

# **Banking Performance in India: Influence of Diversity, Efficiency and Macroeconomic Variables**

A thesis submitted in part fulfillment of the requirements  
for the degree of  
**Doctor of Philosophy**

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# CHAPTER 8

## Conclusion

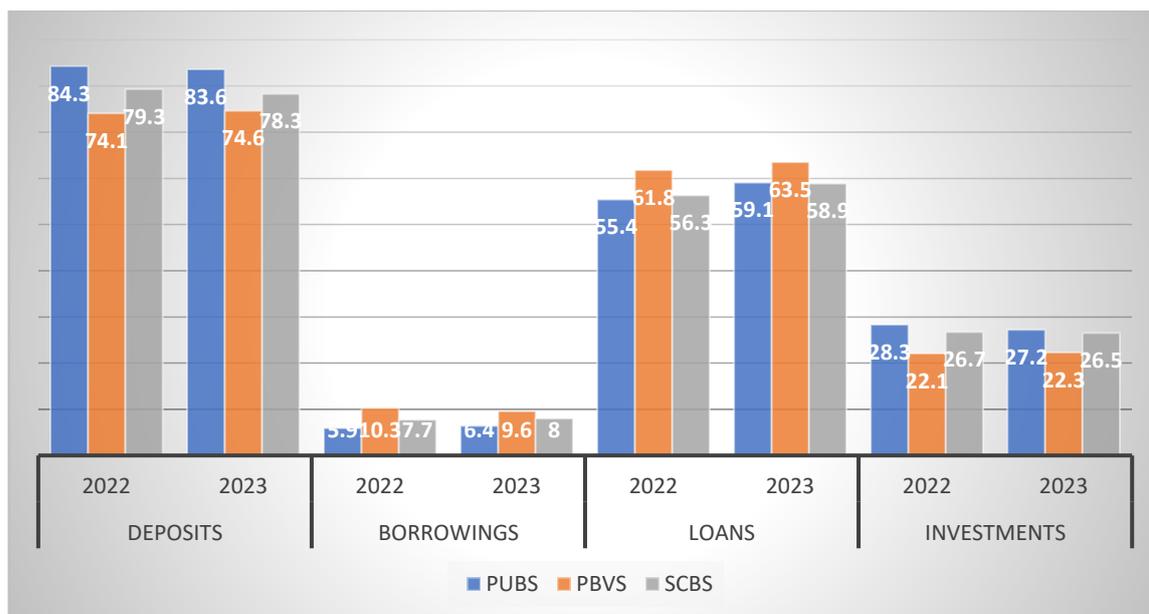
### 8.1 Introduction

The banking system in India is unique compared to other Asian nations due to the country's distinctive geographic, social, and economic characteristics. India's large population, vast land size, diverse culture, and significant income disparities across regions provide a distinct background. Despite high levels of illiteracy in a portion of the population, the country also boasts a substantial pool of managerial and technologically advanced talent. India's economic policy framework combines aspects of socialism and capitalism, prioritizing public sector investment. Unlike other Asian economies, India focuses on growth-driven exports rather than export-led growth, emphasizing self-reliance through import substitution. These characteristics reflect the composition, scale, and variety of the nation's banking and financial system. The objectives of economic policies, particularly regarding equitable income distribution, balanced regional economic growth, and the reduction and elimination of private sector monopolies in trade and industry, have required the banking system to function. The banking sector underwent several nationalization programs at different stages to operate as a tool of governmental policy (Deolalkar 2010). The Indian banking industry was nationalized in three phases such 1955, 1969, and 1980 to serve as a state policy tool. Banking in India was mostly focused on internal goals, such as branch expansion and courting new customers, resulting in a lack of international presence. The banking sector supports several economic sectors, including agriculture, small-scale businesses, exports, and banking activities in metro, urban, and limited semi-urban areas. The banking system's international isolation stemmed from rigorous branch licensing regulations for existing foreign banks and entry limitations for new ones. Indian banks must adhere to a reciprocity principle when opening offices abroad. These characteristics have left the Indian banking system with both problems and strengths. Indian banks face the problem of achieving operational efficiency for modern financial intermediation, given their current ownership structure. Public sector banks have found it easier to recapitalize despite increased bad assets due to their government-dominated ownership structure, which reduces conflicts of interest compared to private banks (Deolalkar, 2010). There are certain areas where the Indian banking industry has excelled. The bank's size and rural penetration make it a model for developing countries, and

depositors value its stability. Penetration in rural areas has been linked to lower poverty rates and diversification from agriculture. However, in recent years, it has been considered both costly and ineffective. Some say that banks are overstaffed, have a high percentage of nonperforming assets, and fail to adequately finance the business. Various solutions have been proposed, including tightening the legal system to punish defaulters, eliminating targeted lending programs, and privatizing the banking industry entirely. The Indian banking sector is gradually improving due to improved asset quality and strengthened resolutions under the Insolvency and Bankruptcy Code (IBC). Although bad assets have decreased and provisioning has improved, the banking sector's profitability is still shaky. The government's recapitalization of public sector banks and private sector banks' capital raising activities have improved bank capital positions(Das, 2020)

The Indian financial system has been resilient due to strong macroeconomic fundamentals and effective regulatory oversight. The focus has been on creating a level playing field for all regulated entities (REs), improving governance practices, expanding financial services, and promoting digital banking while protecting customer interests and the financial sector. India's policy environment in 2022-23 was dominated by inflationary pressures caused by the conflict in Ukraine, rising global commodity prices, and instability in financial markets. Monetary policy tightened in tandem with fiscal consolidation and supply-side initiatives to address rising food and fuel prices. The MPC increased the policy repo rate by 250 basis points (bps) from 4 percent to 6.50 percent in the year 2022-2023. The policy posture switched from 'accommodation' during the pandemic to 'removal of accommodation' to gradually align inflation with the target while supporting growth. During 2022-23, commercial banks' total balance sheets rose by double digits, owing to sustained loan expansion. Lower slippages helped improve asset quality across all bank groups, with scheduled commercial banks' (SCBs) GNPA to total advances ratio reaching a 10-year low. Higher lending rates and fewer provisioning requirements improved banks' profitability and capital positions.

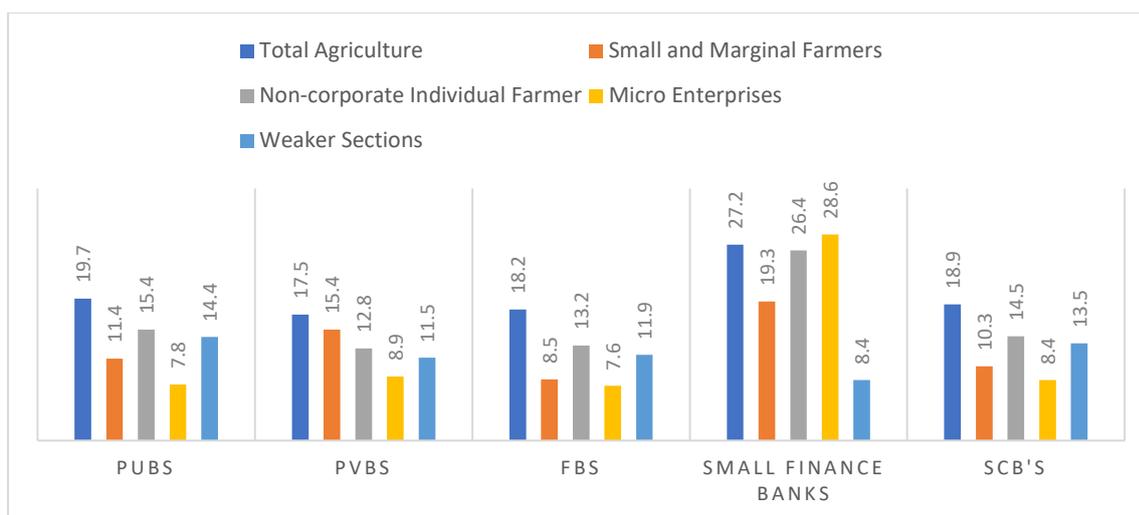
Public sector banks (PSBs) share in the consolidated financial sheet of scheduled commercial banks decreased from 58.6 percent in March 2022 to 57.6 percent in March 2023, while private sector banks increased from 34.0 to 34.7 percent. In March 2023, PSBs accounted for 61.4 percent of SCB deposits and 57.9 percent of advances



**Figure 8.1 Bank Group-wise Balance Sheet Composition**

**Source: RBI**

The Indian government has initiated numerous banking projects. The goal was to provide financial services to all segments of society and the economy. The Indian banking system has seen a significant transformation in the recent few years. Banking services are becoming more accessible and affordable in India's remote areas because of advancements in technology (Malik 2019). The banking system has to cooperate with economic strategies and focus on equitable income distribution, balanced regional growth, and reducing private sector monopolies in trade and industry. Figure 8.2 shows that small finance banks are contributing to all segments of society and the economy compared to scheduled commercial banks. It shows that small finance banks providing more contribution to different sector of economy except the case of weaker section. The same time, PSBs provide more contribution to upliftment of weaker section of the economy. We can conclude that Indian banking sector is significantly contributing different sections of economy for their upliftment.



**Figure 8.2 Sector-wise banks ' contribution**

**Source:** RBI

The leverage ratio (LR) is a non-risk-based backstop measure that complements the Basel III risk-based capital framework. Domestic systemically important banks (D-SIBs) in India must maintain it at 4 percent, while other banks must maintain it at 3.5 percent, compared to the Basel III recommendation of 3 percent. As of March 2023, all bank groups had met the minimum requirements. The liquidity coverage ratio (LCR) ensures banks have enough high-quality liquid assets (HQLAs) to withstand 30 days of liquidity crisis. At the end of March 2023, all bank groups exceeded the required HQLA of 100 percent of net cash outflows within 30 days.

**Table 8.1: Liquidity and leverage ratio**

Variables	Year	PUBS	PVBS	FBS	SCBS
Leverage Ratio	2021	5	9.7	10.7	7
	2022	5.1	9.7	11	7.2
	2023	5.6	9.6	10.8	7.4
Liquidity Ratio	2021	169.8	136.1	178.8	158.9
	2022	155.8	127.1	171	147.1
	2023	153.5	127.9	154	144.6

**Source:** RBI

The latest mergers of public sector banks (PSBs) began in April 2017 with the merging of a few associate banks of State Bank of India (SBI) and another PSB with SBI. Exactly two years later, in April 2019, two more PSBs merged with Bank of Baroda. The goal was to create strong and competitive banks through PSB consolidation, as proclaimed by the Government of India (GoI, 2019). In April 2020, the Government of India (GoI) combined ten PSBs into four, a move dubbed "mega consolidation." Punjab National Bank (PNB) and Union Bank of India (UBI) combined two PSBs each, whereas Canara Bank and Indian Bank merged one PSB each. Consequently, the number of PSBs decreased from 27 in March 2017 to 12 in April 2020. Gandhi (2016) suggested that the benefits obtained by large banks owing to risk diversification would be lost if the bank's size exceeded a certain threshold. He noted the lack of clear study on the subject and emphasized the importance of such research in determining the optimal size of a bank in a country.

The banking sector in India is rapidly approaching perfect competition. The banking sector's performance is recognized to be influenced by macroeconomic, industry-specific, and bank-specific economic variables inside a country. These elements' effects on banking performance have been extensively covered in earlier research. However, given the evolving nature of the Indian banking industry, it is imperative to investigate supplementary factors that may influence the sector's overall performance.

## **8.2 Board diversity and banking performance**

We found that board gender diversity has been gradually improving in the Indian banking sector since 2015 after the implementation of the Companies Act, 2013. Further, we found that the board gender diversity in private banks is relatively better than that in public sector banks in India during 2015-2021.

Next, we studied the impact of board gender diversity on the performance of both public sector and private sector banks and it has been found significant. We have obtained mixed results depending on the indicator of banking performance. Gender diversity is found to positively impact accounting-based indicators -ROA of bank performance - in both public and private sector banks. Meanwhile, the effect of gender diversity on ROE varies in both cases of private and public sector banks. Since private sector banks have larger number women director compared to public sector banks. It creates a positive impact in the case

of ROE of private banks. Additionally, gender diversity has a negative impact on the market-based indicator Tobin's Q in both public and private sector banks.

Naturally, if women's representation is increased on the board, it brings heterogeneity to the board and adds to better decision-making and policy framing. Of course, the representation of women should be adequate as suggested by the Tokenism theory to make the necessary impact on the board's decision. However, the impact of gender diversity on a bank's performance is also influenced by the existing socio-cultural nature of the country.

Even though a heterogeneous board promotes diverse perspectives, experiences, and insights into decision-making, the socio-cultural factors influence the attitude of investors. It often leads to a rather critical apprehension by the investors about the performance of the firm due to the presence of women members on the board. This in turn may lead to a reduction in the share value of the banks and adversely affect the market-based indicator of the bank's performance. This is seen to be reflected in our findings for Tobin's Q which is observed to react negatively towards the board gender diversity (Maria & Hussain, 2024). While Western ideas and lifestyles have progressively permeated Asian cultures, not everyone views gender equality as "progress." developing countries have seen a high impact from tokenism and stereotype threat. The degree of socio-economic growth reflects the degree of modification made to traditional normative frameworks (Low et al., 2015). Thus, board gender diversity does not affect firm financial performance in isolation, but rather in combination with other board and firm characteristics which explains the divergence in the findings.

### **8.3 Banking efficiency and banking performance:**

From the efficiency analysis, we discovered seven banks that are most efficient in terms of profitability. They are the State bank of India, Central bank of India, HDFC, ICICI, Axis bank, IndusInd Bank Ltd., and Kotak Mahindra Bank Ltd. Out of them, the first two are public sector while the latter five are private sector banks. The better performance of private sector banks compared to that of public sector banks in profitability efficiency can be attributed to the higher level of NPAs of public sector banks in India from 2005 to 2021. The marketability efficiency analysis revealed five banks to be most efficient, namely the State Bank of India, Central Bank of India, and ICICI banks. Ltd, HDFC bank. Ltd and Axis Bank. ltd. While the first two are public sector banks, the other three are private.

Over the years, the number of top-performing banks in terms of profitability efficiency has decreased, raising concerns for the banking sector in India. In 2021, the worst-performing banks in this regard were UCO with a profitability efficiency of 0.81, Bank of India with 0.85, and Punjab and Sind Bank with 0.87. Furthermore, the number of banks performing well in the market has decreased, presenting a significant challenge for the banking sector and capital market in India. In 2021, the least marketable efficient banks were Punjab Sind Bank (0.41), IDBI (0.41), UCO Bank (0.47), Karur Vysya Bank (0.49), J&K Bank (0.5), and South Indian Bank (0.52). These scores are notably low, with Punjab Sind Bank, IDBI, UCO Bank, and Karur Vysya Bank having marketability efficiency below 50%. Additionally, Punjab Sind Bank and UCO Bank rank poorly in both profitability and marketability efficiency, requiring immediate attention.

Profitability efficiency and marketability efficiency are found to be significant and positively related to banking performance across the three different measures of a bank's performance. Higher profitability efficiency gives banks more room to improve cost effectiveness, which raises bank performance. Moreover, bank's involvement and performance in the share market is crucial as it positively influence the share market by improving liquidity. The liquidity in the capital market allows investors to quickly turn their investments into cash as needed, lowering the risk of being unable to sell assets amid volatile market conditions or emergencies. It will increase the trust of investors in banks creating a positive impact on banking performance.

#### **8.4 Inflation expectation and banking performance:**

We find that inflation expectation is a significant determinant of banking performance. Both inflation and inflation expectations show a positive impact on accounting-based measures of banking performance. If inflation expectation rises with the actual trend of current inflation, it will result in workers demanding higher wages and higher interest rates on their investments. To accommodate the hike in wages, businesses will have to raise the prices of the product which, in turn, would drive up inflation. To reduce rising inflation in the economy, the central bank will make adjustments in the monetary policies by changing the interest rates of the banks. It will increase the bank rates to curb the excess money supply in the economy. Banks can make extra profits as bank rates go up. However, inflation expectation has a negative impact on Tobin's Q. The rising inflation expectations drive clients to expect more return on their investments. Investment decisions with long-

term pay-offs take into account these expectations of future economic variables. So, investors' expectations of inflation will decide where they want to invest. They Favor inflation-protected securities as a better investment option. To retain investors, banks will have to provide high interest rates on the investments and meet the investors' expectations. Eventually, it affects the return of the investors.

Inflation has been found to have a significant and positive impact on both Return on Assets (ROA) and Return on Equity (ROE). Banks adjust their interest rates based on the level of inflation in the economy, leading to increased revenues that outpace costs, thereby positively impacting profitability. Additionally, during periods of high inflation, corporate financing decreases while there is an increase in demand for consumer and microfinance financing, along with higher interest rates being charged. This results in attractive returns on shareholder investments. Previous studies by Tan & Floros and Khan et al. have also shown that inflation positively affects ROA and ROE. However, inflation has a significantly negative impact on Tobin's Q, suggesting that businesses may raise prices to offset the additional cost of producing goods and services. While banks may profit from increased market value, their cost of funds may also rise, leading to a negative effect of inflation on Tobin's Q.

### **8.5 Oil price and banking performance:**

We found that changes in the oil price have a significant and impact on banking sector performance in India. This impact is observed to hold true when macroeconomic variables are accounted for. Hence a direct impact of oil price fluctuation on banking profitability is established. It means the impact of oil price changes is transmitted to banking sector performance through the channels of oil-related lending, banking business activity, or excess liquidity in the banking sector. Increasing oil prices can be associated with increased profits in oil manufacturing and related industries. When the economy is expanding, businesses borrow more, leading to higher interest income for banks. This positively impacts both ROE and ROA. However, fluctuations in oil prices causes stock market volatility. It also brings down bank market performance as higher borrowing costs can restrict consumer spending and business investment. This severely impacts corporate earnings and, as a result, market values diminish. This severely impacts corporate earnings and, as a result, market values diminish. We also find a significant moderating role of inflation expectation on the relationship between oil prices and banking performance. The

moderation effect is found to be negative. Due to rising oil prices, an economy experiences higher inflation. If inflation expectation rises with the actual trend of current inflation, banks will have to provide high interest rates on the investments and meet the investors' expectations. It will negatively affect the banking profitability position (Maria & Hussain, 2023). In addition, higher expected inflation may result in a higher discount rate, which reduces the present value of future earnings and it leads to subsidizing the value of equity. Inflationary expectations can influence the economic situation of the country which will automatically affect the borrowers' ability to repay loans as it increases the debt burden on borrowers. This can lead to a rise in non-performing loans and lower the bank's asset quality. In summary, inflationary expectations when associated with rising oil prices can create uncertainties and problems for a bank's profitability, asset quality, and overall financial health, affecting banking performance in India. India majorly being an oil importing country faces the brunt of oil price volatility with the rise in the costs of manufacturing and transportation due to inflationary pressure in the economy. This validates the findings of the negative moderating role of inflation expectation on the relationship between oil prices and banking performance.

### **8.6 Suggestions & Policy Recommendations:**

Banking performance is influenced by not just bank-specific elements. Along with bank-specific factors, corporate governance and macroeconomic factors play a vital role. The adoption of proper management policies and macroeconomic policies taking into account - bank-specific and macroeconomic variables, will help in enhancing the bank's performance and in achieving economic growth. Even though the banking sector can't control the changes in macroeconomic factors, proper management policies, a balanced board, and efficiency can help to reduce the negative impact of inflation expectations and oil price changes. Thus, the study provides crucial insights to develop strategic decisions for the Indian banking sector.

- The relationship between gender diversity and bank performance has significant implications for organizations, shareholders, managers, and policymakers. In India, efforts are being made to implement stronger corporate governance practices due to the low number of female directors, which may lead to tokenism in the banking sector. To address this, including independent female directors can help limit tokenism and nepotism. Despite historical male dominance and societal attitudes,

a gender-diverse workforce substantially contributes to a firm's financial performance. Therefore, prioritizing diversity is crucial for banks to improve their performance.

- The representation of women on the boards in the Indian banking sector is not adequate. The banking sector needs to prioritize appointing more female directors based on their capacity rather than just meeting quotas. Additionally, public sector banks need to focus more on women's representation on their boards, as a lower number of women directors can have a negative impact on banking performance.
- Banking success is influenced by more than just the number of bank-specific elements. Everything depends on how effectively banks utilize their resources. Therefore, the Indian banking industry should equally focus on profitability and marketability efficiency. While profitability efficiency is necessary for a bank, marketability efficiency is as important, given that the genuine worth of a bank should eventually be determined by the current stock market. The Indian banking sector should place a greater emphasis on marketability and expedite its drive to broaden its horizons in order to capture the capital market and improve its market value. Market-efficient banks increase their shareholders' wealth and returns.
- Public sector banks should prioritize fee and commission income, as it is more stable due to upfront payments. Mobilizing deposits can increase a bank's market share and improve company operations. Banks in India, particularly PSBs, should diversify revenue generation tactics such as fees and commissions to reduce non-performing assets. Diversifying revenue streams helps banks gain market share in the banking sector. To boost efficiency in PSBs, government shareholding should be minimized, which could help PSBs manage loan defaults.
- The central bank should consider implementing the "Bad Bank" concept to handle the non-performing assets (NPAs) in the Indian banking sector. The "Bad Bank" is an institution that deals with purchasing and managing the NPAs of banks, which mainly consist of bad loans or unprofitable investments that are hard to sell off. By transferring these troubled assets to a bad bank, the original banks can improve their balance sheets and concentrate on their primary operations.

- The increasing number of fraudulent activities in the banking sector has a direct negative impact on the market performance of both private and public sector banks, leading to a decline in market efficiency. Therefore, banks need to prioritize addressing fraudulent practices within the sector. It is recommended that Indian banking institutions establish internal forensic accounting teams to effectively manage and prevent these frauds.
- Inflation expectations affect the performance of banks and the monetary policy of the country. Inflation expectations are considered a direct policy tool by policymakers for the stability of the economy. The Central Bank of India should properly anchor inflation to the agents, which will help them to form inflation expectations correctly. This, in turn, will help banks take proper measures to curb inflation and make a positive impact.
- The adoption of proper macroeconomic policies, taking into account inflation expectation levels, is instrumental in enhancing banks' performance and achieving economic growth. Inflation often has global causes and implications. Coordinated efforts with other central banks and international financial institutions can help manage global inflationary pressures.
- Central banks should provide clear guidance on their inflation targets and the measures they will take to achieve them. This helps manage public and market expectations. Regularly publishing reports on economic conditions and monetary policy decisions can build trust and predictability.
- Governments should encourage strong economic policies and good governance to create buffers against the negative impact of oil prices on bank performance.
- The financial system should review its procedures to reduce credit risks associated with oil price volatility. Bank managers should consider developing early warning and reaction capabilities and utilize inflationary conditions properly to enhance the performance of the banks.

- Banks should diversify their loan portfolios across various sectors to mitigate the risk associated with any single industry, including the oil sector. By spreading exposure, banks can reduce the impact of oil price volatility on their overall asset quality.
- Banks need to maintain higher capital adequacy ratios to absorb potential losses due to oil price volatility and build additional capital buffers during stable or high oil prices to prepare for potential downturns.
- Central banks should establish early warning systems to identify signs of distress from borrowers affected by oil price fluctuations and use them to proactively minimize potential losses.

### **8.7 Future scope of the study**

Although the study tried to present a comprehensive analysis on the factors influencing performance of the banking industry in India, yet there is certain scope to carry out future research in this area. We point out a few such contexts below-

- This study is limited to the Indian banking sector. A cross-country analysis considering other emerging nations would be able to provide a comparative picture, pointing out the position and performance of the banking industry in India and the role of various determinants of its performance.
- The present study focused on the impact of gender diversity of board of directors on banking performance. Future researchers can assess the impact of other dimensions of board diversity such as education diversity, age diversity, nationality diversity of directors and overall diversity of boards on banking performance
- Future researchers can compare the effect of board gender diversity on banking performance prior to and after the Companies Act, 2013.
- Future researcher can assess the impact of different efficiency namely, green efficiency, human capital efficiency on banking financial performance in India.
- The present study only considers household inflation expectations to measure the impact on banking performance. Future researchers can assess the impact of firms'

and professional expectations on banking performance. Furthermore, they can consider measuring the impact of consumer sentiments regarding the economy on banking performance with the help of consumer confidence surveys.

Thus, we conclude our study highlighting the role of bank-specific, board-specific and macro-economic factors shaping the performance of the banking sector in India. Some relevant policy implications have been provided in each of our objectives after a proper analysis of the current state that exists, which could be instrumental towards improving performance, efficiency and competitiveness of the banking sector in India.

*Would you like me to give you a formula for success? It's quite simple, really: Double your rate of failure. You are thinking of failure as the enemy of success. But it isn't at all. You can be discouraged by failure or you can learn from it, so go ahead and make mistakes. Make all you can. Because remember, that's where you will find success*

*(Thomas J. Watson)*

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