Operational Risk Management in a Financial Institution

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Abstract

Risk is a fundamental business factor, mostly because no activity can be profitable without risk. Therefore, any business company is trying to maximize its profits by managing the risk specific to its field of activity and by avoiding or transferring the risk that it does not want to take over. A robust banking strategy should include both bank risk management programs and procedures that aim to minimize the likelihood of these risks and the potential exposure of the bank. This stems from the primary objective of these policies, namely to minimize the additional losses or costs borne by the bank, and the central objective of banking activity is to gain the most profit for shareholders.

Key words: operational risk; financial institution; banking; risk evaluation;
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1. Introduction

The importance of bank management is not only to minimize costs. The permanent concern of the management to minimize exposure to risk has positive effects on the behavior of employees who become more rigorous and more competent in fulfilling their duties; neither should the psychological effect of discouraging fraudulent activities should be neglected.

The existence of prevention and control of financial institution risks programs also contributes to the institution's imposition within the financial community, mostly because these types of programs condition a financial admission and the participation of it in associations or the obtaining of superior ratings from the financial authorities.

However, an effective risk management bank will put its mark on the public image of the bank. Customers, as well as shareholders, want a safe bank. The solidity of a bank attracts depositors, even though deposits are not insured compulsorily.

"In banks, assets change frequently, and portfolios are shifted without the knowledge of debt and equity claimants" (Santomero, 1997, p. 85). Moreover, because bank risks are a source of unforeseen expenses, their proper management can stabilize their income while having the role of a shock absorber. At the same time, the consolidation of the value of bank shares can only be achieved through real communication with the financial markets and the implementation of appropriate banking risk management programs. All banks and financial institutions need to improve their banking risk management understanding and practice in order to manage different product ranges successfully. If the bank risk management process and global management system are effective, then the bank will be successful. Banks are able to effectively handle banking risk by recognizing the strategic function of risk management, by using the analytical and management paradigm to boost efficiencies, by taking accurate steps to adapt performance to danger, and lastly by establishing risk reporting processes to guarantee that investors know the effect of risk management on the value of prohibition.

2. Theoretical background - Conceptual approaches to operational risk

"Operational risk has always had a significant presence in a bank's business, often in connection with lending activities or market operations" (Codirlesu, 2011, p. 32). The exposure of credit institutions to this risk category is on an upward trend, in terms of diversifying and multiplying the number of banking transactions, technological development, financial innovation and generalization of merger and acquisition activities, in a financial market with a higher degree of globalization.

The inclusion of operational risk in the capital requirement of credit institutions has been an essential step in stimulating them to give greater importance to the management mechanisms of operational risk generating events. In the initial vision of the Basel Committee (Basel Committee, 2011), the operational risk was characterized by total potential loss, except the parts assimilated to credit or market risk.

The current approach is more precise and concerns the risk of recording direct or indirect financial losses as a result of (a) erroneous or inadequate internal processes; (b) persons who misbehave; c) systems with deficiencies in execution; (d) undesirable external events. Operational risk is assimilated to legal risk, while strategic and reputational risks are considered distinct categories.

Legal risk is defined as the risk of loss due to both the fines, penalties and sanctions that the credit institution is liable of in the event of failure or defective application of legal or contractual provisions and the fact that the contractual rights and obligations of the credit institution and/or its counterparty are not duly established. Monitoring and eliminating the effects of legal risk implies the existence of effective information systems regarding the legal provisions with a banking incidence and their correct application. Perhaps more than any other field, the banking environment is the subject of highly modified, relatively dissipated legislative provisions, which amplifies the sources of risk.

Strategic risk refers to potential losses associated with inappropriate business strategies or rapid changes in working hypotheses, parameters, goals, or other factors that define the strategy of a credit institution. Therefore, strategic risk depends functionally on the bank's strategic objectives, the directions of action set for achieving these objectives, the resources involved, and the quality of implementation. In practice, this risk category is difficult to assess and is often associated with market risk.

Reputational risk concerns the possibility of significant financial losses in a credit institution as a result of the deterioration of the general public's perception of the bank's ability to effectively fulfill its functions. Often, reputational risk is associated with liquidity risk. Negative information (whether true or not) about a credit institution may trigger a wave of mass withdrawals of deposits, with significant unfavorable effects over the entities' financial stability.

3. Principles of the operational risk management system

The banking industries experience shows that the materialization of operational risk could be so severe that it would shortly lead to insolvency, and the possibilities of the anticipation are relatively limited. Thus, a prudent attitude from credit institutions towards operational vulnerabilities and a pro-active approach are required. According to best practice in the field (Basel Bank Supervisory Committee recommendations), effective operational risk management must comply with four essential principles, structured on ten fundamental requirements.

Developing a framework for operational risk management:

1. The Board of Directors sets out the strategy and principles underpinning operational risk management
2. The Board of Directors shall ensure that the structure of the operational risk framework is subject to an effective and independent audit.
3. Executive management is responsible for implementing policies and procedures.
4. Identifying and assessing risks in activities, products, processes, and systems are appropriate to the risk profile

5. Risk monitoring and reporting to the Board of Directors and Executive Management is prompt.
6. Decision-making for proper operational risk management and the implementation of corrective measures are consistently applied.
7. The contingency plan for the unplanned business is operational.
8. Ensuring that the credit institution has a useful internal framework for operational risk management
9. Regularly assess the Bank's strategy, policy, and procedures
10. The Bank provides relevant information to supervisors and the general public on the quantitative and qualitative aspects of operational risk management.

4. Responsibilities in the operational risk management process

The Board of Directors is responsible for setting and approving the operational risk management strategy and procedures.

Executive Management is responsible for implementing the operational risk management strategy and procedures established by the Board of Directors and ensuring its communication to the staff.

An important activity is the establishment of a system with a limited tolerance for operational risks, which allows the bank to carry out the activity in an appropriate manner.

Table no. 1. Key operational risk indicators

No.	Operational risk factors	Attention limit	Maximum tolerated limit
1	Annual staff turnover	5%	10%
2	Employment of qualified personnel related posts	80%	60%
3	The share of operations canceled in total operations	0.75%	1.5%
4	The average number of days per employee attending training courses	1 day	0.5 days
5	The number of disputes in which the institution has the quality of claim	15%	25%

Source: (First Bank Report, 2018)

In general, the Bank's exposure limit to operational risk events comprises two threshold values for each relevant risk factor, namely a threshold of attention and a maximum acceptable level.

Risk holders have responsibilities in line with (a) identifying the operational risks they face in conducting their current business; (b) timely and accurate reporting of identified operational risk events; (c) preparing and transmitting in time the risk monitoring reports; (d) the monitoring of operational risk losses; (e) permanent tracking of loss recovery at the level of the organizational unit; (f) implementing specific measures for the recovery of losses; (g) preventing future occurrences of operational risk events; (h) formulating and submitting notices and proposals for reducing operational risk.

The Internal Audit Department (Botea, 2006, p. 28) is responsible for reporting the operational risk events identified during the internal evaluation missions. Without involving direct action in the operational risk management process, the internal audit function should remain an independent function within a credit institution.

The Risk Management Division has the following responsibilities: (a) to establish the internal operational risk management framework; (b) centralizes, according to the validation criteria, all information received from the risk takers; (c) analyzes the information in the database identifying operational risk sources.

Traditionally, banks have accepted operational risk as an unknown cost component, which makes it difficult today to identify its multiple sources accurately. Given the interconnectivity of operational risk with other risk categories at the level of a credit institution, the process of managing exposures to this risk category begins with the extraction of information which concerns the occurrence of operational risk events from the set of financial loss events at the bank level. As general sources of operational risk, we find events to be:

- internal, which refers to elements regarding human resources, processes, systems, the structure of the institution, nature of the activities carried out, organizational changes, etc.
- external, such as natural disasters, outer fraud, terrorist attacks, changes in the banking system, technological progress, economic, political or legislative conditions that prevent strategic objectives at the level of the credit institution from being met.

5. Risk management

A significant source of risk is located at the level of the quality of the processes and their own or outsourced systems. Technological progress, such as the electronic transfer of funds, can reduce the exposure to the risk of human error, but increases the dependence on the safety of operating the information system.

At this level (Dima, 2009, p. 84) the bank has to follow in particular:

a) safety, accuracy, and integrity of data storage and processing of relevant information;

b) accessing banking information only by appropriately licensed users through protection filters and system entry restrictions (privacy);

c) the degree to which the design or use of specific processes and systems allows for compliance with legislative requirements (for example, structured reports conforming to the rules of the National Bank of Romania, Basel II or the standards of the group to which the credit institution belongs);

d) the existence of a continuity plan for operations where a process or system becomes unavailable or is destroyed;

e) the degree of compliance of the IT system with the requirements of the supervisory authority, its development, and maintenance for the operational departments.

Another type of risk is the risks associated with bank staff. These risks are pursued:

a) the degree of consistency between the professional qualifications of the employees and the responsibilities set out in their job descriptions;

b) avoiding conflicts of interest in setting staff responsibilities;

c) the correlation between the performance indicators of the staff and its remuneration;

d) the feasibility of the business continuity plan in case of loss of key employees for the institution;

e) the extent to which internal provisions on employee conduct are respected, and responsibilities and instructions related to internal processes are delegated.

Particular attention should be paid to documents concluded by the credit institution (contracts, trading reports, and advertising brochures) which can be used to clarify the terms and conditions of their own banking products. Any inappropriate or inaccurate information contained in these external documents may expose the institution to significant risks of a legislative or reputational nature.

Increased exposure to operational risk is also due to organizational changes, infrastructure, or business environment. Thus, a poorly trained or inexperienced and unmotivated, uneducated person in the execution of a specific activity or unclear information management processes, insufficiently integrated into the current activity.

6. Monitoring operational risk

Operational risk monitoring involves analyzing the set of synthetic operational risk reports, as compared to the thresholds set in the credit institution's risk tolerance policy. Reports reflect relevant statistics on the evolution of key risk indicators, the frequency, and severity of different types of operational risk events.

The organizational structure of the bank should facilitate adequate information flow, both vertically (in both directions, respectively ascending/descending), and horizontally (between risk entities), which would allow the substantiation of the operational risk materialization process. In a simplistic approach, the manifestation of operational risk can be considered significant when gross annual losses exceeding 1% of the relevant indicator (Gallatti, 2003, p. 224). The Basel II agreement refers to the amount of EUR 10,000 for the purpose of constructing the distribution of losses associated with operational risk, from which then the corresponding capital requirement is derived. This value of materiality threshold may be appropriate for large credit institutions with international movement, but it is improbable to small banks with activity predominantly oriented towards traditional actions, such as lending to individuals. A more pertinent approach to the definition of materiality is based on the principle of adequacy modeling the direct relationship between the nature and complexity of the activity and the manifestation of the operational risk, depending on the risk aversion of the bank.

Once the materiality threshold has been reached, the institution shall ensure that the operational risk management operational procedure is applied appropriately and effectively so that the impact on its financial position can be controlled.

7. Operational risk management / control

This stage in the operational risk management process (until the resumption of the cycle) involves the adoption of administrative control measures. The Bank adopts a different attitude in the management of operational risk according to the frequency with which it manifests, while also taking into account the financial impact it generates (Stanciu, 2010, p. 245), namely:

- taking low-risk and low severity risks;
- reducing risks with high frequency and low severity;
- risk transfer with low frequency and high severity;
- eliminating high risk and high severity risks.

Undue operational risks in the conduct of banking business, with a low frequency of occurrence and relatively small value losses, often fully recoverable, can be assumed by the bank. Concrete corrective measures are necessary in the case of events that, although of limited severity, manifest themselves with considerable frequency. Taking into account the causes that led to the manifestation of operational risk, the type of tolerance / maximum tolerance limit that was exceeded, the correlation between the various risk indicators, the consequences and the gravity of the situation, the risk class in which the event falls, the bank will undertake one or more many of the operational risk management specific measures :

- correcting risk behaviors and attitudes by applying incentives to facilitate risk awareness and thereby implementing risk control strategy;
- providing funds for anticipated (expected) losses and maintaining financial reserves for unexpected losses that may occur in the normal course of business;
- employee training at the workplace or facilitating their participation in external training;
- implementing new rules / procedures / instructions;
- restricting access to various computer modules for specific users.

An essential aspect of managing operational risk is represented by its transfer through the purchase of insurance. The Basel II Agreement (Georgescu, 2005, p.15), recognizes the role that insurance can play in reducing the financial impact of operational losses at a bank level. The conclusion of a specific assurance against operational risks may result in a lower level of the minimum necessary capital allocated to this category of risks.

The role of insurance is to transfer the financial impact of risk or combination of risks from one entity to another. By taking out insurance against a specific risk, the bank relies on the insurer's ability to provide compensation under agreed conditions.

Insurance against operational risks:

- offers a bank the ability to eliminate or diminish large fluctuations in liquidity;
- leads to limiting the impact of catastrophic situations on the viability of the institution;
- facilitates solutions to improve the process of operational risk management through corrective measures imposed by qualified insurer monitoring.

The most commonly used operational risk insurance policies are:

- the complex bank insurance policy, which protects employers against lack of honesty or failure to perform service tasks by employees, against fraud and forgery, and against loss of damages caused to the assets owned by the policyholder;
- the computer fraud policy, which protects the insured against losses caused by malfunctioning of the computer network, viruses, data transfer problems, fraudulent transactions;
- the liability policy covering claims paid to third parties due to the losses suffered by them as a result of the negligence or professional misconduct of the insured's employees;
- policies for movable and immovable property covering the usual risks that may affect the property of the policyholder (fire, earthquake, etc.).

A bank's decision to contract insurance against operational risks depends on a multitude of factors that influence both the potential benefits it will obtain and the size of the insurable risks. Among these, we can mention the size of the bank, its risk profile, the time horizon of risk coverage, the attitude of the stakeholders, the rating of the bank (Power, 2005, p. 577).

According to Basel II, an insurance policy is considered eligible to reduce exposure to operational risk only if it meets two of the following eight criteria :

1. The issuer of the insurance policy shall have a rated benefit rating rated at least one level A or equivalent performance;

2. The initial term of the insurance is at least one year, and if the residual duration of the policy is less than one year, corresponding value adjustments will apply;

3. The notice period for cancellation of the policy must be at least 90 days;

4. There is no conditionality related to the actions of the supervisory authority in the sense that the eventual insolvency of the insured credit institution does not entail the cancellation of the liability of the issuer of the policy to pay the damages covered by the contractual provisions;

5. Calculations made on the level at which the insurance diminishes the size of the operational risk must reflect the extent to which the policy covers the potential severity of the considered operational risk event;

6. The issuer of the insurance is not part of the group of the beneficiary institution, unless the insurance undertaking, the affiliated bank of the insured bank, proves that it appropriately transferred the risk to a third party by reinsurance;

7. The framework for the recognition of operational risk mitigation tools is adequately structured and documented;

8. The bank shall provide appropriate information to the general public on its policy for mitigating operational risk and the purposes for which it is applied.

8. Operational risk assessment

The operational risk assessment aims at detecting the most vulnerable operations of the credit institution through a risk scale (low, medium, high risk).

Classification of activities is based on the likelihood of occurrence of the event generating operational risk losses and the severity of the impact or on the financial position of the bank.

Operational risk assessment methods generally have a small quantitative value compared to methods of quantification of credit or market risk, expression of conceptual difficulties, and the early stage of empirical research in this risk category. The very semantics of the Basel II capital agreement suggest that operational risk measurement is less rigorous than credit and market risk.

Table no. 2. Reports on operational risk data collection

	The ratio of operational risk losses	**The recovery ratio of operational risk losses**
Objective	Collecting a set of information on each loss suffered by the bank as a result of operational risk;	Information on the stage of recovering losses incurred by the bank as a result of the operational risk, previously transmitted on the basis of loss reports;
Structure	The report collects data in relation to the first two categories of database information, namely general information about the operational risk event and information about the losses generated by the operational risk manifestation;	The report presents a structure similar to the last category of database information, i.e., new information discovered during the time elapsed between the two reports;
Informing periodicity	The operational risk loss ratio is completed and transmitted monthly; events involving losses that exceed the established materiality threshold are reported operative;	The operational risk recovery report is completed and transmitted on a monthly basis with the information specific to the reporting period;
Reporting term	The deadline for submitting the report is the last working day of the month for which the reporting is made;	The deadline for submitting the report is the last working day of the month for which the reporting is made;
Reporting responsibility	The risk managers are responsible for the completion and transmission of the Operational Risk Loss Report: Operations managers for the territorial units of the Bank, respectively the Serviced / Department / Division Directors of the Center;	The risk managers are responsible for the completion and transmission of the Operational Risk Loss Report: Operations managers for the territorial units of the Bank, respectively the Serviced / Department / Division Directors of the Center;
Report destination	Within the prescribed period, the operational risk loss ratio is transmitted to the person in charge of the operational risk management of the Risk Management Department.	Within the expected deadline, the operational risk loss recovery report is forwarded to the person in charge of the operational risk management of the Risk Management Department.

Source: (First Bank Report, 2018)

The risks that may arise in the Bank's current business are:

- Risks associated with credit risk - in which there are the following subdivisions:
    - Counterparty risk
    - Country risk
    - Concentration risk
    - Residual risk
    - Settlement risk

- Market risk - within which there are the following subdivisions:
  - The risk of trading book interest rate (from trading portfolio activities)
  - The bank interest rate risk (from activities outside the trading book)
  - Price change risk
  - Currency risk
- Liquidity risk
- Operational risk
- Reputational risk

For all this, as well as for other associated risks, First Bank has defined an internal process for assessing capital adequacy risk. According to their 2015-2018 Business Strategy, the Bank's mission was to strengthen its position on the Romanian financial market through high-quality services offered to its clients, promoting an environment conducive to capitalizing on human resources and protecting the interests of shareholders by creating value for them. Achieving these goals largely depends on effective risk management.

The Bank's risk strategy is based on three parameters:

I. The appetite for risk

II. Risk profile

III. Risk tolerance

I. The appetite for risk indicates the level of risk that the Bank is willing to accept.

The accepted risk level has two components:

- the level of risk associated with existing exposures
  and
- the level of risk associated with future exposures.

According to the Strategy and Business Plan for 2015-2018, the Bank's management structure has set a moderate risk appetite for 2015. This level represents the level of risk that the Bank accepts for new exposures, in addition to the risk from exposures existing in its portfolio up to 31.12.2014.

Consequently, given the fluctuations in the risk profile in 2014, the level of risk arising from the existing portfolio of the Bank (especially as a result of the materialization of credit risk), the risk appetite for 2015, the general strategic objectives, as well as the market conditions (the turbulent economic environment), First Bank objectively accepts a high-risk level of 1-3 years (mainly driven by the evolution of the macroeconomic environment and international markets) and aims to reduce the risk to a medium-high level on within 3-5 years, and will continually set risk reduction targets.

These targets take into account the fact that, in conditions of economic turmoil, the Bank will objectively accept a higher level of risk from existing exposures, but will take all necessary measures to reduce the risk appetite for new (future) exposures.

II. Risk profile represents the totality of the risks to which the Bank is exposed depending on the strategic objectives and, accordingly, on the risk appetite. Assessed according to the risk matrix, the risk profile is not a static measure, but an evolutionary risk assessment with a predetermined frequency. Its role is to determine the size of each significant risk and overall risk level based on relevant indicators.

The risk profile is assessed quarterly and is monitored against the level of risk objectives set out in this Strategy. Depending on the evolution of the risk profile in relation to these objectives, as well as the temporal extent of a particular development (for example, the period in which the risk exceeds a certain level), the Bank may provide for measures to correct or control the risk factors. The risk profile evaluation methodology is detailed in First Bank Romania's risk profile.

The following risk categories define the overall risk profile:

Table no. 3 Risk profile

Significant risk	Expected risk level (1-3 years)	Risk Level Goal (3-5 years)
Credit risk	high	medium-high
Counterparty risk	medium	medium
Concentration risk	medium	medium
Market risk a. interest rate risk: - trading book - banking book b. currency risk	medium medium medium	medium medium medium
Liquidity risk	medium-high	medium
Operational risk	medium	medium-low
Reputational risk	medium-high	medium
Overall risk profile	high	medium-high

Source: (First Bank Report, 2018)

Considering that, in conditions of economic turbulence, the level of risk related to exposures existing in the Bank's portfolio is increasing, and may even exceed the expected risk, the Bank will limit or reduce the risk appetite for new exposures by adopting corrective or control measures to the extent that they are viable and timely. In this respect, risk profile monitoring is essential for risk management activities.

III. Risk tolerance is the ability of the Bank to accept or absorb the risks. First Bank Romania's risk tolerance has the following measurable dimensions:

a. internal capital (available)
b. the liquidity buffer.

a. Internal Capital (available) is the source of covering / absorbing the unexpected loss from the materialization of all the risk categories to which the bank is exposed. At First Bank Romania S.A. level, the domestic capital is limited to the amount of Tier 1 and 2 own funds. The Bank's objective is to maintain internal capital available to a level sufficient to cover capital needs internally.

Risk tolerance is up to 90% of the national capital. This level corresponds to the objectives set out in the Capital Plan 2015-2018 regarding the evolution of the solvency ratio, taking into account the regulated and internal capital requirements. Under stress conditions, the bank can accept a maximum risk tolerance level of 94% (the ratio between required and available domestic capital). The bank monitors the ratio between required and available capital, based on a warning limit set at 80%.

9. Conclusions

Banking institutions must recognize the risks of their exposure resulting from day-to-day operations, as well as from achieving its strategic goals. Efficient bank risk management is vital in order to achieve strategic objectives and to ensure the quality of the shareholders' benefits on a continuous basis. Regarding this, the banking institutions strategy concerning significant risk management provides the framework for identifying, evaluating, monitoring and controlling these risks in order to maintain them at acceptable levels depending on the bank's risk appetite and its ability to absorb those risks. Among the risks that may arise in their current activity are credit risk, market risk, liquidity risk, operational risk, and reputational risk.

First of all, banks should aim to be in a medium risk profile regarding operational risk exposure. They should adopt clear, efficient and complete strategies and processes, in order to permanently evaluate the capital requirements, as well as to maintain the internal capital at a level deemed appropriate to cover the nature and extent of the risks to which they are or might be exposed.

Second of all,(Dardac,2010), starting from the fact that operational risks are one of the most difficult risks to quantify and monitor, banks should put forward through their risk strategy to create the premises for organizing a working framework to meet the risk profile objective, namely to maintain this risk category at an average level. As a consequence, it is necessary that the procedure for defining operational risk events should be through the Risk Profile and the operational risk management policy (in accordance with Basel II).

In conclusion, it is necessary to consider creating a risk matrix meant to ensure continuous monitoring of the occurrence of operational risk events. The main events that can generate operational risk are internal and external fraud; defective customer, product and activity practices; damage to tangible assets. Thus, it must be organized a historical database, collecting this way all operational risk events and their losses. These methods will be established within the territorial units and departments of the bank's central headquarter by those responsible for monitoring and reporting operational risk events. Reporting should be made monthly to the Risk Management Departments, and then forward them centralized to the Risk Management Committee regarding these events. If the bank risk management process and global management system are effective, then the bank will be successful.

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