

THE OPERATIONAL RISK MANAGEMENT

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Abstract

The specialty literature says that the risk is an essential element for any economic activity. It can be removed, but it can be administrated. This is why everybody says that „the one that doesn't risk is the one that risks the most ” because he loses winning and development chances for his business.

Any economic agent wants to maximize his income. This can be done because the specific risk can be administrated and also it can be assigned. A success strategy for a financial institution must have programmes and administrative procedures for banking risks, in order to minimize the appearance probability and the potential exposure of the risks and to achieve the central objective: a very good income for the shareholders.

However, in the real life there can be situations when the implementation and working procedures costs may be higher than the potential risk exposure. Also we can have situations when the bank strategy involves high and new risks. That is why the risks minimization shouldn't be transformed in an objective.

Banking risks clasification

The specialty literature mentions that the banking risks can be separated by taking into account different criterias:

- a. Risk degree, we have:
 - pure risks; they are generated by the activities and the institution processes: frauds during payments, clients accidents into the bank branches, disrespect for the polution rules;
 - speculative risks; they are generated by the need of getting a bigger profit, suplimentary expenses, losses;
- b. Allocation into the financial system:
 - diversify risk; they can be unimportant if they are combined with a sufficient number of Financial Statement positions;
 - undiversified risks;
- c. The bank characteristic:
 - Financial risks that appear in the payment system: credit risk, liquidity risk, market risk (interest risk, exchange rate risk, bankruptcy risk, capital risk)
 - Work out risks, as: operational risk, technological risk, the new product risk, strategic risk;
 - Ambient risks: fraud risk, economic risk, competitor risk, legal risk;

In contradiction to credit risk or interest risk, that need to be measure because they have a measurable characteristic and they can be anticipated, if the dimension of the sample is big enough, the operational risk is totally different: we have random losses, losses that are not measurable. The loss probability is more a quality and control function, than a mathematical probability for the historical average projected in the future. In the past, the operational risk was considered more implicit than explicit.

2. Different approaches related to operational risk

2.1 Operational risk definitions

Basel Committee defines operational risk as: „the risk of direct or indirect loss resulting from inadequate or failed internal processes, people and systems or from external events”. An important component is the legal risk that appears because of non-application or bad application of regulatory or contractual dispositions, which affects negatively the banks evolution and operations. But this approach doesn't take into consideration neither strategic risk¹, nor reputational risk².

According to Basel II Agreement, the operational loss represents the loss resulted from an event of operational loss. This loss includes all the expenses related to this event, excepting opportunity costs, known income and the cost related to risk management and increased control operation, used to prevent future operational losses.

Because there is no clear definition of this type of risk, the Basel Committee had as a mean to underline the minimum standards for all the banks. After this, the banks adopted as a practice the list of the risk categories and their analyze, in order to cover all the possible operational risks and to concentrate on the most important severity causes.

- The fraud risk - this is the risk that appears as a result of individual actions and practices. It is materialized in advantages and unjustified results for individuals. Because of this there can be create a standard model to quantize or prevent operational risk. As a solution, it is recommended a developed risk system, characterized by the followed fundamental principles: upright staff, a developed internal control department and independent external auditors in order to supervise the activity of the internal audit.
- The risk of losing the control – it is represented by a low capacity of the top management to manage and control the operational activities. It has two main categories:
 - Inherent risk, that is the risk of a type of the bank activity and it increases at the same time as the complexity of the business lines increases.
 - Control risk, that is the risk of unprevention, undetection and uncorrelation in time of the financial loss.
- Liquidity risk – it is generated by the incapacity of obtaining financing at reasonable costs and they can generate even bankruptcy. The sources of this type of risk are:
 - the bankruptcy of a counterpart to which the company has a big exposure
 - the impossibility to cover the assets value with the liabilities value for a period of time
 - unexpected funds out
 - the impossibility of obtaining funds at a reasonable price

Other types of operational risk: the transfer risk, the use of improper methods and formulas risk, the process risk, the staff risk, the legal risk, the reputation risk, the natural catastrophe risk, the marketing risk, the loss risk, the risk of not achieving the estimated profit because of the fiscal system or to the regulations changes , the technological risk, the bankruptcy risk because of the mechanisms, staff and IT&C structure that can support the business.

¹ The strategic risk is linked to the mission and the general strategy of the business. It involves the major factors that can effect the company ability to get to its objectives. It is very important for all the markets, products or geographic areas that involves the definition of the bank strategy. It might be possible that the bank won't choose the right solution.

² Reputational risk is the risk of having loss and not making the estimate profits. This is as a result of the public lack of confidence.

Nowadays, a lot of companies make the differences between the risks that can be controlled and the ones that don't. The controlled risks are the risks where the banks activities can influence the result and they can be cover normally, without the need of a third party. The uncontrolled risks are represented by the risks that can't be internally controlled by the bank. They can be cover against the natural catastrophes through an insurance, from an insurance company, a third party.

The specialized literature presents the opinions of more authors regarding the operational risk area. Therefore in 2001, The PNC Financial Services Group recommended a more concise definition for the operational risk, a definition that should be based more on direct losses and which exclude categorical the business risk, the strategic risk and the reputational risk: „the operational risk is the risk of the income direct loss, which results from internal events connected to inadequate personal, important errors or illegal behavior because of the errors or the systems and processes inadequation, or from external events where the risks are not cover by the credit, market or interest rate risk “. Thus the operational risk can be interpreted as a vulnerability of the financial institution, that can be reduced or eliminated though an increased control.

The important increase of the operational risk is due to organizational, infrastructure, business environment or improvement changes. These changes were materialized in: the development of the technology, the increase of the attention to the transparency, the increase of the electronic commerce, the increase of the operations for the natural person and small economic agents, deregulation, the incompatibility of the systems, the increase use of the automatic technologies, globalization, the increase use of the external sources and the complicated technologies to reduce the credit and market risks. All these determined a healthy management of the operational risk and the inclusion in the internal process of a bank. Thus, the financial institutions considers that this risk appears in the departments called „Operations” and are concretized into potential losses generated by errors and controls, systems and processes omissions. That is why it is not necessary to have a special department for the operational risk. Also, the risk management is made by a global risk committee. But there are some institutions that consider the operational risk as the risk that not harmonize with the credit or market risks and which incorporates all the risks, except the credit risk and the market risk, in order to take into consideration all the potential influences over the profit and losses account. This thing brought some problems and thus the financial institutions decided to limit themselves to things that can be measured easily.

2.2 Determinant factors for the operational risk

In the literature there are known two types of determinant factors for the operational risk that generate losses or the unachievement of the estimated loss:

- internal factors, as example the inadequate development of some internal activities, staff unprepared, improper systems etc;
- external factors, as example the economic situation, changes in the banking system or technological achievements. These factors include: the necessity to develop in a short period of time a high volume of transactions, the necessity of using the electronic funds transfer and other telecommunication system in order to tranfer the property of big amounts of money, the necessity of developing operations in different regions, the management of a high volume of monetary elements, the necessity of monitoring and solving the important exposures.

These factors are very important and the companies have to be very carefully, by monitoring them, because in the last period of time it was recorded a higher level of the operational risk. Especially this is due to organizational, infrastructure and business area changes. Also, we have the development that generated a higher attention for the operational risk and its inclusion in the internal capital allocation process of a bank.

2.3 Operational risk categories

The Basel Committee for Bank Supervision presents seven categories of operational risks: **internal fraud**, which generates losses because of the intention to disrespect the internal regulation; the **external fraud** that generates losses because of the activity of a third party,

who has the intention to damage and disrespect the bank regulations; **risks** that appear from the relation with the clients, the products and the business practice; **risks** generated by the destruction of the corporal assets: disasters, fire, earthquake, explosion; **errors** in the system; **the defective** operation management, execution and distribution because of the defective transactions execution or defective monitoring or insufficient information regarding clients; **employment rules** and work safety.

The most used operational risk examples involves: system breakdowns or system errors; transactions process or control of errors; the activity stop; internal or external criminal acts; security disrespect or staff risks; improper control at all levels; the inexistence of the responsibility and of regulations for an integrated system, which can record wrongly data for a long period of time. The operational risk appears at different levels, as: personal level: human error, inexperience, fraud (they are recorded as destructions, false information or hide of information); procedures level: improper procedures and control regulations in order to create the reports for the national institutions responsible with the operational risk, to monitor and to take a decision; technique level: the implementation or the absence of the inadequate instruments used to measure the operational risk; technological level: system errors;

A very special attention is given to external sources, because an improper information can expose the financial institution to very important operational risks. The operational risks can affect the institution solvency and can generate a wrong approach of the consumers and also a fall of trust for the banking market.

3. Banking risk management

The risk management is a managerial process that involves all the techniques and methods to evaluate and analyze the risk. It is represented by different processes as: measuring, controlling, reporting or choosing that decisions which lead to the reduction of all risks. In this way they offer the bank a better vision regarding the future image or the politics and banking strategies that have to be developed.

Informer-Pay Net Group Romania proposes to banks a complete risk management solution to implement the Basel II Agreement regulations, as their representant, Cristian Artemi, declared: „Romania integration process into European financial market oblige the banks to adopt business strategies based on competitiveness. Informer Grup sustains this process through performant solutions that help the banks to pass easier from the basic approaches to the advanced ones and to generate real advantages like the loss reduction and capital pass in the reserve”. Another company that developed solutions for the development of risk management is TLC Risk Solutions. They developed a complete solution, Barracuda. Its goal is to offer a coherent vision for the present or future positions regarding all the risks mentioned by Basel II Agreement and the National Financial Institution responsible with risk regulations and it gives the possibility to use all the approaches: basic approach, standard approach or advanced approach.

Throught the Regulation 17/2003, the National Bank of Romania imposed to banks to improve their risk management systems. They have the obligation to evaluate the operations, the sensitive activities and the exposure to this risk. The role of the banking management is to evaluate not only the institution risk exposure, but also the controlling methods and techniques of different risk situation.

The main objectives of the banking management are: profitability maximization and risk exposure minimization. In case the company achieve this the employees become more serious and responsible regarding their job and also the psychological effect of not doing frauds is more powerful. In conclusion the final goal and objective is to identify and eliminate the risks. But the identification of the risk factors, the evaluation, the control and the risk reduction are the main steps taken in the risk analysis and depends on the period of time taken

into account, the costs and benefits, the data and information veracity, the possible externalities and interdependences between the events. The existence of proper programs to prevent and control the banking risks have a big importance for the name of the bank and its position in the market or different bank associations. Also it can help to get good marks during the evaluation process that the National Banks develops.

4. Operational risk management

Through operational risk management the bank wants to reduce the errors and improper activities that have a strong impact over the clients, financial losses or give bad reputation to the company. If we make a selection through the specialty literature Cummins, Lewis and Wei in 2005 presented four theories regarding the operational risk management:

- the opponents of the capital need for the operational risk considered that this type of risk can be easily diversify by the investors. In comparison with the other types of risk, the operational risk is asymmetric and every time it is strong related to losses, not earnings. But the financial institutions can administrate the operational risk only to the point where the marginal expenses are equal to reduction of marginal loss that appeared because of the events that generated operational losses;
- The modern risk management theories considers that financial institutions can have earnings if they administrate the risks because of some factors as: convex form of taxes, financial costs and losses, asymmetric information or agents costs;
- Froot, Scharfstein, and Stein (1993) considered that the information asymmetry between institutions generates an external capital more expensive than the internal capital. This happens because the banks have more information about the portfolio quality than the investors and the insurers have more information regarding the exposure distribution and reserve aptness regarding losses than the investors.
- If operational losses generates positive net present value to financial institutions because the internal capital is completely used, the shares price will follow more than the loss value. The operational risk events can generate a bad quality for the management and main control of the market for the reduction of the cash-flows future estimations.

The operational risk management, as it is presented in the paper "Operational risk management" by Jack Copeland, has at basis six principles that we will present in the following lines:

1. Hazard identification – using strict traditional procedures what analyze more and more hazards with the one of the following basic instruments: operations analisis or financial flow diagram, the preliminary hazard analysis, scenarios, logic diagrams, change of analysis, cause-effect;
2. Risk evaluation – it is made in order to determine the fundamental causes and to establish the risk levels to use the risk evaluation matrix in order to make the risk a priority, from the biggest to the smallest.
3. The analysis of the risk control measures – it is made in order to develop the management of each type of risk. A good evaluation is made only if the control options are explored at macro level and the hazard control is identified.
4. The control decisions - they must be taken by the proper person and at the proper time on the basis of the proper support and data, but knowing the financial authority for taking decisions, the limits and the risks that must be take into account.
5. The risk control implementation supposes the implementation of the developed strategies. These strategies define: the individual responsibilities, the accountancy and the involvement of each person. They have as a result a positive impact on the mission and the existence of more support package.

6. The surveillance and monitoring – suppose a systematic evaluation of the mission oriented on performant results of the operational risk management determined in real time and on valid data for future applications. To accomplish the conditions of a good evaluation it has to exist a direct risk measure and a feedback mechanism.

Taking into consideration the losses suffered in the last years, the financial institutions changed the operational risk management. So they established as main objectives: a higher capital profitability, a better capital allocation, the avoidance of the unanticipated losses, the avoidance of a big number of losses of small value, the improvement of the operational efficiency; a higher attention for the operational risk during the banking management process; the increase of the services quality for the clients; an efficient information and human resources management.

Therefore, a financial institution has to have:

- a restrictive operational risk management process, data and exchange systems and also systems to measure the risk and to determine the capital need for this risk;
- a management function for the operational risk. This function has to be independent of the business line management, but responsible with the design, implementation and data and evaluation systems surveillance and quantification;
- a process to identify, measure, monitor and administrate products, activities, processes and systems;

Because the internal control represents a start point in the operational risk management process, in 1998 the Basel Committee imposed a regular frame for the internal control of the surveillance authorities. Therefore, the last research presents some important elements as: the main initiative of the financial institutions regarding operational risk is to have a strong architecture of the risk data; although the operational risk is not a new element for the market, the operational risk management, in comparison with the other management areas, is a domain in a permanent development process; the number of the financial institutions that uses informatics' software, for the operational risk management, increased rapidly, but the capacity of the systems continues to be a challenge; to develop the systems and the technological area, the main issue is the implementation data of the operational risk management and the regulation systems capacity; the operational risk management programs offer as results a higher protection and an increase of the shares values; to apply the new Basel Agreement is much more difficult than it was expected; the progress expected through Basel II is lower than the expectations; 79% of the financial institutions analyzed are expecting to have a reduction of the capital through Basel II; applying Basel II Agreement the costs of the financial institutions will increased; almost half of the financial institutions analyzed proposed to realized more benefits than Basel II Agreement mentioned.

Operational risk management programs were made by a management committee that had as purpose to understand the institution risks, because of the operational risk exposure and the events produced during the last years. Therefore a new organizational model was build. This model had as main purpose the development and the implementation of the operational risk frame and also an advisory process at the level of each business line. The new frame of the operational risk management presents five development stages that have as purpose the priorities identification. Also, this frame has a strong connection with the integration processes, the instruments and strategies of reduction this type of risk.

We have to mention in the same way that operational risk is not only a simple regulatory necessity, but also an investment through the optimal allocation of the economic capital by using Risk Adjusted Return On Capital (RAROC). This index represents a correct evaluation of the risk costs and a better knowledge of the clients and their behavior and of the organization and its processes, supporting in this way the general and functional management.

In order to determine the operational risk level, the financial institution has to accomplish some general demands: the formal frame for the activity management has to be strict, has to have an organizational structure very clear, with precise, transparent and coherent responsibilities; has to have an efficient process of identification, administration, monitoring and report of risk; has to have a proper internal control mechanism that includes an administrative frame very clear; has to present politics and processes to evaluate and administrate the operational risk exposures; has to make a proof of a recovery plan in case of different scenarios. In this way the financial institution is protected against losses during crisis.

The financial institutions have at their disposal different instruments that they can use in the moment they decide to administrate the operational risk. This instruments are: the evaluation and identification of risk; risk indexes; data base of the events that generate losses; the risk plan or the target increase.

The operational risk management supposes the existence of the following correlated elements:

- Politics regarding the operational risk management. This politics take into consideration all the events that can generate this type of risk: internal fraud, external fraud, politics regarding staff and the safety of the working place; corporal assets; the stop and a bad performance of the systems; the treatment applied to clients and different business partners, the security of the „electronic banking” system;
- Measures to identify and evaluate the operational risk;
- Procedures to administrate the operational risk. This procedures are represented by: evaluation, monitoring and technologies for risk reduction for the internal plan in order to collect in time the errors.
- Institutions that have as main interests plans to restart the business in case of crisis;
- Legal risk and reputational risk evaluation;

The main benefits of the operational risk management are the increase of shares value; the operational risk protection; the reputation protection and low levels of operational losses.

Regarding the frame of the operational risk, this is composed by six elements:

- The risk management strategy. This has as main purpose the determination of: all the strategies and objectives of the financial institutions, the secondary purposes for each business line, products or managers and the identification of risks associated to the strategy. The financial institutions make the strategy, but also they take into consideration the hazard (negative events represented by major losses that have a very strong impact on the revenues) and the opportunities (new products that depends on the assumed operational risk). Taking into consideration all these the financial institution is capable to select the risk appetite in order to understand, assume, administrate and eliminate it.
- The risk politics. This supposes a discussion with the organization in general about the approach of the operational risk management. This discussion has to have: the risk definition, organization approach, the role and the responsibilities, the main keys for the management and a discussion at a high level regarding the information and technology.
- The management process. This supposes a definition for the risk procedure that involves:
 - the control – supposes a definition for the internal control or the selection of the decrease strategies for risk;
 - the evaluation – has programs to check the politics and controls. It supposes the determination of the severity level;
 - the measurement – represents a combination of financial and nonfinancial measures, risk indexes and economic capital to determine the current level of risk and the purpose progress;
 - the report – involves information for the management about the main and real resources;
- The risk reduction. It can be made with the help of the programs and controls created in order to reduce the exposure, the frequency and the severity of an event.

- The management operations. These are daily processes as: front and back – office functions, technology and management reports. Each operational risk component is a part of this management operations.
- The culture. It involves aspects as: communication and performance measures that help establishing the expectations for healthy decisions.

The operational risk management presents five evolution stages:

- Traditional basic line – it is considered that the operational risk is administrated by the internal control. Also the responsibility is taken by the individual managers and there is no management formal frame.
- The awareness period – the organizational management has a very important role because it helps at the evaluation process of the company. The evaluation starts with a definition for the operational risk politics and the development of the common instruments for protection.
- The monitoring period – the effects on the business are analyzed and an operational risk program is introduced
- The quantification period – it involves the existing of the analytical instruments based on actual data, which have as main goal the determination of the financial impact on the organization
- The Integration period – it supposes different business comparisons, qualitative versus quantitative and different needs of the management

In conclusion, because the banking risks are a source of unexpected expenses, a proper management can stabilize the incomes in time, having the role of a shock damper. In the same time, the consolidation of the banking shares value can be made through a real communication with the financial markets and the implementation of proper programs to administrate banking risks. All the banks and financial institutions have to improve the understanding and the practice of the operational risk management in order to administrate successfully different type of products. If the management of the banking risk and the global system is effective, then the bank will be successful. The banks can manage the banking risks only if they admit the strategic role of administrating the risk, if they use the paradigm analyze-management in order to increase the efficiency, if they adopt precise measures to adjust the performance to risk and, of course, if they will create mechanisms to report performance.

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