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Factors Influencing Corporate Creditworthiness: Case Study in the Egyptian Banking Sector

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Abstract

Granting loans to corporate clients is the main source of income for banks. However, those loans are associated with a certain level of credit risk that is the inability of clients to meet their obligations toward banks. The occurrence of credit risk can negatively affect banks' profitability and business continuity. Considering the fast-evolving environment, the competition between banks, and the asymmetry of information, mitigating credit risk becomes a main duty of banks. The aim of this qualitative study was to determine the financial and non-financial factors that have a significant impact on corporate clients' creditworthiness. The aim is to help credit risk assessors to enhance the quality of the credit risk assessment and to make timely and accurate credit decisions. The study was focused on the Egyptian banking sector and distinguished between large companies and small and medium enterprises. The study revealed a list of financial and non-financial factors that have a significant impact on the creditworthiness of each category of companies as judged by credit risk assessors. The study also found that there are similarities and differences between both sizes of companies in terms of the factors that affect their creditworthiness.

Keywords: Credit risk, corporate creditworthiness, credit risk assessment, large companies, SMEs

Introduction

The banking sector plays a primary role in the economy by offering financial services to states, businesses, and people. Granting loans to finance industrial and non-industrial activities of corporate clients is one of the key roles of banks that boost economic growth (Çelik, 2019). However, banks are facing many challenges in assessing the creditworthiness of corporate clients to decide whether the quality of the credit is good or bad (Boushnak et al., 2018).

The Egyptian banking sector is similar to other banking sectors worldwide and it also faces many challenges concerning the credit assessment of corporate clients. The banking sector in Egypt went through many economic challenges during the period from 2012 until 2022. First, the Egyptian revolutions that occurred in 2011 and 2013. Then, the Egyptian pounds (EGP) devaluation by 13% against the United States dollar (USD) on March 2016 was followed by the EGP free float on November 2016 (Ahmed & Ahmed, 2016; Lina & Asma, 2016). While the situation started to stabilize after all the major political and economic changes, the banking sector faced a big challenge due to the spread of the Coronavirus pandemic that had affected the global economy worldwide and not only the Egyptian economy (Demirguc-Kunt et al., 2020). All aforementioned economic and political changes had an impact on the creditworthiness of banks' customers and their abilities to meet their obligations.

Furthermore, banks are working on growing their portfolios of clients to gain a larger market share and increase profitability in light of the fierce competition in the market (Shahin et al., 2021). To stay competitive, credit assessors make credit decisions within a relatively short time frame to face competition while analyzing a huge amount of data that cover different aspects. At the same time, decision-makers need to ensure the good quality of credit to avoid the increase in the non-performing loans ratio that negatively affects banks' profitability.

Moreover, the recent direction of the central bank of Egypt (CBE) is to expand the financing granted to corporate clients with a specific focus on the small and medium enterprises (SMEs) segment to stimulate the economy. In 2021, CBE mandated banks to expand the lending directed to the SMEs segment. As per CBE instructions, the SMEs segment should represent 25% of the total banks' portfolio by 2022 (Central Bank of Egypt, 2021). Worth to mention that there are many challenges associated with the assessment of the creditworthiness of SMEs specifically, due to the lack of reliability and transparency of information provided by SME clients (Boushnak et al., 2018).

Hence, credit risk assessors in the Egyptian banking sector are handling an increasing flow of credit loan applications in a fast-evolving environment and competition between banks so that the non-performing loans ratio could increase and negatively affect banks' profitability. This research was to determine the financial and non-financial factors that credit assessors perceive to have a significant impact on the creditworthiness of corporate clients. The objective of this study was to help credit risk assessors in focusing on important data that matter the most in making credit decisions so they can handle the increasing flow of credit loan applications while avoiding the occurrence of non-performing loans.

The study aimed to distinguish between the assessment of large companies and small and medium enterprises to examine if there is a difference between the assessment of companies based on their size. That is important as both segments of companies are different in many characteristics such as the financial needs, the level of transparency, and the availability of data.

Asymmetric Information Theory and Bounded Rationality Theory

To find a foundation for the research, this study used the asymmetric information theory and the bounded rationality theory. The asymmetric information theory was first demonstrated by George Akerlof in 1970. According to Akerlof (1970), when asymmetric information exists between buyer and seller, it is difficult to distinguish between high- and low-quality goods. Asymmetric information exists when one of the two parties has more information than the second party which in turn has an impact on the decision made by the second party. In credit risk assessment, asymmetric information exists when the bank does not have access to complete information about the borrower to make credit decisions. According to Abad et al. (2017), the asymmetric information in credit risk is associated with firms' size, the smaller the size of a company the higher the existence of information asymmetry when dealing with banks.

Based on the bounded rationality theory introduced by Herbert Simon in 1955, humans cannot make perfect decisions due to their limited mental capabilities to collect and analyze information. Then, in the context of the credit risk assessment, credit assessors need to ration their credit decisions based on the relevant information they have access to (Antoine et al., 2021; Tfaily, 2017; Tupangiu, 2017).

The Credit Risk

Credit risk can be defined as borrowers' inability to repay their obligations to banks (Yoshino & Taghizadeh-Hesary, 2019). Poor credit risk management leads to increasing the level of credit risk and non-performing loans that in turn negatively affect banks' profitability. That is why the focus for banks is to set processes that can allow them to mitigate credit risk (Bouteille & Coogan-Pushner, 2021).

The Importance of Corporate Credit Risk Assessment

The credit risk assessment is a process applied in all banks to evaluate the quality of credit applications and to decide whether a borrower is eligible to get a credit facility to mitigate the credit risk (Richard et al., 2019). Many researchers investigated corporate credit risk assessment and its importance in the banking sector. Arora and Kaur (2020) highlighted the importance of credit risk assessment for banks to make wise decisions and to avoid the occurrence of financial losses. Golbayani et al. (2020) and Kalimashi et al. (2020) emphasized the importance of credit risk assessment in banks, as the impact of companies' failure to repay their debts does not only affect the banks' profitability but also the country's entire economy. Other research studies have focused on the importance of credit risk assessment due to the increased level of loan default after the financial crisis, in addition to the increased capital requirements for banks to absorb potential credit losses (Munangi & Bongani, 2020; Noomen & Abbes, 2018).

Determinant Factors of Corporate Creditworthiness

Many previous studies have investigated the determinants that have a significant impact on the creditworthiness of corporate clients. Factors can be divided into two groups: financial factors and non-financial factors.

Financial Factors

Financial factors focus on the analysis of companies' financial statements such as the balance sheet, the income statement, and the cash flow statement (Gorgijevska & Gorgieva-Trajkovska, 2019). Yoshino and Taghizadeh-Hesary (2019) confirmed the importance of financial indicators for SMEs, especially the net income, short-term assets, liquidity, and capital. Similar to Yoshino and Taghizadeh-Hesary (2019), Yahaya and Ebrahim (2016) also confirmed the importance of the financial indicators in the assessment of SMEs companies in Malaysia, specifically the profitability ratio, the leverage ratio, the liquidity ratio, the activity ratio, and the investment ratio. The same results were found by Gupta et al. (2021) and Khemakhem and Boujelbene (2018).

Ebrahim (2019) examined the factors that have an impact on the creditworthiness of customers in the banking sector of the Kingdom of Bahrain. The study revealed that quantitative factors have the most significant impact on customers' creditworthiness compared to qualitative factors as judged by credit risk assessors. Chodnicka-Jaworska (2021) found that leverage ratios such as the debt-to-equity ratio, the long-term debt-to-capital ratio, and the net debt-to-EBITDA ratio have the most significant impact on the creditworthiness of non-financial corporate clients where the debt-to-equity ratio is the most important factor.

Non-Financial Factors

The non-financial factors that are considered in credit risk assessment focus on the qualitative characteristics of companies such as the management, and the scope of business (Gorgijevska & Gorgieva-Trajkovska, 2019). Antoine et al. (2021) examined the factors that have an impact on banks' decisions to grant loans to SMEs in Congo. The study found that the main six factors that have an impact on the creditworthiness of SMEs are the submission of all information required by the bank, the capacity to present a mortgage guarantee, having a credit facility from a bank, having a business banking account, the registration of the company in the commerce chamber, and having a profitable investment during the last 12 months.

Imaduddin and Sharofiddin (2021) studied the factors that affect the credit assessment of corporate clients in Islamic banks in Indonesia. The study found that as judged by credit assessors of Indonesian Islamic banks, the 5Cs of credit (character, capital, condition, collateral, and capacity) have important weight when approving a credit application where the fixed assets collateral and capacity of borrowers are the most important factors. The study also found that COVID-19 has an impact on the creditworthiness of corporate clients and negatively impacted their capacity for repayment. Borish (2020) proved that there is a positive relationship between the size of the company and the company's ability to have access to capital. The study elucidated that there is a diverse range of reasons why large companies have more access to credit than SMEs including but not limited to their solid financial position, the presence of fixed assets that can be pledged as collateral to cover the debt amount, higher levels of transparency and disclosure of information and market power.

Methods and Materials

This study used the qualitative research method since the purpose of the research was to determine what are the financial and non-financial factors that have a significant impact on the creditworthiness of corporate clients from the point of view of credit assessors. Based on obtained results, the study compared the difference between large companies and SMEs in terms of the factors that affect their creditworthiness. The research was a case study of corporate creditworthiness assessment based on the experience of credit risk assessors in the Egyptian banking sector.

The Target Population and Sampling Design

This study targeted two different populations; the large corporate credit risk assessors and SME credit risk assessors who are working in the Egyptian banking sector. There were participants from each population. The purposive sampling technique was used since what matters is the selection of a sample of participants who were able to provide in-depth information that can help in reaching the objective of the study. The sample from the population was five interviewees from large companies' credit risk assessors and three interviewees from SMEs' credit risk assessors. According to the Central Bank of Egypt (CBE; 2017), an SME is defined as a business with less than 200 employees whose annual sales turnover does not exceed EGP 200,000,000. A large corporation is defined as a business with more than 200 employees and whose annual sales turnover exceeds EGP 200,000,000.

Data Collection

To collect data, an interview was conducted with the credit risk assessors either through face-to-face meetings or through Zoom meetings based on the preferences of participants. Potential participants were contacted through the professional platform Linked In and referrals from those who agreed to participate in the study. Data were also collected through the researcher's observations and notes taken during the interview.

Instrumentation

The instrument of the data collection was a semi-structured interview that is designed by the researcher and approved by the dissertation committee. The same interview questions were asked of large companies and SMEs credit risk assessors. Each sample of participants was studied separately, then the responses of large companies' credit risk assessors were explored with SMEs' credit risk assessors to see differences between the financial and non-financial factors that had an impact on the creditworthiness of both segments of companies. Participants were not asked to reveal any confidential information related to them, their institutions, or their clients.

Data Analysis

The data analysis process of this study followed Yin's (2018) five steps of qualitative data analysis. The first step was compiling a database to organize and prepare data for analysis. Data were collected through participants' responses to the interview questions, observations, and notes that were taken during the interview. After collecting data, data were manually transcribed from audio data to text. The second step was disassembling data which consists of breaking down transcribed data into fragmented labels and categories. The third step was reassembling data which consisted of finding patterns and relationships among the categories. Disassembling and reassembling (steps two and three) were done through manual data coding. For this study, data from interviews and notes were coded into themes. After organizing the data, the researcher compared participants' answers and counted the frequency of common answers to find patterns and relationships in the data. For this study, factors that were mentioned by at least two participants were considered important factors in the credit risk assessment of corporate clients.

The next step in the data analysis was the interpretation phase. In this stage, the data were in a narrative way that could help in linking data and explaining the themes in depth. The participants' answers were presented for each group of companies. Then, a comparison of large companies and SMEs' credit risk assessors' answers was conducted to detect similarities and differences between both companies' segments. The last step was drawing conclusions about which financial and non-financial factors had a significant impact on the creditworthiness of corporate clients as judged by credit risk assessors.

Results

For large companies, the credit risk assessors highlighted many important financial and non-financial factors that have a significant impact on the companies' creditworthiness. Concerning the financial factors, credit risk assessors analyze the current ratio, the quick ratio, and the component of the inventory to assess the liquidity of a company. At the level of solvency, credit risk assessors examine the leverage, the gearing ratio, and the debt service coverage ratio. Regarding the profitability of a company, they assess the gross profit margin, the net profit, the operating profit, and the components of income sources. To assess the activity of a company, assessors look at the asset conversion cycle (ACC) ratios. At the level of cash flow analysis, credit risk assessors analyze the cash flow generated from operations, the cash flow from investing sources, and the cash flow generated from financing sources.

Overall, at the level of financial factors, the large companies' credit risk assessors assigned an important weight to profitability and solvency ratios. For them, profitability reflects to what extent the management was capable of managing everything related to the other financial aspects and generating a profit in the end. Concerning solvency, the capacity of repayment is important for the assessors as the bank will be one of the company's lenders. Accordingly, it is important to check if the company's existing and future debts will be honored.

To assess the ownership of a company, they first determine the owners of the company and then assess the level of their involvement in the business as well as their experience in the field. Concerning the management assessment, the factors that matter the most are the experience of the management in the business, the existence of a second line of management, and the vision of the management. Concerning the credit documents that reflect credit behavior, credit risk assessors require financial statements, the commercial register, the journal of incorporation, and the investigation report. In addition, they assess the aggregate position report issued by the CBE, the I-Score, the protesto, and the bankruptcy reports. When structuring the credit facility, credit risk assessors heavily weigh the offered product, the amount, and the tenor of the facility versus the company's needs. Furthermore, they assess the source of repayment, the guarantees offered by the clients, and the disbursement mechanism of the credit facility. In addition to all the beforementioned factors, they highlighted that external factors such as the industry of the company, COVID-19, the devaluation of the local currency, and the competition between banks have a significant impact on the creditworthiness of large companies.

At the level of non-financial factors, the large companies' credit assessors heavily weighed the management and ownership indicators. If the management is strong and has a plan for the company, this will positively affect the overall performance of the company's operations. On the other side, the absence of vision exposes the company to several problems, such as bankruptcy. In addition, ownership shows how interested owners are about the company's business and to what extent they are willing to expand the company's activity.

At the level of SMEs, the credit risk assessors highlighted many important financial and non-financial factors that significantly affect the companies' creditworthiness. Concerning the financial factors, credit risk assessors do not heavily weigh the financial statements presented by companies due to the lack of credibility. However, they consider some ratios extracted from the financial statements to conduct the credit assessment of clients. They analyze the current ratio, the cash flow generated from operations, and the debt service coverage ratio to assess the liquidity and the cash flow of a company. At the level of solvency, credit risk assessors examine the leverage. Regarding the profitability of a company, credit risk assessors assess the return on sales and the operating profit to sales. To assess the activity of a company, credit risk assessors look at the ACC ratios. Overall, the assessment of SMEs is not essentially based on financial factors as the credit assessors exert great effort to verify the correctness of the figures presented in the companies' financial statements.

Concerning the non-financial factors, the credit risk assessors examine the existence of a second line of management, the years of experience in the market, and the trend of injecting fresh funds into the company by the owners to assess the ownership and management of a company. Regarding the credit documents that reflect the credit behavior, the credit risk assessors require many supporting documents to verify the business of the company such as sales proof and contracts with the agencies. They also check the commercial register, the investigation report, the aggregate position report issued by the CBE, the I-Score, the protesto, and the bankruptcy reports. In addition, they assess the track record of the company with other banks. When structuring the credit facility, the credit risk assessors heavily weigh on the offered product and the tenor of the facility versus the company's needs, the guarantees offered by the clients, the source of repayment, and the disbursement mechanism of the credit facility. In addition to the aforementioned factors, the credit risk assessors highlighted that external factors such as the industry of the company, COVID-19 and the CBE instructions to expand granting credit facilities to SMEs have a significant impact on the creditworthiness of SMEs.

Overall, the SMEs credit assessors rely more on the non-financial factors than on the financial factors, especially the documents and the information related to the credit behavior of the clients. When making credit decisions, obtaining sales proof, conducting site visits to the client, and getting more information about how the client deals with customers, suppliers, and other banks are more reliable indicators of the client's activity than the financial statements presented by the client.

For all companies, the creditworthiness assessment is an ongoing process that is applied when initiating a new relationship with a corporate client and for existing clients as well. All corporate clients included in a bank's portfolio are reviewed periodically to ensure that all aforementioned financial and non-financial factors are maintained within the acceptable level that reflects the companies' ability to meet their obligations towards banks. The ongoing monitoring of corporate clients helps in detecting the early warning signs that can negatively affect the creditworthiness of clients and allow banks to make decisions that preserve their rights.

This study revealed some similarities and differences between the credit risk assessment of large companies and SME. The common financial factors between both types of companies are the current ratio, the debt service coverage ratio, the leverage, the net profit, the operating profit, and the ACC ratios. The common non-financial factors between both types of companies are the presence of the second line of business, the assessment of the aggregate position issued by the CBE, the investigation report, the commercial register, the I-Score, the protesto, and the bankruptcy reports, the source of repayment, the offered product, the facility tenor, the disbursement mechanism, and the guarantees. In addition, external factors have an impact on the credit risk assessment of large companies and SMEs.

On the other side, there are differences in the credit risk assessment between SMEs and large companies such as the degree of reliance on the financial statements presented by companies. The study found that the SMEs credit risk assessors do not rely on the financial statements presented by the clients. Accordingly, they do not do a deep analysis of the financial ratios and the cash flow statement of the SMEs companies. SMEs credit risk assessors require many supporting documents to check the activity and the business of the client and weigh heavily on the support and guarantees for structuring the credit facilities. At the level of ownership and management, assessors examine both ownership and management jointly, given that the owner and manager of SMEs are commonly the same person.

In contrast, the credit risk assessors of large companies rely on the financial statement presented by the clients and conduct a deep analysis of the financial ratios and cash flow statements. They heavily weigh the assessment of ownership and management and assess them separately given the nature of the governance of large entities where the management and ownership are separate. Compared to SMEs Credit risk assessors of large companies give less importance to the support and guarantees and the supporting documents that prove the activity and the business of the clients.

Discussion/Implications

The results of the study could bring the attention of credit risk assessors to important financial and non-financial factors they need to consider when assessing the creditworthiness of companies. The focus on important factors could enhance the credit risk assessment process and reduce the non-performing loans and banks' losses. The findings of the study can be used as a prescreening list that can help credit risk assessors to filter good and bad credit applications before doing further analysis. The results of the study could also be used as a reference list to build an internal risk rating model and each bank could assign a weight to each factor based on the risk appetite of the bank.

Other than banks, the findings of the study could be used by large companies and SMEs operating in the Egyptian market to know how banks assess them and what factors they need to enhance and develop to get credit facilities. Furthermore, credit assessors who work in countries other than Egypt can use the findings of this study to compare their practices to the practices of Egyptian credit risk assessors. That can help in sharing experiences across different countries and gaining new knowledge.

Future research could be applied in different countries other than Egypt to show the different criteria used by credit risk assessors in different locations. Future research can select a specific industry and provide a deep analysis of the credit assessment of this industry. Future researchers could also select more than one industry and compare similarities and differences of their credit assessment in the same study. The findings of this study represent a preliminary step to conduct quantitative research to build a risk rating model. The quantitative research could assign weight to each factor in terms of its importance in the credit risk assessment.

Conclusion

This paper presented the important financial and non-financial factors that have a significant impact on the credit risk assessment of corporate creditworthiness in the Egyptian banking sector. The qualitative study distinguished between the credit risk assessment of large companies and SMEs. The findings of the study could serve as a reference for credit risk assessors to focus on important factors. Focusing on them could enhance the quality of the credit risk assessment process and help credit risk assessors in making the right credit decisions. This in turn will lead to reducing non-performing loans and banks' losses.

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