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Operational Risk Management: Practical Case of Insurance Intermediaries

Ait SOUDANE Jalila[1], Essaidy Mohammed[2], KATFI Otmane[3]

[1]Professor of Management, Department of Management Faculty of Law, Economy and Social Agdal Mohamed V University, Morocco
[2, 3]Department of Management, Faculty of Law, Economy and Social Agdal Mohamed V University, Morocco

Abstract: ***How can insurance companies manage operational risk which is faced with a multitude of dangers and risks that threaten their activity and what are the tools to assess this risk through the different models used in this field?***

Keywords: Model, operational risk, insurance, Morocco

1. Introduction

The concept of operational risk, in the context of Solvency II, article 13 [1] describes the risk by a potential loss following a malfunction of processes, systems, following a human error, or because of events external. On the other hand, it excludes risks caused by strategic decisions as well as risks related to reputation.

Maladjustment or failure attributable to internal procedures, personnel and systems, or to external events. Includes events with a low probability of occurrence, but with a high risk of loss.

Operational risks are therefore now considered in the same way as traditional insurance (Life and Non-life), credit, market risks, etc. insofar as they contribute equally to meeting economic capital requirements and are part of a culture of risk in its own right.

2. Literature Review

Operational Risk Assessment Models

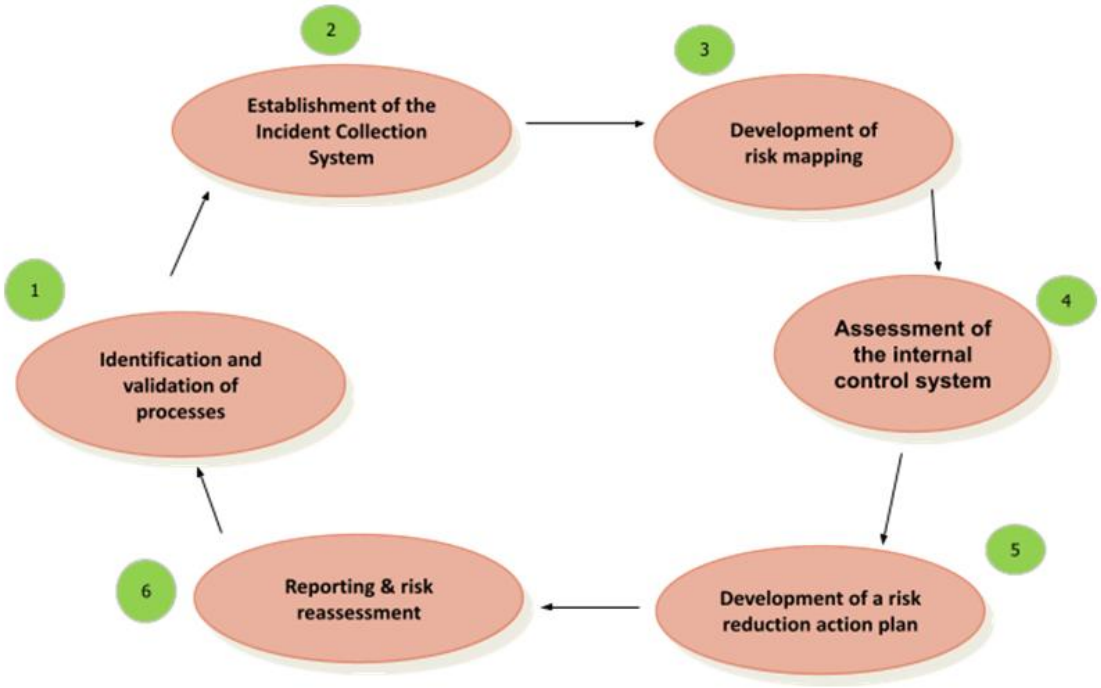
The LDA Loss Distribution Approach is the most frequently used statistical approach for aggregating loss distributions.

The general idea of the LDA (Loss Distribution Approach) method is to model the loss linked to operational risk for a given period (for example, one year) and to deduce the value at risk.

LDA MODELING « LOSS DISTRIBUTION APPROACH »

LDA is based on an actuarial approach (frequency / severity) In order for the LDA model to work, it must be provided with two essential elements: loss severity distribution and loss frequency distribution.

These two distributions, which form the loss history, are then combined by a Monte Carlo simulation to obtain the distribution of the total loss.



Graph 1: process of setting up an operational risk management system

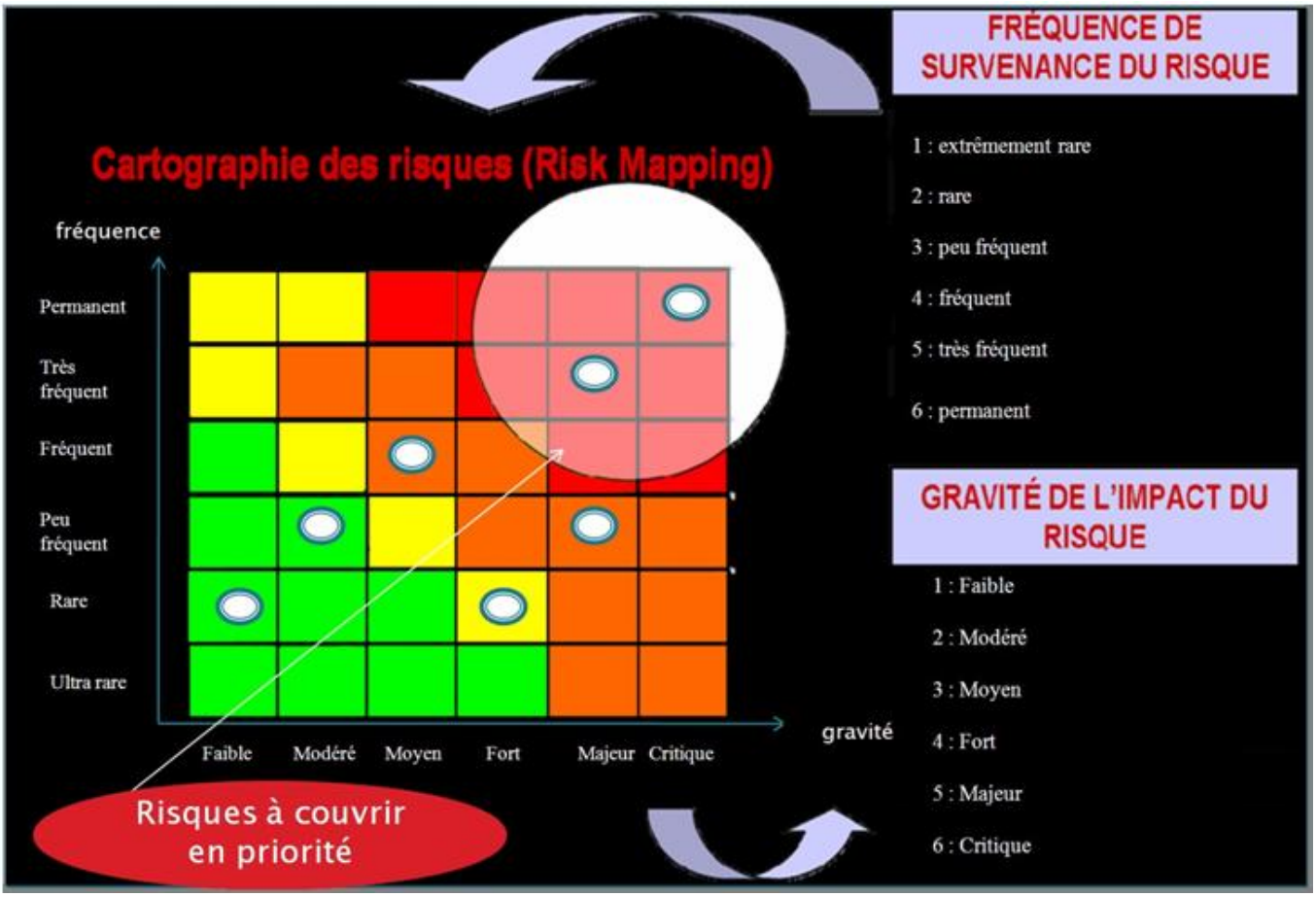
Table 1: The basis of incidents and losses

Loss number	Beginning of the loss	End of the loss	Ascertain men t of the loss	Category risk	Losses Actual in Dhs
000000000000033	20120115	2012011	20120115	PROCESS	10 500,00
0		5			

"The advantage of this database is to build up a detailed history (of claims), which makes it possible to know and analyse the types of claims observed and their frequency.

From this approach, the intermediary will be able to gain a better knowledge of the sensitivity of the activities, monitoring of changes in the various risks and their corrective measures.

Step 2: Risk mapping



Graph 2: Risk mapping

It is presented in the form of a matrix of two axes: An axis represents the financial impact; An axis represents the frequency of occurrence.

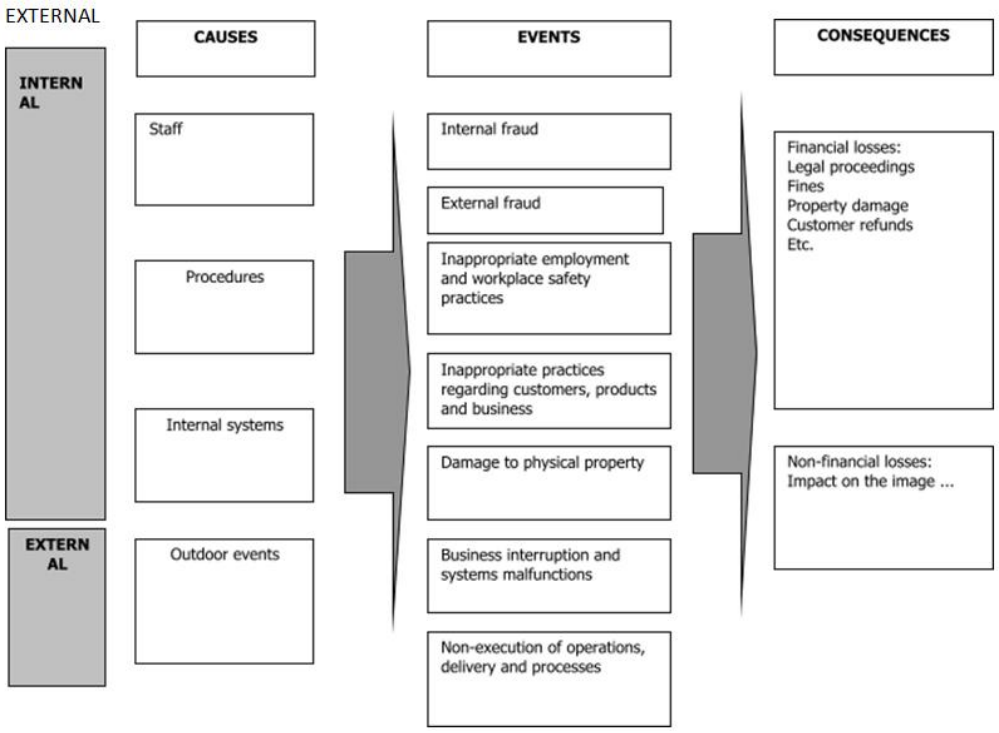
Frequency

A very frequent risk is a risk to which we must assign importance and which we must try to control and minimize through the study of different aspects (Causes, Processes, and Consequences).

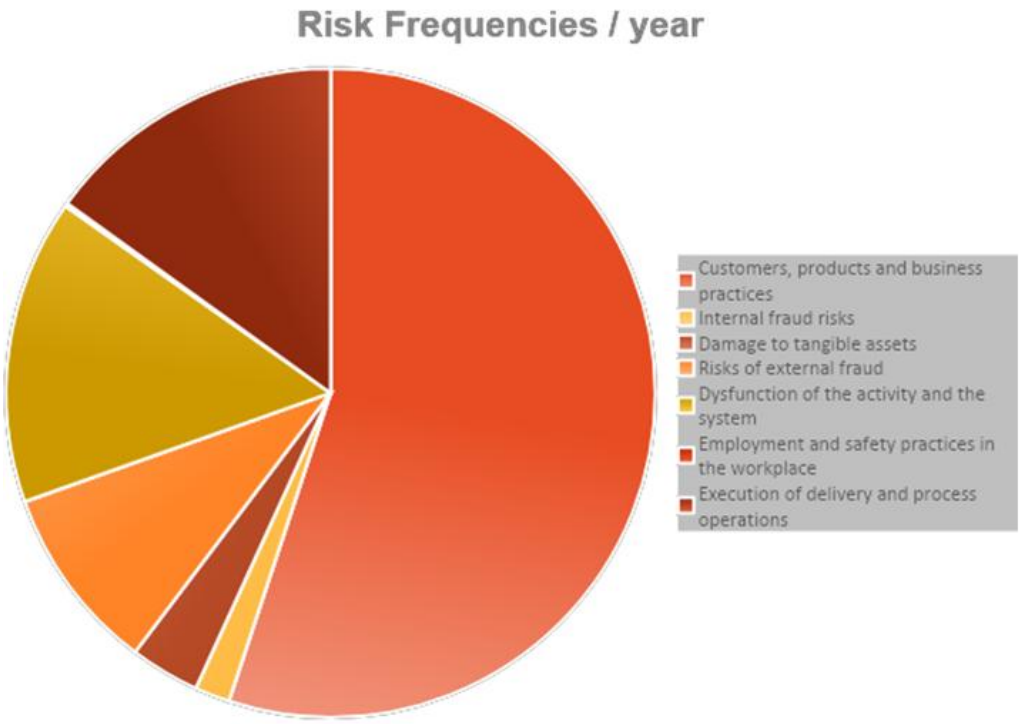
The risk occurrence frequency scales are defined as:

Table 2: Risk occurrence frequency scales EXTERNAL

Level	Level	Definitions
6	PERMANENT	a few times a day
5	VERY FREQUENT	a few times a week
4	FREQUENT	a few times a month
3	RARE	a few times a year
2	RARE	less than once / year
1	EXTREMELY RARE	less than once / 5 years



Graph 3: Classification of operational risks



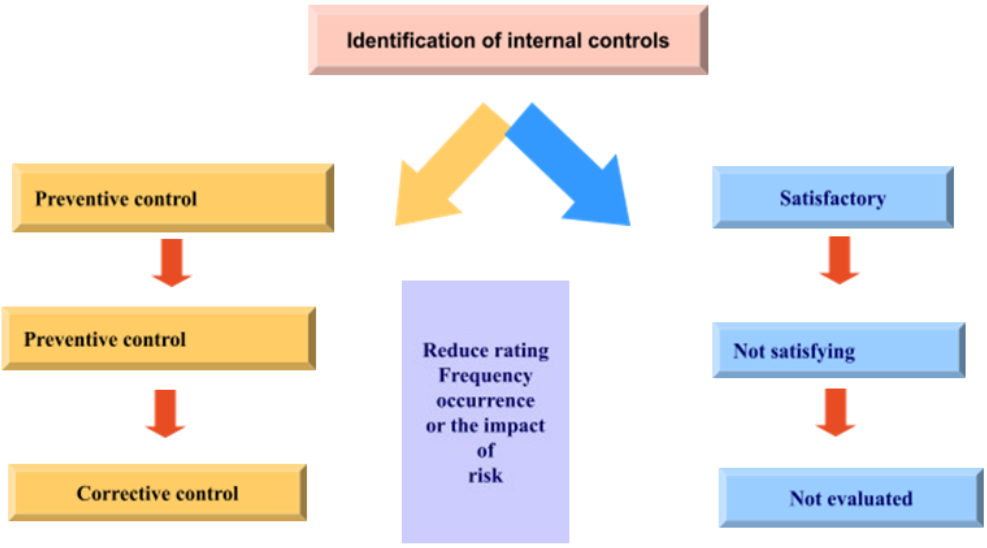
Graph 4: Frequencies of the 7 operational risks at ALF

The risks	Frequencies / year
Customers, products and business practices	380
Internal fraud risks	12
Damage to tangible assets	24
Risks of external fraud	64
Dysfunction of the activity and the system	105
Employment and safety practices in the workplace	1
Execution of delivery and process operations	104

Graph 5: Frequencies of the 7 operational risks at ALF

Table 3: the scale of financial impacts

Level	Scale	Impact in DHS
6	Critical	Greater than or equal to 100,000.001
5	Major	Between 10,000,0001 and 100,000,000
4	Strong	Between 1,000,001 and 10,000,000
3	Medium	Between 100,001 and 1,000,000
2	Moderate	Between 10.001 and 100,000
1	Low	Less than or equal to 10,000



Graph 6: operational risk identification process

When identifying an area of risk to be mitigated, it is first important to identify all of the existing internal controls related to that area, independently of any assessment of those controls. The identification work will be carried out through interviews with operational staff and their managers and through consultation of internal and external audit reports. Secondly, it is necessary to differentiate the existing internal controls according to their nature:

Preventive control: It aims to reduce the probability of the risk occurring by intervening at the level of the causes of the risk.
Detective control: It allows alerting and taking action when the risk appears. Corrective control: It is designed to reduce the consequences of the risk.

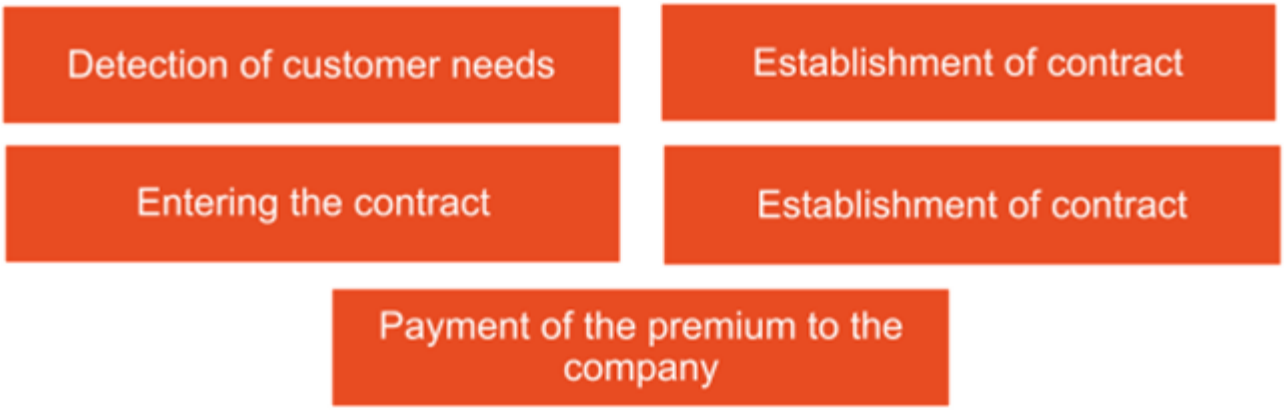
Evaluating the effectiveness of internal control consists of estimating the quality, regularity and permanence of its effective functioning. This effectiveness is rated on a three-level scale.

Application on operational risk at Lyazidi Insurance (ALF)

Insurance Contract Management Procedure

Now we will try to apply all the previous steps on our practical case Contract management, like any process, involves risks.
These risks, which are linked to people, to the procedures and systems used by ALF, can threaten the achievement of these objectives. To overcome this, insurance intermediaries must put in place a good risk management system.

1- Risks Identification:



Graph 7: The five identified business processes

After detecting the customer's needs we move on to the next step, the step of establishing the contract, which also includes risks such as a computer failure

After establish we must enter our contract on our system in order to keep proof and follow-up of our client's contract this procedure also contains risks related for example to incorrect entry of the premium or the address or the type of renewable contract or close

2 - Rating of inherent risks

a) Assessment of frequency of occurrence

Table 1: Identification of the risks inherent in the process of identifying customer needs

RISQUES INHERENTS
Error in identifying customer needs
Computer malfunction
No signature of the contract
Entry error
Lack of control over the means of payment
Premium collection error
Late payment of premiums
Deduction error for rebates

Table 2: Identification of the risks inherent in the contract establishment process

	Frequencies Of Occurrence	Level
Error in identifying customer needs	RARE	3
Computer malfunction	FREQUENT	4
No signature of the contract	FREQUENT	4
Entry error	FREQUENT	4
lack of control over the means of payment	VERY FREQUENT	5
Premium collection error	FREQUENT	4
Late payment of the premium	LITTLE FREQUENT	3
Deduction error for rebates	LITTLE FREQUENT	3

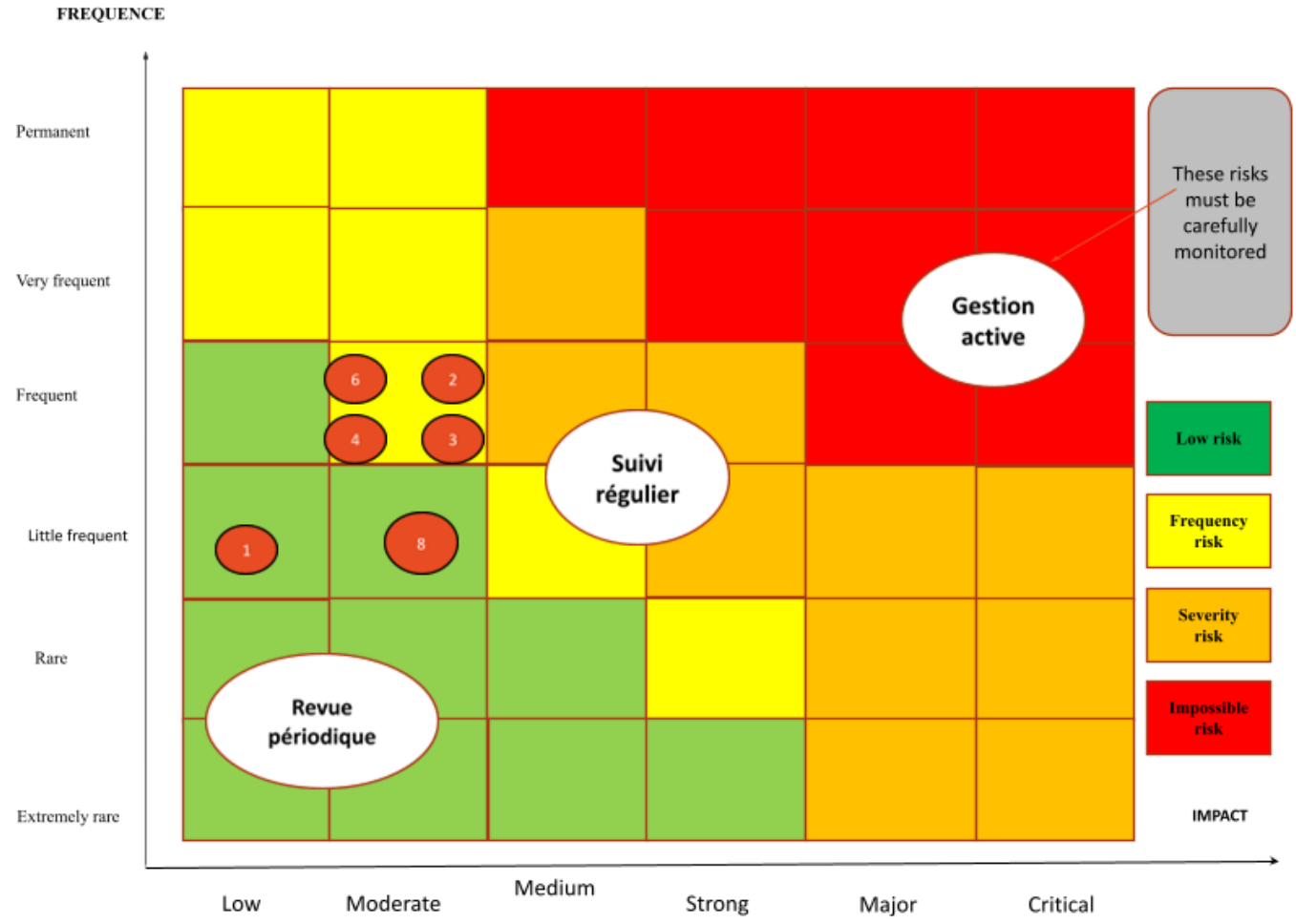
b) Risk impact assessment

Table 3: Identification of the risks inherent in the contract entry process

Inherent Risks	Impact	Level	Consequences
Error in identifying customer needs	Low	1	Customer loss and image
Computer malfunction	Moderate	2	Customer loss and image
No signature of the contract	Moderate	2	Legal risk; Lack of justification valid in case of dispute
Entry error	Moderate	2	Image risk
Lack of control over the means of payment	Medium	3	Payment of the premium to the company when the check is incorrectly written Customer loss in case of failure to respect the date of the check
Premium collection error	Moderate	2	Sending of suspension of the contract when the customer has paid the premium, therefore the customer's loss
Late payment of the premium	Major	4	Loss of image and customer
Deduction error for rebates	Moderate	2	Financial loss for the company

c) Presentation and classification of risk mapping

Mapping Risks at ALF



3 - Assessment of internal control systems

Table 4: internal control systems 4- Action plan

Inherent risk	Internal control	Internal Control Type	Evaluation
Error in identifying customer needs	1st level control by the salesperson	corrective	Not satisfying
Computer malfunction	Control by a TICKET MANAGEMENT application	Corrective and preventive	Satisfying
satisfactory	2nd level control by the department head	corrective	Not satisfying
Entry error	2nd level control by the data entry manager	corrective	Not satisfying
Lack of control over the means of payment	1st level control	preventive	Not satisfying
Premium collection error	2nd level control by the head of service	Corrective and preventive	Satisfying
Late payment of the premium	3rd level control	Corrective and preventive	Satisfying
Deduction error for rebates	1st and 2nd level control	Corrective and preventive	Satisfying

The internal control system therefore makes it possible to maintain the risks identified at a more or less average level.
For better efficiency, it deserves to be strengthened.

For this, we make the following recommendations for the attention of the general management of CABINET LYAZIDI ET FILS:

Table 5: Recommendations

Inherent Risks	Recommendations
Errors in identifying customer needs	• Rigorous application of procedures • Constant updating • Staff training
Computer malfunction	• Establish contracts in triptychs in parallel with Extranet applications
No signature of the contract	• Monthly control of contracts completed and not signed by the client • Relaunch the customer for the signature
Lack of control over the means of payment	• Alert system to inform that the date of the check is greater than the date of the entry day
Input errors	• Strengthen control • Establish a data entry schedule for each branch • Recruit another person to enter various risks
Late payment of the premium Premium collection error	• Daily IT alert system at management level • Reinforcement of control at the 1st and 2nd level
Deduction error for rebates	• Strengthen the control of rebates • Control carried out by a member of the Management

4 - Reporting

The Reporting make it possible to collect all the information necessary for the perpetual reassessment of the risk mapping.
For contract management procedures, this involves establishing a daily report on the activity of contract management in order to highlight the major risks to be managed.

Synthesis

Despite the fairly efficient aspect of operational risk management within CABINET LYAZIDI ET FILS, the system has a number of shortcomings to achieve the desired performance.

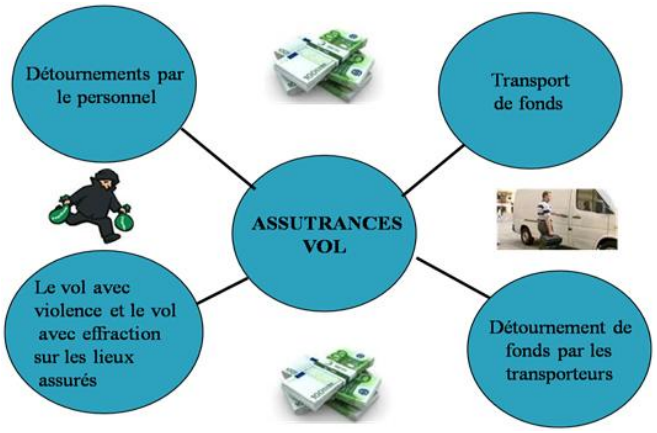
In addition, risk mapping has shown that certain areas, such as the RED ZONE for example, cannot be controlled even with the most efficient controls because there are risks that are caused by external events that go beyond human and IT management. (Like natural disasters and others) hence the need to take out insurance policies.

Operational Risk Mitigation Solutions

Operational risk can be subdivided into two categories: Controllable risks:

- Losses from process failures, human errors, IT failures …
- This type can be mitigated by anticipation, in particular through preventive controls risks that cannot be controlled:
- Losses caused by uncontrollable external events: natural disasters, theft …

What types of insurance can mitigate Operational Risk? 1- Insurance against theft, internal and external fraud



5 - Property damage insurance: Natural disasters

This type of insurance did not exist before but with climate change insurance companies have integrated them Insurance against property damage: Property damage.

6 - Business interruption insurance

Its purpose is to:

Compensate for the drop in turnover and profit following a claim

Provide the means to restart production and return to normal activity.

After a fire or water damage, in fact, the business can shut down for several days or several weeks while the fixed charges, of course, continue to run. Since the insurance of the company's property in this case only reimburses what has been destroyed, the business interruption insurance thus makes it possible to withstand the shock and put the company back on track to be able to continue operating.

Compensation is based on an analysis of the company's balance sheets for the past three years. This analysis is carried out by an expert appointed by the insurer.

7 - Workplace Accident and Occupational Illness Insurance

Any accident to any employee as a result of or in the course of work. Traffic accident.

Accident occurring during a work assignment.

8 - IT risk insurance

Its purpose is to cover:

- Sudden and unforeseen property damage affecting computer systems and equipment
- The pecuniary losses that may result from this damage.

The insurer guarantees damage to:

- Computer equipment of all kinds

3. Conclusion

- Office automation and telecommunications equipment
- Security and surveillance equipment

Good risk management is an asset that represents added value with a competitive advantage and supports the development of the business and helps to safeguard the positive image of the company. However, in order to achieve better risk management, it is necessary to establish a risk culture and have optimal staff collaboration, to strengthen internal control which makes it possible to prevent significant risks, take out insurance policies and develop an internal model for modeling operational risk.

References

[1] Financial models in insurance (Fréderic Planchet, Pierre Thérond and Marc Juillard)
[2] Human resources management (Loic Cadin, Francis Guérin And Frédérique Pigeyre)
[3] Measurement and management of insurance risks (Fréderic Planchet and Pierre Thérond)
[4] Mathematics and calculations of insurance by Jean Louis Cassabalian
[5] Personal insurance actuariat: modeling, pricing and provisioning by Michel Denuit and Christian Robert.
[6] Insurance risk management course and theory of ruins by Stéphane Loisel
[7] Analysis of the operational risk management process by banks by Saadani Zahir
[8] Solvency and internal control of insurance companies in morocco - report of the ministry of finance March 2012
[9] Measurement and management of insurance risks: critical analysis of future prudential and financial reporting frameworks by Pierre-Emmanuel Thérond
[10] Modeling of operational risk in insurance by Julie Gamonet
[11] The quantification of the operational risk of banking institutions by Hela Dahen
[12] An economic and experimental analysis of insurance and audit fraud by Sam Eh Borgi
[13] Solvency ii: what stochastic modeling of technical provisions forward and non-life? By Clelia Sauvet
[14] Operational risk in retirement funds by: Elissa Parenteau
[15] The quantification of the operational risk of banking institutions Parhela Dahen
[16] The standard formula (qis5 version), levers and / or uncertainties for savings and retirement guarantees by Anne Mazzanti