how well a corporation creates profit and benefits shareholders. It evaluates a business's ability to create profit in a specific setting. Moreover, it assess how efficiently a company uses its resources to maximize profits (Uddin et al., 2022). Luo (2003) quoted profitability as an important component of marketability since the actual value should be determined based on the existing stock price. Marketability assesses whether a commodity or service can appeal to consumers and be sold for a profit at a given price (Uddin et al.,

2022). Marketability efficiency has been measured in studies like Rakshit (2019) for India, Abbas and Arizah (2019) for Indonesia, According to Abbas and Arizah (2019), marketability efficiency reflects a business's potential to gain market power. Banking industries in established and emerging markets exhibit greater market strength. Market power can be defined as structure-conduct performance, which identifies market concentration and share (Masud et al., 2019).

Seiford (1999) measures profitability efficiency and marketability efficiency simultaneously, It found that relatively large banks do better in terms of profitability, whereas smaller banks perform better in terms of marketability. Similarly (Rakshit, 2022) found that in India where large banks perform well on profitability efficiency, small banks have done well on marketability efficiency. Private sector banks have demonstrated more efficiency in terms of profitability than public sector banks due to their greater potential to create income. But intermediation efficiency of public sector banks was superior to that of private sector banks. Even though, overall, public sector banks were inefficient due to a lack of income creation and management of NPAs (Kumar & Kumar, 2019).

The traditional method for measuring banking efficiency shows many disadvantages. To overcome these problems Banker et al. (1984) and Charnes et al. (1978) introduces DEA as the best method for estimating performance in the non-parametric method (Sufian, 2011) and SFA as best among the parametric methods (Nouaili et al., 2015). DEA method can be used to evaluate the banking efficiencies when the sample is small (Wahab & Haron, 2016). It uses linear programming procedures in non-parametric methods to identify production frontline based on input and output variables (Kuchler, 2013). Several studies applied DEA to measure banking efficiencies in a different context such as David and Vlad (2005); Zeitun (2012); Hassan (2019). David and Vlad (2005) defined fixed assets, interest expenditure, and personal expenditure as input for DEA and loan, liquid assets and revenue consider as output. Hassan (2019) consider five efficiency indexes to measure efficiency allocative, scale efficiency scores, cost, pure technical, and technical. Hadad and Hall (2011) applied the super efficiency Slack Based Model which was developed by Tone, (2001). Additionally, it is a modern version of the DEA model which consider input and output slacks.

2.5 Inflation expectation and banking performance

Theoretical framework: The role of inflation in banking performance can be explained by the Structural inflation theory, Fisher hypothesis, and Liquidity preference theory. Developed countries identify inflation purely based on monetary phenomena. In developing countries, inflation is related to fiscal imbalances in the economy (Sergent & Wallace, 1973. According to structural inflation theory, money supply is not an ultimate factor responsible for inflation. It believes that structural factors and economic phenomena cause inflation in developing or less developed countries (Totonchi, 2011). According to Fisher's hypothesis, there is a positive relationship between inflation and interest rate. Fisher's hypothesis states one to one association between nominal interest rate and inflation. This association highlights that an increase in one unit of the price will increase one unit of nominal interest rate (Ayub et al., 2014). Liquidity preference theory proposed by Keynes (1936) considers demand and supply as the determinants of interest rate based on transaction, precautionary, and speculative motives. Keyness assumes that the interest rate is the prize for sacrificing liquidity in their hand. Inflation in turn will be affected by the money held in hand. This will result in a significant impact on the profit of the firm (Marimba, 2018).

The role of Inflation expectation in financial behaviour and financial decisions of economic agents is explained by prominent theories such as the Rational expectation theory, Adaptive expectation theory, and Fisher's hypothesis. People always have an expectation about the future, based on which they are making future decisions. Expectations towards finance are essential because it will affect their financial behaviour and investment pattern (Anwar, 2017). According to the Rational expectation theory of Muth (1961), for future expectations, economic agents will employ all of the finest available data and economic theory. This theory believes that information regarding price level, aggregate output, and level of unemployment, etc. will boost the quality and precision of future decisions (Ahuja, 2008). These expectations are not always based on the optimal sense of available information. It is rather based on the nature and characteristics of the information available to the people (Lawson, 1981). Rational expectation theory assumes that every individual is rational. They are good at correctly understanding the economy. Based on all the available information, they will accurately anticipate the government's economic policies and their effect on the economy. Further, it

is believed that high volatility is present in product prices and wages (Ahuja, 2008). Secondly, the financial expectation is explained by the Adaptive expectation hypothesis (Friedman (2018) and Cagan (1991)). With the help of the adaptive expectation hypothesis, Friedman (2018) explains how income expectations are forming. Cagan (1991) uses adaptive rational expectation on inflation expectation generation. According to Friedman's adaptive expectation hypothesis, people will make decisions based on past events and trends rather than the information available to them. They make inflation expectations based on the previous inflation rate (Anwar (2017); Ahuja, (2008)). Adaptive expectation theory believes economic agents act as good statisticians that is why they were taken into consideration in the past observations. While the rational expectation hypothesis considers rationality means taking into consideration the changes happening in the economic environment (Chow, 2011). Even though the Adaptive expectation theory is not fully rational but it is valid when the data-forming process is unclear (Evans & Honkapohja, 2003). Finally, the Fisher hypothesis explains why expected inflation and the rate of interest have a favourable relation. When expected inflation is high, the investors also expect to have more profit. Finally, it will affect the bank's performance (Ayub et al., 2014).

Literature Review: The effect of inflation and inflation expectation on the banking performance have been explored by studies like Tan and Floros (2012); Abaidoo and Anyigba (2020); Pattanaik et al.(2020); Durmaz and Kagochi (2018); Sufian and Habibullah (2009); Guru (2002); Khan et al. (2014) and Khue and Lai (2020). Inflation and banking performance have exhibited a positive relationship in these studies provided inflation is anticipated correctly. Inflation expectation helps reduce inflation uncertainty and these factors significantly influence banking performance. Guru (2002) and Khan et al. (2014) showed a positive impact of inflation on banking performance. Tan and Floros (2012) highlight a positive relationship between banking performance, cost efficiency, and inflation in China. The study measured banking performance in terms of ROA, ROE, and NIM. Refuting the earlier studies, Durmaz and Kagochi (2018) concluded that that inflation does not influence financial sector performance in Sub-Saharan African (SSA) countries. Sufian and Chong (2009) conclude that inflation has a significant relationship with banking performance and these studies found a negative relationship. On the other hand, Maji and Hussain, (2021) have also found that inflation has no significant impact in the Indian banking performance in terms of profitability. Khue and Lai (2020) suggest

the use of threshold of regression models to find out that inflation have a significant influence on banking performance in the ASEAN-6 countries.

Although inflation expectations influence household and enterprise behaviour, the underlying mechanisms remain unknown, particularly for firms. Martin's (2020) comparative analysis examined inflation expectation in Serbia. It found that inflation expectations across all sectors aligned with the 3 percent inflation target. Households have higher inflation expectations than the target. Younas and Siddiqui (2021) analysed the relationship between inflation expectation, interest rates, and the stock market in Ghana using the VECM model and data from 2010 to 2016. The study highlighted the role of policy rates in creating inflation expectations and influencing economic dynamics. Cho and Oh (2023) used a survey of 2,200 households and a simple model to predict inflation expectations in Korea. The model included the policy interest rate and an inflation expectation indicator. The regression results indicate that monetary policy effectively controls inflation.

Inflation expectation creates a casual and stronger relationship with investment volatility (Abaidoo & Anyigba, 2020). Economic shocks of the country can increase expectation of future price levels (Moreira & Silva, 2013). Gürkaynak et al.(2015) found that well-anchored inflation expectation has no significant impact on investment performance and macroeconomic dynamics. Central banks' communication affects the inflation expectation of people and the quality of monetary policy (Ioana & Blaga, 2017). Inflation expectation is the determinant of financial decisions like how much to invest, save and consume (Berge, 2018). The main objective of central banks is to make stability in inflation and reduce the gap between actual inflation and inflation expectation (Yusuf & Muhammed, 2021). Inflation expectation helps reduce inflation uncertainty, and these factors significantly influence banking profitability. The inflation target framework is another matter which influences the central bank's transparency and performance in India (Pattanaik et al., 2020).

2.6 Oil price and banking performance

Theoretical framework: The oil price effect in banking performance is explained by the Lilien hypothesis (1982). According to Lilien's hypothesis (1982), oil price changes can alter the equilibrium allocation of resources in various sectors. Increasing and decreasing

oil prices will be able to generate expansion or contraction of oil used in the production process of the industrial sector. Oil intensive sector and energy efficient sector readjust oil used according to the oil shocks. It will affect the overall performance of the economy (Ghalayini, 2011). Macroeconomic changes will significantly influence banking performance. According to the supply-side effect, when the availability of oil decreases, it will result in an oil price hike as per demand. Later it will lead to a rise in cost, reduction of production, etc. Finally, it will slow down the overall economy (Abel & Bernanke, 2001). Crude oil price sensitivity will significantly affect the business environment and business conditions of the country. Moreover, the effect of the price will differ in the financial and non-financial sectors (Sodeyfi & Katircioglu, 2016). The quality of assets and profitability will depend on the bank level indicators and macro-economic forces (Killins & Mollicks, 2020). Countries like India and China highly depend on external sources for oil consumption. Hence, the changes happening in the oil price will affect the production mechanism of the industry. Furthermore, it results in a significant impact on the financial institution of the country (Lee&Lee, 2019). Banking performance is affected by oil price through two different channels. The first one is the inflation effect channel. Here, a rise in inflation results in a credit market friction hike as well as it adversely affects the performance of financial institutions (Boyad et al., 2001). Secondly, the economic growth and unemployment effect channel establish a negative relationship between oil price and economic progress (Kilian, 2008). Additionally, it will lead to a reduction in terms of management efficiency, capitalization, liquidity, and earning power of the bank (Lee&Lee, 2019).

LiteratureReview: The price of crude oil serves as a proxy for the cost of alternative ene rgy sources(Mensah & Näsström, 2022). Hamilton's (1983) pioneering work on the relationship between oil price and economic growth has created interest among researchers. Hamilton found that oil prices have a negative impact on actual output. Oil price variations significantly affect global welfare (Donwa et al.,2015). According to Hamilton (2009), most recessions in G7 countries from 1970 to 2007 were preceded by oil supply shocks. Supply-side shocks brought on by a finite oil supply are likely to exacerbate the situation in both oil-importing and oil-exporting nations (Tverberg 2012). Oil price changes may impact economic growth in both oil-importing and exporting countries, but in opposite directions. According to the Solow's neoclassical theory (1956), every economy has both an oil and non-oil sector, with the assumption that global oil prices will

always rise. Oil-importing nations will transfer money to oil-exporting nations under these circumstances through supply and demand dynamics. Supply-side shocks have the most significant impact on bank risk.

Oil price shocks are determined externally and impact the financial system and economy of the nation in multiple channels (Gbatu et al., 2017). An oil speculative shock can make bank risk levels to climb. Banks are concerned about the rise in oil price due to its impact on the economy and government budget. An rise in oil price leads to a higher non-performing assets. The decrease in oil price has a detrimental influence on the economy as it leads to more bad loans and poses a danger to the banking industry (Annas et al., 2024). According to Idris and Nayan (2016), volatility of oil prices negatively impact non-performing loans. According to Chin et al. (2012), increasing oil prices initially improves credit worthiness and reduces non performing loans. However, after a specific threshold is reached, the relationship reverses. International oil price shocks have varying effects on economic growth, inflation, current account deficit, and fiscal deficit (Das et al., 2014). Moreover, oil revenue directly affects bank efficiency, whereas positive oil price shocks have an indirect impact through inflation and economic development. Study indicates that as oil prices rise, banks in oil-exporting countries gain from more income, leading to improved performance (Kaffash, 2014).

Oil price changes can impact the banking industry and economic growth through many transmission pathways (Ma et al., 2021). Said (2015) examined the relationship between oil price volatility and bank efficiency across MENA countries. After accounting for the financial crisis of 2008-2009, the study found no significant direct effect of oil price volatility on banking sector performance. Oil price movements have an indirect impact on the banking sector's soundness through macroeconomic indicators. Jalili et al. (2019) investigated the relationship between oil price changes and economic growth in 31 oil-rich nations from 1980 to 2015. Their findings suggest that oil rent has a favourable impact on economic growth. The authors claim that financial system development plays a significant role in influencing oil prices and economic growth. The study examined how economic conditions affected the relationship between oil prices and financial system development in eight middle eastern nations from 2012 to 2017. The study found that oil price changes affect banking sector performance differently across countries, depending on economic advancement. Hesse and Poghosyan (2016) also highlighted that oil price is expected to

have an impact on the economy through both direct and indirect pathways. Oil price fluctuations can impact bank performance through lending, business activity, and surplus liquidity (Sodeyfi & Katircioglu, 2016). Oil revenue can be a significant part of a country's external and government income, affecting fiscal spending and corporate and bank performance through lending. According to Katırcıoglu et al. (2020), direct effects show that credit risk and oil prices have significant negative and unstable effects on banking sector performance. As stated by Hammoudeh and Reboredo (2018), the indirect channel indicates that the oil price impact on banking performance is transferred through a country's macroeconomic and institutional qualities, as well as improved expectations and business sentiment and found that there is no direct channel impact on banking performance. Meanwhile, oil and gas price shocks was observed to have no direct effect on non-performing loans in Qatari banks, but rather have an indirect impact through country-specific factors such as GDP growth, fiscal position, and unemployment rate (Saif-Alyousfi et al., 2021). According to the Lee and Lee (2019), oil prices have a significant effect on banking performance. A rise in oil prices reduces banking performance in terms of capitalization, management efficiency, earning power, and liquidity. However, country stability mitigates these negative consequences, particularly in terms of economic and political stability. Fitriaty et al (2018) found no substantial relationship between fuel oil prices and banks profitability. Reduced oil-related business lending explains the negative and direct consequences of oil price variations on ROA and NIM. Bank profitability may suffer considerably if loans and related business activity for companies involved in the oil industry drop (Katırcıoglu et al., 2020).

2.6.1 Inflation Expectation as a Channel of the Oil price-banking performance linkage

Even though there is disagreement over whether monetary policy can mitigate the detrimental effects of oil shocks on the macroeconomy (Hamilton and Herrera, 2004). Existing research shows that monetary authorities can react to oil shocks and that oil shocks can increase inflationary pressure on an economy. The main question is how much monetary policy responses can be transferred to the actual economy (Kilian and Lewis, 2011). In the case of banking performance, inflation expectation and inflation are the highly critical indicator with a direct link to monetary policy, but they also reflect the banking profitability. Abaidoo and Anyigba (2020) finds that inflation expectations have

negative constraint in the US banking system. While, Maria and Hussain (2023) reveals the negative effect of inflation and inflation expectations on the market-based performance of the banking sector. It implies that India's banks profitability would decline if the country's predicted inflation is high. As inflation expectations rise, investors expect higher returns, making investments more expensive. This results in a negative correlation between inflation expectation and banking profitability. Meanwhile they discovered the positive impact of inflation and inflation expectation on the accounting-based performance of the banking sector. If inflation expectations rise in parallel with the actual path of current inflation, the central bank will change its monetary policies by raising interest rates. Banks can raise their profits as interest rates climb. Katırcıoglu et al. (2020) suggests that Turkish banks should consider the indirect consequences of oil price changes on profitability, which may occur through inflation as a channel. Perry (1992) found that bank profitability improves when inflation expectations are fully anticipated. Bank management must consider changes in oil prices while modifying their interest rates in response to inflation expectations in order to generate revenues faster than costs and achieve larger profits (Katırcıoglu et al., 2020).

2.7 Conclusion

The present chapter focused on a literature review of banking performance and the factors affecting banking performance. It discussed the study's theoretical foundation as well as empirical studies carried out in this area. The review of literature provides crucial insights on the existing gap in this field of research.