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QUALITATIVE INDICATORS IN INTERNAL RATING SYSTEMS IN BANKS IN BOSNIA AND HERZEGOVINA

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Abstract

This empirical study focused on examining the implementation of rating systems for assessing the creditworthiness of companies in banks in Bosnia and Herzegovina (BiH), with a particular emphasis on the qualitative modules of rating systems. A survey was conducted with 17 banks to determine the frequency of use of rating systems, their structure, and the most important qualitative indicators in their assessment. The research results indicate that most banks (64.70%) use rating systems, with dominant systems incorporating both quantitative and qualitative modules, as 81.82% of banks rely on this approach. According to the banks, the most important qualitative indicators are management quality and the company's market position. Regarding the influence of qualitative rating on the final rating score, it was found that it ranges from 40-50% in 2 banks, from 30-40% in 3 banks, from 20-30% in 2 banks, and from 10-20% in 2 banks. In 2 banks, the qualitative module has no impact on the credit rating score. Banks are recommended to implement standardized rating systems and further develop qualitative modules within rating systems. Future research could focus on the impact of using rating systems on bank performance, as well as analyzing the relationship between the weight of qualitative modules in rating systems and companies revenue levels.

Keywords: Banks, internal rating systems, qualitative indicators, company ratings

INTRODUCTION

According to the principles of credit risk management outlined in the Basel Accord, the internal rating approach is one of the methods of calculating weighted risk assets. The Basel Accord encourages the development of internal rating systems in banks as their implementation minimizes credit risk and reduces subjectivity in decision-making, thus enhancing banks' business performance. Internal rating systems enable credit decisions to be made in the credit process for each borrower individually, define risk categorization and provisions for loans, and facilitate early detection of problematic loans. The modern method of analyzing the creditworthiness of companies using internal rating systems is a complex process of calculating indicators that determine the financial strength of the client while also considering non-financial indicators such as management quality, customer satisfaction, employee motivation and loyalty, innovation, and so forth. This approach is holistic, analyzing both financial and non-financial business indicators, which are essentially interconnected and can only provide adequate creditworthiness decisions, or rating assessments, when observed and analyzed together.

The aim of this paper is to:

• Introduce the concept and areas of application of internal rating systems;

• Explain what qualitative indicators are and the role of the qualitative module within the rating system;

• Review the application of internal rating systems in banking in EU countries;

• Present the results of the study on the application of internal rating systems in banks in Bosnia and Herzegovina, with a specific focus on the impact of the qualitative module on the final rating assessment;

• Identify the non-financial indicators used within the qualitative module of banks' rating systems in Bosnia and Herzegovina.

CONCEPTUAL DEFINITION AND APPLICATION OF RATING SYSTEMS

The modern approach to analysis using rating systems, alongside financial indicators, also considers non-financial indicators such as management quality, accounting quality, collateral value and marketability, client's regularity in meeting previous obligations, their market position, and such, which was not a practice in traditional financial analysis methods. When assessing the creditworthiness of loan applicants, both their quantitative and qualitative characteristics are considered. The creditworthiness analysis process for potential loan applicants results in defining the client's rating. Ratings are denoted using alphabetical or numerical symbols or their combination (for example, BB, AA, or 5+). These rating assessments indicate the risk of granting credit to potential borrowers, that is the likelihood of delay in loan repayment by the borrower. The determined credit rating of a potential borrower determines whether the bank will approve the requested loan, in what amount, and under which conditions.

In banking literature, we encounter various definitions of credit rating. It is highlighted as an assessment of a company's creditworthiness summarized in a single grade or number. It provides an assessment of the current and future ability of a company to fully and timely meet its obligations (payments and interests) (Bruckner et al, 2003, p.27). Credit rating evaluates creditworthiness and thus the ability of a company to meet its financial obligations. Defined in this way, a credit rating is an evaluation that describes the borrower's ability to meet its payment obligations in the future (Osmanagić Bedenik, 2004, p. 60). Additionally, it can be said that credit rating is a standardized, objective, incremental, and current assessment of a company's creditworthiness (Füser, 2001, p. 37). Credit rating represents a research framework that enables systematic and up-to-date assessment of a company's capacity and readiness to pay its financial obligations on time. Recently, the concept of credit rating has expanded to include an assessment of recovery potential in case of insolvency (Đuričin & Lončar based on Buble et al, 2010, p. 474).

Rating assessment is a modern instrument for evaluating creditworthiness and encompasses a comprehensive evaluation of a company. For a company, the rating means that a financial institution has assigned a grade describing a range of its financial and business risks, specifically *(*Adapted from Schumacher, 2004, pp. 6-7):

- The ability to generate revenue to cover loans and other financial needs;
- The likelihood of unforeseen circumstances reducing capital coverage and leading to illiquidity;
- The quality of revenue, that is the level of revenue and cash flow from the company's core operations, not from one-time or non-renewable sources;
- The quality of timely availability of company data, including the availability of audited financial statements, applied accounting standards, and their compliance;
- The degree of external financing and the impact of demand fluctuations on profitability and cash flow;
- Financial flexibility regarding access to capital markets to obtain additional funds;
- The strength and ability of management to respond efficiently to changing conditions and utilize resources, as well as the degree of risk readiness versus conservatism;
- The competitive position in the market and its prospects;
- The country risk where the company operates and the impact of that risk on the company's debt servicing capacity, including transfer risk if the company is headquartered in another country and may not be able to obtain foreign currency to meet obligations.

A typical rating system assigns ratings to individual clients and individual credits. The ultimate goal of the final rating is to determine the risk of loss in a credit transaction (Crouhy et al, 2000, p. 270). Borrowers with lower creditworthiness ratings must anticipate higher financing costs than companies with better creditworthiness, as the level of required reserves decreases with increasing creditworthiness. Rating serves as a measure of creditworthiness, an assessment by which a bank classifies the risk level for individual clients.

When it comes to the application of rating models, it is important to emphasize that they are used for multiple purposes. Concisely defined areas of rating system application or financial models include (Couette et al, 1998, p. 104):

1. Credit Approval: Models are used independently or together with individual assessment systems in approving consumer loans. Recently, such models are used for approving loans to small businesses as well as for the first mortgage loan.
2. Credit Rating Determination: Quantitative models are used to derive bond ratings.
3. Credit Pricing: Credit risk models can be used to determine the risk premium that needs to be charged as a measure of the probability and size of loss.
4. Early Financial Warnings: Credit models are used for early detection of potential portfolio problems to take early corrective measures.
5. Portfolio Construction: Credit models can be used to select property from the total assets to construct a portfolio acceptable to investors or to achieve the minimum credit quality needed to realize the desired credit rating.
6. Debt Collection Strategies: Credit models can be used to define the best debt monitoring and collection strategies. They can show the most favorable approach to each client.

We distinguish between two types of ratings: external ratings, developed by independent rating agencies such as Moody's Investors Service, Standard & Poor's Corporation, Fitch INCA, and internal ratings developed by banks for internal use and assessment of their clients' creditworthiness. Many banks use both external and internal rating systems to double-check the creditworthiness of loan applicants.

Regarding the areas of application of internal rating systems, according to Deventer and Ouram (Ong, 2002, p. 393) they are used for the following purposes: a) acceptance or rejection of new transactions, b) credit quality monitoring, c) resource allocation, d) adequacy of loan loss provisions, and e) capital adequacy. Also, the authors mentioned that recent tools enable the use of credit ratings for important purposes such as a) determining credit pricing, b) value assessment: new credit rating technologies allow banks to better assess the market value of new and old transactions, and c) risk protection.

Rating systems in most banks have both a quantitative and a qualitative component, that is a quantitative and a qualitative module, which together provide the final rating assessment of a company. It is desirable for rating systems to evaluate both quantitative factors (annual financial reports) and qualitative factors (for example management quality, customer and supplier relationships, and so on). The weighting of these factors in individual rating systems varies. Quantitative factors are usually more prevalent than qualitative ones, and this depends on the size of the company and the duration of its business operations.

In the following sections of the paper, we will present the most important qualitative business indicators, as well as their role and significance in banks' internal rating systems.

QUALITATIVE BUSINESS INDICATORS AND THEIR ROLE IN INTERNAL BANK RATING SYSTEMS

Credit decisions made by banks are not solely based on quantitative data; they also consider qualitative criteria, often referred to as "soft information." Banks reserve the right to reject a loan application based on such qualitative information, which plays a crucial role in assessing entrepreneurial and management capabilities. Qualitative performance indicators, such as the track record of the entrepreneur, the company's competitive position in the market, or other intangible factors, are essential to supplement traditional practices for evaluating SME loan applications. This is because qualitative indicators take into account broader aspects of business performance that may provide additional insights beyond a purely quantitative assessment, which could unfairly penalize SME loan applicants (Centre for Strategy & Evaluation Services, 2013, p. 9).

Many rating systems incorporate qualitative sections to include the intangible aspects of a company's operations. These qualitative assessments are used to modify or adjust the existing risk level calculated based on quantitative measures. Typical qualitative measures are: a) Management quality; b) Industry characteristics; c) Market position and business/regulatory environment; d) Financial flexibility; e) Required reports; f) Organizational structure and relationships; g) Structured asset protection; h) Domicile (Ong, 2002, p. 474).

A successful evaluation of a company's creditworthiness requires analyzing non-financial business metrics. It is necessary to determine whether the company has a defined vision, mission, and strategy, whether its strategic goals are aligned with operational objectives, what the company's strategic plan entails, and how its business processes operate. An analysis of management quality, product or service quality, customer, supplier, and employee satisfaction is necessary. Banks also evaluate a company's credit history (promptness in meeting obligations to financial institutions) during the assessment of its creditworthiness. The data regarding the company's adherence to deadlines when fulfilling obligations to third parties such as suppliers and employees, as well as its position in the community, is also significant.

Additionally, attention must be paid to highly negative indicators in a company's operations, such as underutilization of significant production capacity, negative assessments in audit reports, account freezes, and so on. These are signs that the company's business and survival are seriously threatened, and such warning signs can be introduced into rating systems as "knock-out criteria," leading to the assignment of the lowest rating score and automatic rejection of the credit request.

Table 1 provides an example questionnaire that can be used to collect non-financial data about a company's operations as part of evaluating its creditworthiness.

Table 1. Examples of qualitative items in credit analysis questionnaires

Corporate structure - Date of incorporation (or significant acquisition/ merger) - Type of firm - Group members, intensity of relationship with the parent/ subsidiary
Information on the company's business - Markets in which the company operates and their position in the business life-cycle - Positions vis a vis competitors and their competitive strength - Nature of the competitive advantages (cost, differentiation/ distinctiveness of products, quality/ innovation/technology, dominant/ defensible). - Years the company has operated in the actual core business - Growth forecast - Quality of perception in the market
Strategy - Strategic plans - Business plan - In case a business plan has been developed, the stage of strategy implementation - Proportion of assets/ investments not strategically linked to the company's business - Extraordinary transactions (revaluations, mergers, divisions, transfers of business divisions, demerger of business) and their objective
Quality of management - Degree of involvement in the ownership and management of the company - The overall assessment of management's knowledge, experience, qualifications and competence (in relation to competitors) - Is the company's future tied to key figures? - Presence of a dominant entrepreneur or investor (or a co-ordinated and cohesive group of investors) that influence strategies and the company's critical choices
Other risks - Risks related to commercial activity. - Geographical focus (local/ regional, domestic, within Europe, the OECD and non-OECD/ emerging markets). - Level of business diversification (a single product/ service, more products, services, markets) - Liquidity of inventories

- Quality of the client base - Share of total; revenues generated by the three/ five main customers of the company - Exclusivity or prevalence with some company suppliers - Legal and/ or environmental risks - Reserves against professional risks, board members' responsibilities, auditors (or equivalent insurance)
Sustainability of financial position - Reimbursements in the next 12, 18 months, 3 years, concentration of significant debt maturities. - Off-balance sheet positions and motivations (coverage, management, speculation, other). - Sustainability of critical deadlines with internal/ external sources and contingency plans - Liquidity risk, potential loss in receivables, of one or more major customers, potential need to accelerate the payment of the most important suppliers).
Quality of information provided by the company to the bank, timing of documentation released and general quality of relationship. - Availability of plausible financial projections - Information submitted on company's results and projections - Considerations released by auditors on the quality of budgetary information - Length of the relationship, past litigation, type of relationship (privileged/strategic/ tactical/opportunistic) - Managerial attention - Negative signals in the relationship history

Source: CSES Centre for Strategy & Evaluation Services, The European Commission

Evaluation of Market Practices and Policies on SME Rating: Final report

PP. 20-21, Based on De Laurentis, et. al., p.88

The impact of qualitative indicators on the assessment accuracy of a company's creditworthiness has been the subject of numerous studies, some of which we will outline here.

Altman et al. discovered that incorporating management- and employee-related variables into Small and Medium-sized Enterprises (SMEs) prediction models enhances their predictive capability. Apart from conventional financial ratios and payment behavior variables, their findings suggest that including changes in management, employee turnover, and mean employee tenure significantly enhances the model's predictive accuracy (Altman et al, 2022, p. 2).

Grunert et al. stress the significance of internal rating models, anticipating their increased relevance due to their potential application in determining regulatory capital adequacy and banks' growing emphasis on the risk-return profile in commercial lending. Nevertheless, the authors note that while the importance of financial factors in internal credit ratings is widely acknowledged, the role of non-financial factors remains unclear. By analyzing credit file data from four major German banks, they provide evidence that the combined use of financial and non-financial factors results in more precise predictions of future default events compared to using each factor individually (Grunert, 2005, p. 509).

Kohv and Lukason argued that the joint use of financial and non-financial factors significantly enhances the accuracy of loan-default prediction (Kohv& Lukason, 2021, p.13).

Svítil, in his study, presents research results indicating that in the rating tools employed by three banks in the German-speaking region, qualitative factors (soft-facts) carry less weight (ranging from 30% to 50%) compared to quantitative (hard-facts) factors. Regarding the variable weighting of both factors, the weight of the SF (soft-facts) factor decreases as the rated enterprise's size increases. Two categories of qualitative indicators (soft-facts) are consistently present in all evaluated rating systems: Quality of company Management and/or Strategy and Market where the company operates. The weights range from 12.5% to 30% for Management and from 15% to 31% for Market (Svítil, 2018, p. 39).

Research conducted by the European Commission revealed that most banks attribute high or very high importance to an SME's management quality as a rating input factor. The next two most crucial qualitative factors, though at a considerable distance from management quality, are an SME's market situation and its legal form. Within a rating system, the significance of qualitative factors typically varies based on the enterprise's size and the loan amount. Generally, qualitative factors exert more influence on the rating for larger SMEs or loans (European Commission: Enterprise and Industry, 2005, pp. 14-15).

It is crucial to note that evaluating non-financial data poses challenges as there is no official measurement scale for them. Another significant challenge arises during the collection of non-financial data, specifically regarding the availability of qualitative data: whether these data are recorded and tracked at the company level. Moreover, the systematic collection of non-financial data may be questionable, affecting their quality and credibility. Furthermore, in the integrated approach to assessing a company's creditworthiness or assigning a rating score, there is a challenge in appropriately integrating quantitative and qualitative data, that is, determining the degree of influence of individual data on the final assessment of a company's creditworthiness. According to literature addressing this issue, it can be concluded that the level of influence of these factors is flexible and varies depending on the company's sales revenue: the higher the sales revenue, the more significant the impact of quantitative data, and the lesser impact of qualitative indicators, and vice versa.

A REVIEW OF THE APPLICATION OF INTERNAL RATING SYSTEMS IN BANKS IN EU COUNTRIES

The study conducted by CSES (Center for Strategy and Service Evaluation) titled "Evaluation of Market Practices and Policies on SME Rating" examined the implementation of rating models in banks across EU countries and associated members. The rating systems used by banks in the EU consist of two main types of factors: quantitative and qualitative factors, which are usually separated into quantitative and qualitative modules, yielding separate results. Combining these results provides the company's rating. Rating systems can contain a large number of quantitative data. For example, De Laurentis, Maino, and Molteni mention 30 financial indicators that can be included in a rating. The first challenge identified in defining the components of a rating system is deciding which indicators are relevant and useful for conducting a company's business analysis. The second challenge lies in the quality or existence of necessary quantitative data for small and medium enterprises. For instance, in the EU, most SMEs are not required to prepare financial statements, and those that do often have abbreviated data in their financial reports. Qualitative ratings typically account for 20-40% of the company's final rating, depending on the type of bank and client. For banks that grant loans to newly established businesses without a long operating history, the final rating for these companies is determined by 60-70% qualitative and 30-40% quantitative ratings. One challenge in collecting qualitative data is that these data are exceptionally numerous. A review of qualitative data collected within the San Paolo Group identified more than 250 questions related to the economy, competition, and credit analysis. The study concludes that there has been significant reliance on rating results in the decision-making process. A study conducted by Banca d'Italia in 2007 on a sample of 300 banks found that approximately 50% of medium and large banks do not allow changes in rating results, while only 20% of small banks have the same stance, and the greatest authority to change ratings is given to branch managers. Since banks require a large database with sufficient time series for developing rating systems, some banks have combined their databases. For example, public banks in Germany, within their association Budesverband Öffentlicher Banken Deutschlands, decided to merge their databases to develop a rating that they could share, as individual banks did not have enough data. Additionally, developing ratings would be too expensive for each bank individually. In Germany, a main scale was created to enable comparisons of a bank's or savings institution's rating with others (Centre for Strategy & Evaluation Services*,* The European Commission, 2013).

Furthermore, Fleischhacker and Kirchberg conducted research on the use of ratings to determine the creditworthiness of small and medium enterprises in banks in Austria, with a sample of 103 respondents. This study showed that internal rating systems of banks mostly consist of two independent rating models – quantitative and qualitative. The quantitative rating determines the company's economic position through balance sheet analysis and key performance indicators. As a complement to this assessment based on historical data, the qualitative rating aims to improve the predictability of a client's future business performance. On average, the weight of the quantitative rating in the final rating score is 69.60%, while the qualitative rating has an average weight of 30.40%. Interestingly, 77.70% of banks include "private" information about the company owner in the quantitative rating when assessing small and medium enterprises. This includes considering the owner's asset situation, debts, additional incomes, and so forth (Fleischhacker & Kirchberg, 2007).

OBJECTIVE AND METHODOLOGY

The aim of the research was to determine the extent to which banks in BiH employ rating systems for assessing the creditworthiness of corporate entities and the ratio at which these rating systems evaluate qualitative/non-financial indicators of company performance. Additionally, the study aimed to identify which qualitative indicators are most prevalent in banks' rating systems.

Within the framework of empirical research, a survey was conducted among banks operating in Bosnia and Herzegovina (BiH). Data were collected through a questionnaire survey, which was completed by 17 banks. The sample of banks was selected using purposive sampling, as follows. Survey questionnaires were sent via email, along with a request for interviews with relevant employees, to all banks operating in Bosnia and Herzegovina. The author of the article personally interviewed 14 bankers from different banks, while 3 banks provided completed questionnaires via email. Bank employees involved in decision-making processes related to corporate lending in banks in Bosnia and Herzegovina (directors of branches/regions, risk managers, business relations managers) were surveyed. The questionnaire was developed by the author of the study. The research findings on these aspects are presented below.

ANALYSIS AND FINDINGS

Out of the 17 surveyed banks, 11 (64.70%) use rating systems to assess the creditworthiness of corporate entities, while 6 (35.30%) banks do not use rating systems.

It is important to note that only two banks have rating systems specifically developed for the BiH market. In the other banks, rating systems are developed for banking groups in their parent countries (5 banks) or for the banks in Central and Eastern European (4 banks).

Six banks use different rating systems to assess the creditworthiness of small and medium enterprises versus large enterprises, while five banks use the same rating systems to evaluate the creditworthiness of these entities. Rating systems comprising both quantitative and qualitative modules dominate and are used by 9 (81.82%) banks, while the remaining 2 (18.18%) banks use rating systems containing only quantitative modules.

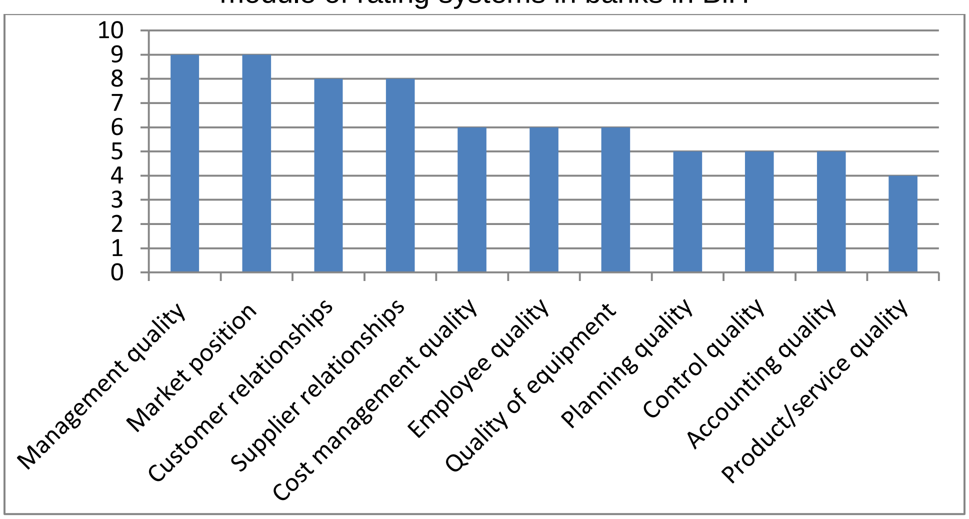
The final rating of a company is a combination of quantitative and qualitative ratings. The influence of the quantitative rating varies: it entirely determines the rating in two banks, has an impact ranging from 80% to 90% in two banks, from 70% to 80% in two banks, from 60% to 70% in three banks, and the lowest impact of 50-60% in two banks.

In five banks, the revenue of the company affects the influence of the quantitative rating, with higher revenue increasing the impact of the quantitative rating. Six banks stated that the revenue of the company does not affect the weight of the quantitative module in the final rating score.

Banks primarily gather data on qualitative indicators of company performance through discussions with company management, as reported by 9 banks. Three banks collect these data through a standard questionnaire filled out by the company, while one bank relies on its own assessment or external data sources (Internet, publications, chamber of commerce reports, and such.). Multiple answers were possible for this question.

The qualitative module of credit rating in banks mostly includes 7 or more non-financial indicators (4 banks), followed by 4 indicators (3 banks), while one bank each has 2, 3, or 5 qualitative indicators. As the research shows, banks most commonly assess the following non-financial indicators within the qualitative module: 9 banks assess management quality and the company's market position, 8 banks evaluate customer and supplier relationships, 6 banks assess cost management quality, employee quality/expertise/education, and modernity/quality of equipment and production capacity, 5 banks consider planning quality, control quality, and accounting function quality, while 4 banks evaluate product/service quality. Multiple answers were possible for this question as well.

Figure 1: Assessment of non-financial indicators in the qualitative module of rating systems in banks in BiH



According to surveyed bankers, the most significant non-financial indicators within the qualitative module of rating systems are: company management quality (9 banks), followed by the company market position (6 banks). Two banks consider planning quality, accounting quality, and customer relationships to be essential. One bank each believes that collaboration with the bank, cost management quality, product/service quality, company account freeze history, and industry-specific affiliation are the most crucial indicators. Multiple answers were possible for this question.

When assessing company management quality, banks primarily consider their market knowledge (10 banks), followed by the clarity of company vision and mission (8 banks). Furthermore, 7 banks evaluate management education and the quality/completeness of information provided by management to banks. A slightly smaller number of banks evaluate management ethics (5), management expertise/proficiency (5), and management business plans (4).

The influence of qualitative rating on the final rating score is as follows: it ranges from 40-50% in 2 banks, from 30-40% in 3 banks, from 20-30% in 2 banks, and from 10-20% in 2 banks. In 2 banks, the qualitative module has no influence on the credit rating score.

In most banks (72.73% or 8 banks), corrections to the final company rating are allowed, while this is not permitted in 27.27% of banks.

CONCLUSION

Incorporating non-financial indicators in assessing the creditworthiness of companies is crucial for making an adequate assessment of the level of credit risk banks are undertaking. These indicators provide a deeper insight into the business performance of companies, and only through a holistic approach, which involves evaluating integrated quantitative and qualitative business factors or rating systems composed of quantitative and qualitative modules, can lead to such company rating assessments, or its creditworthiness, that will minimize banks' credit risk This study emphasizes the importance of using rating systems to assess the creditworthiness of companies in banks, while previous research results clearly indicate the increased predictive accuracy of rating systems that integrate quantitative and qualitative modules. The research conducted on a sample of 17 banks in BiH shows that the majority of banks use rating systems, with quantitative and qualitative modules often combined to make the final assessment. The most significant research findings are as follows:

- Application of rating systems: Most banks (64.70%) use rating systems to assess the creditworthiness of legal entities. This indicates the widespread application of a standardized approach to assessing credit risk in the banking sector in BiH.

- Combination of quantitative and qualitative modules: The dominance of rating systems that include qualitative indicators in 81.82% of banks emphasizes the importance of not only financial but also non-financial factors in assessing creditworthiness.
- Non-financial indicators: Qualitative modules of rating systems encompass a wide range of non-financial indicators such as management quality, customer and supplier relationships, cost management, and others. This clearly shows that banks significantly consider qualitative aspects of business in the risk assessment process.
- The most important non-financial indicators identified are: assessment of company management quality and the company's market position.
- Data collection approach: Banks commonly collect data on qualitative indicators through discussions with company management, indicating the importance of direct insight into business processes and strategies.
- Rating corrections: In most banks (72.73%), corrections to the final company rating are allowed, which, on one hand, allows flexibility for banks in approving credit requests. However, rating corrections open space for subjective influence on risk assessment, which rating systems aim to minimize.

RECOMMENDATIONS

Recommendations related to the use of rating systems in the banking sector include:

- Use of rating systems: Banks are recommended to establish standardized rating systems that include both quantitative and qualitative indicators, ensuring a more objective assessment of company creditworthiness.
- Collection of qualitative data: Banks are advised to continue collecting qualitative performance indicators through discussions with management and standard questionnaires to gain a comprehensive view of the business situation. Additionally, these data should be verified and supplemented using other data sources such as the Internet, chamber of commerce data, company credit history, account freeze history, and so forth.
- Continued development of qualitative modules: It is essential to continue developing qualitative modules of rating systems, especially regarding the assessment of management quality, market position, customer and supplier relationships, and product/service quality.

LIMITATIONS AND FURTHER STUDIES

One key limitation of this study is that it was conducted on a relatively small sample of banks operating in one country, and it would be desirable to conduct a more extensive study on a larger sample and on banks operating in EU countries. Taking above into consideration, suggestions for future research and the way forward could be as follows:

- Rating system efficiency: Research can explore the efficiency of applied rating systems in predicting credit risk and company performance, as well as their correlation with bank business results.
- Relationship between qualitative module weights in rating systems and company revenue levels: A deeper analysis of the optimal impact of qualitative indicators on the final company rating, considering the achieved revenue levels.
- A longitudinal study tracking the evolution of qualitative rating influence on final ratings over period of several years could provide insights into the stability and predictive power of qualitative assessments in credit risk evaluation

These studies could provide valuable insights to banks and the academic community, contributing to a better understanding of the process of assessing company creditworthiness and enhancing banking practices in BiH.

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