

## Methodology of Bank Relationship Research and Banking Risks. First Part

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**Abstract.** *Research of risks is neither easy nor very precise in implementation. Observation, data collection, access to sources are difficult and put the researcher into a number of problems, including the choice of investigative methods, whether qualitative, quantitative or qualitative-quantitative. A good understanding of risk research methods allows them to be integrated into a model of banking relationship research and specific risks. Our choice, considering the potentials and limitations of qualitative and quantitative methods, is for a quantitative-qualitative method. As a result, we selected the Onicescu method and an econometric model corresponding to the aforementioned vision for completing our approach.*

**Keywords:** banking relationship; banking risks; method; econometric model.

**JEL classification:** E32, G14.

### 1. Introduction

From a methodological point of view, the banking relationship and banking risks can be researched on the basis of both quantitative methods and quantitative-qualitative methods. The choice for one method or another is dependent on the research objective. For example, researching the financial potential of a credit applicant requires the requirement to investigate the competitiveness, profitability and productivity of the enterprise requesting credit. Competitiveness, profitability and productivity are expressed through quantitative indicators using hard information. The option for a quantitative-qualitative method requires the researcher to take into account the potentials and limits of quantitative and qualitative methods. The quantitative and qualitative combination suggests to the researcher the idea of integrating into the case-law two epistemological directions: positivist and constructivist.

### 2. Onicescu Method

Constantinescu, et al. (2008, pp. 257-259) recommends this method for addressing decisions in certainty. Therefore, research into banking or banking risks requires an investigation of the two short-term issues.

Onicescu method is conceived in two variants: with criteria of appreciation which present identical coefficients of importance and appreciation criteria having different coefficients of significance. In both variants the information base is the "matrix of economic consequences". The economic consequences can refer to the size, age, etc. of the enterprise requesting loans.

In order to apply the Onicescu method, the bank must have hard information about the borrower. This information may be identified or may be calculated on the basis of the use of the borrowing balance sheet of the borrowing enterprise.

Applying the method allows the bank a knowledge, of course, in quantitative terms, of the borrower's quality. The quality of the borrower can be presented in the form of the "borrowing level" indicator. Based on this indicator, a pyramid of borrowers' quality is formed in which borrowers are grouped into different categories. A category

indicates the ability to repay the credit. For example, consider categories A, B, C, D and E:

- A. High credit repayment capacity;
- B. High credit repayment capacity;
- C. Average credit repayment capacity;
- D. Relatively low credit repayment capacity;
- E. Very low credit repayment capacity;

Borrowers in categories A and B may be considered honorable. They are borrowed with the maximum financial potential and the lowest risk potential. This category includes borrowers with the most important indicators.

Borrowers in category C will be considered worthy of respect. They are borrowed with medium financial potential and with a certain potential for default. This category includes borrowers with average indicators of importance.

Borrowers in categories D and E are dangerous, can damage the bank. Borrowers in this category are the basis of the pyramid, have the lowest financial potential and the greatest potential risk. They are borrowers with the smallest performance indicators.

The hierarchy of borrowers, according to Onicescu method, allows the client's adviser to offer credit agreements with quantifiable and differentiated clauses (guarantees, reimbursement terms, etc.).

### **3. The econometric model, a mix of quantitative and qualitative research**

Choosing a quantitative-quality research mix facilitates a better description of processes and events. On this basis, the researcher identifies a wide range of factors (favorable and unfavorable) and explains the links between the variables, comparing the numerical data and the literary texts or the answers to the structured questionnaires. From the quantitative point of view, the researcher creates an appropriate framework for accurately checking the hypotheses formulated. In a positivist epistemology an impartial investigation is possible and, to the extent that there is compliance with human behaviors, hypothesis testing methods, explanations and causal patterns are appropriate to understand bank risks. According to the idea of constructivism, derived from hypothetical and deductive qualitative methods, the researcher creates data and then analyzes them in interdependence with the respondents. In this way, the discovered realities are the result of a process of interaction between the respondents, the environment and the researcher.

Studies addressing the linkage between internal governance mechanisms and banking risks focus on two aspects:

- ownership concentration (Haw, et al., 2010) and Board Management Features (Pathan, 2009);

- banking relationship and significant risks (Uchida, et al., 2012).

Investigating any aspect of the two mentioned involves an investigation based on an econometric model. This model allows a quantitative and qualitative research, a complete research, capable of rebalancing the impact of governance or the banking relationship on a type of banking risk. Therefore, the econometric model is a quantitative-qualitative research mix.

The econometric model presents three variables:

- the dependent variable (credit risk, liquidity risk ...);
- independent variables (the size of the borrowed enterprise, the size of the board of directors ...);
- control variables (refers to the legal form of the enterprise: SA or SRL).

The quantitative-qualitative character of the econometric model is given, in particular, by the type of information used to estimate the independent variables. Some

independent variables are estimated based on hard information, while other variables are characterized by soft information. Godbillon-Camus and Godlewski (2007) note that M. A. Petersen (2004) is the first researcher to promote the terms of hard information and soft information.

A good understanding of the features of hard and soft information requires the analysis of this information according to its size: nature, mode of collection and transmission. In summary, the characteristics of hard and soft information are shown in Chart 3.4.

**Chart 1. Features of hard and soft information**

Type of information	Hard	Soft
<b>Features</b>		
<b>Nature of information</b>	<ul style="list-style-type: none"> <li>- Quantitative information that is easy to collect and store.</li> <li>- Financial information based on accounting data (balance sheet, financial statements, etc.).</li> <li>- Objective evaluation of client counselors.</li> </ul>	<ul style="list-style-type: none"> <li>- Qualitative information difficult to collect.</li> <li>- Non-financial information based on reports, opinions, interpretations about the quality of management and the reputation of borrowers.</li> </ul>
<b>Way of collecting</b>	<ul style="list-style-type: none"> <li>- Impersonal and independent collection of the information production context.</li> <li>- Financial information that can be collected from accounting and financial documents.</li> </ul>	<ul style="list-style-type: none"> <li>- Personal collection as an attribute of the bank's client advisor.</li> <li>- The best way of collecting through face to face interpersonal communication.</li> </ul>
<b>Transmission mode</b>	<ul style="list-style-type: none"> <li>- Easily transmitted, verified, and compared.</li> </ul>	<ul style="list-style-type: none"> <li>- Difficult to pass, verified only by the customer adviser (who collects it).</li> </ul>

*Source: According to B. Godbillon-Camus și Ch. J. Godlewski (2007)*

Under conditions of using hard and soft information, the bank manages to capitalize on the opportunity of better knowledge of the borrower. This advantage stems from the fact that the bank multiplies its chances of collecting the objective and subjective data inherent in its relationship with the loan. On the other hand, by using hard and soft information, the bank develops the relationship with the borrower and transforms it from a simple transaction into a long-term relationship. Hence the idea that multiplying the links between the bank and the borrower favors the development of long-term interactions. By better knowledge of the borrower, the bank becomes the depository of a significant amount of hard and soft information. The surplus of hard and soft information helps the bank better substantiate credit decisions.

In the case of a combination of hard and soft information, the econometric model provides the bank with new, diverse and accurate information about the borrowers. Against the backdrop of the added value, the bank, while confronted with the opacity of the borrowers, strengthens the risk management device.

#### **4. Conclusions**

In conclusion, from the methodological point of view, the banking relationship and the risks can be researched both on quantitative and qualitative methods as well as on quantitative and qualitative methods. The choice for one method or another is dependent on the research objective. We tend to think that it is right for those researchers who opt for a quantitative-qualitative method taking into account the potentials and limitations of quantitative and qualitative methods. In such a vision, we presented the Onicescu method of working and an econometric model that we consider to be a quantitative-qualitative research mix.

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