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FINANCIAL ACCOUNTING MANIPULATIONS AND BANKRUPTCY LIKELIHOOD: A STUDY OF NORDIC BANKS

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Abstract

The phenomena of accounting manipulations and bankruptcy likelihood have always been a topic of interest among researchers. The key objective of the current study is to examine the impact of fraudulent accounting practices on the likelihood of bankruptcy, and the performance of firms. Beneish M-score model and Jones model have been applied to evaluate earnings quality, whereas the Altman Z-score model has been used to analyze the level of financial distress. Based on the analysis of secondary data collected from 33 Nordic banks for the period 2011–2018, the findings disclose that Z-score of most of the sample banks has been found to be relatively high thus representing their high level of financial health. The study does not rule out potential earnings management measures applied by the sample banks. Furthermore, earnings manipulations increase the bankruptcy likelihood, especially in case of larger banks. The financial data manipulation practices *artificially* enhance the financial performance of banks, however, in a broad perspective; such manipulations can trigger potential financial distress.

1. INTRODUCTION

Nordic countries are well known for the high level of trust in every walk of life. Nordic countries have a distinction of being among the least corrupt countries in the world for a long time (Romberg, 2019). Nordic banks have recovered better than their other European counterparts after the financial crisis in 2008 (Berglund & Mäkinen, 2016). In general, the Nordic banking industry has been free from financial crime activities, for example, Nordic banks have experienced a minimal incidence of occurrence of anti-money laundering (AML) scandals. Unlike their other European counterparts, Nordic banks have been least affected by technological and operational process transformations, and this feature highlights the readiness of Nordic banks to adapt according to new developments in the fast-changing business environment.

However, in recent times there have been a few instances of the alleged involvement of several Nordic banks in money laundering scandals. This unhealthy phenomenon in the Nordic banking industry needs thorough academic investigation to understand its dynamics. Notably, the stock market reaction, after the accusations of manipulations were made against the concerned banks, has been highly adverse. For example, the value of Danske Bank's shares fell by half in one of the largest money-laundering scandals. Nordea lost one-fifth of its market value after its name appeared in several investigations related to financial wrongdoings (Milne, 2018). Between 2007 and 2015, 200 billion euros from uncertain sources have been channeled through Danske's Estonian branches ("Watchdog launches probe", 2019).

The abovementioned developments have raised doubts on the traditional reputation concerning honesty, trust, transparency, integrity, objectivity, and fairness of the Nordic banking industry. Several banking organizations in the region have come forward to erase the taints in their reputation. For example, Nordea has invested more than 730 million euros and recruited more than 1500 employees to fight financial crimes. Handelsbanken has hired more people having expertise in artificial intelligence (AI) to ensure secure and swift transactions.

Therefore, in the above-mentioned research background, the authors endeavor to explore the following highly relevant research questions:

RQ1: Do accounting manipulations affect the bankruptcy likelihood of the Nordic banks?

RQ2: Do accounting manipulations influence the performance measures of the Nordic banks?

The findings show that there is some evidence of the Nordic banks committing acts of earnings management in their financial reports. Similarly, a significant association has been found between discretionary accruals and bankruptcy likelihood. In other words, accounting manipulations, as *proxied* by Jone's model and Beneish's M-Score model,

decrease Altman's Z-score value (i.e., increases the risk of bankruptcy of banks). Furthermore, a positive association has been found between accounting manipulations and the performance measures of banks.

2. REVIEW OF LITERATURE

Business organizations provide financial reporting and disclosures to communicate their financial health to the outside world. Financial information and data play an important role in affecting the financial decisions of investors, and other stakeholders. In the words of Ball (2008), "the financial reporting is as an important economic activity" (p. 2), as these reports provide information which can be useful in various aspects related to firm operations, investment, and financing decisions; assessing future cash flow prospects of the current and future projects; and estimating firms' existing, and potential resources as well as claims to these resources. True financial data underlines the true value of business organizations. In some situations, certain business entities may have the motivation to manipulate the financial results favorably to attract the capital and positively maneuver their stock prices, among other reasons. Similarly, on other occasions, the business organizations may attempt to show their financial results unfavorably to get favorable treatment from tax authorities and lending institutions. To minimize risks of any opportunities of hidden information and therefore to maximize the quality of financial reporting, the high standards of financial reporting are always in demand. Earnings persistence is a key characteristic of the quality of financial reporting. However, there are other characteristics too such as predictability, and significance of accruals (Nell, 2019).

One of the important facts about earnings quality is that it can differ across firms operating in different business sectors, even if there are not any manipulations in financial reporting. The reason for such disparity is that some firms need more forecasting and estimations, especially when it concerns fast-growing firms, which spend a significant amount of money on intangibles, R&D, and promotional activities. Mistakes in estimations can decrease the persistence of firms' earnings and incorrect valuation. Although the concept of earnings quality is vague, however, in real life it is possible to improve the quality of financial reporting if accruals can 'smooth out' unvalued changes in the cash flows. The principal objective of accounting standards is to make financial data reliable and relevant. *Reliable* information is easy to be checked and it should be reasonably free from mistakes. *Relevant* information is recorded on time and provides the opportunity to make a true valuation of a firm (Dechow & Schrand, 2004).

Melumad and Nissim (2008) have described true earnings as the combination of the following characteristics:

- conservatism — the quality conservatively estimated earnings is high since they are unlikely to be overstated in the sense of future performance;
- economic earnings — the quality of earnings is high when they are reported accurately and reflect the changes in the value of the firm according to its operational activities;
- persistence — earnings are of high quality if they are sustainable, i.e., the current level of earnings is approximately the same as future one; this definition relates to the volatility of earnings;
- stability — high earnings quality implies the low volatility;
- predictability — high quality of earnings means that earnings must be predictable.

One of the most important reasons why firms go bankrupt is the unfavorable effect of the macroeconomic environment on their performance. Macroeconomic risk is the main source for banks of systemic risk which has a huge impact on the performance of the banking sector. There is a strong correlation between the level of macroeconomic characteristics, such as interest rate, inflation, unemployment rate, and a firm's earnings.

Banks and other financial institutions face additional challenges concerning their balance sheet in comparison with their non-banking (financial) counterparts. Banks unlike other kinds of businesses have a huge part of their assets in loans. Loans are the least liquid and the riskiest asset. Therefore, if a bank has higher equity in a percentage of assets, it is less likely to fail due to its limited repayment obligations. In other words, the less equity a bank has, the less protection it has from loan losses.

The current study tests the following two hypotheses which will be formulated in the following way:

1 Do accounting manipulations affect bankruptcy likelihood?

H1₀: There is no association between accounting manipulations and bankruptcy likelihood.

H1₁: There is an association between accounting manipulations and bankruptcy likelihood.

2 Do accounting manipulations influence banks' performance?

H2₀: There is no association between accounting manipulations and firm performance.

H2₁: There is an association between accounting manipulations and firm performance.

3. RESEARCH DESIGN

Current research is based on multiple-source secondary data, which has been collected from sample banks' financial reports, including income statements, balance sheets, and cash-flow statements, of the Nordic

banks. For the current research, the data of 33 Scandinavian banks have been obtained for the period 2011 and 2018. The data has been collected from financial reports of sample banks and the NASDAQ OMX Nordic database.

In the current study, two methods of financial reporting quality have been applied. The first one is Jones (1991) model based on discretionary accruals.

Another method of measuring financial reporting quality is the Beneish M-score model (Beneish, 1999). Beneish model detects changes in income and expenses. An abnormal increase in income as well as an abnormal decrease in expenses are a sign that earnings management is applied.

Altman Z-Score model has been applied to underline the likelihood of bankruptcy/financial distress experienced by a firm (Altman, 1968, 1973). The Z-score shows the state of a company, whether there is a risk of bankruptcy.

4. KEY FINDINGS AND CONCLUSION

The findings of the current study show that discretionary accruals have a negative impact on Z-score. In other words, the incidence of earnings manipulations increases the bankruptcy likelihood of banks. Similarly, banks having a higher market value of equity value have been observed to have a lower Z-score. Basically, the above result shows that larger banks are more likely to go bankrupt. Financial health is affected by two statistically significant predictors — discretionary accruals and equity value. Both variables decrease Z-score values.

The research also shows that the mean Z-score underscores the impressive financial health of the Scandinavian banks. The theoretical background highlights that the failure of large banks is impossible because governments control and secure the financial system from systemic risk. Although, there has been a decline in Z-score, however, the fall has not been too steep. Scandinavian banks are still in good financial health, in general, but their operating performance has worsened.

Overall, it can be argued that earnings manipulations can be a trigger of bankruptcy likelihood of Nordic banks. Earnings manipulations, as highlighted by various components of the Beneish M-score, show a statistically significant impact on the likelihood of financial distress of banks.

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