

Title: RISK MANAGEMENT				
Area: Risk Management and Internal Auditing Department			Approver: Board of Directors	
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1. OBJECTIVE

This policy aims to establish the guidelines adopted by MRV & CO in the processes of identifying, assessing, communicating and handling risks and opportunities as a result of the company's operations.

The Risk Management Policy aims to ensure that the responsibilities and guidelines are defined encompassing the widest variety of scenarios including goals, methods and monitoring systems.

While managing and monitoring risks, MRV & CO also seeks out opportunities to minimize any potential negative impacts resulting from the company's activities, in addition to maximizing business opportunities.

2. SCOPE

The guidelines of this policy shall be observed and followed by all companies within the MRV & CO family, and serve as a source of permanent consultation for defining and implementing management strategies as regards risks and opportunities.

3. TYPES OF RISKS

The various types of Strategic Risks at MRV & CO have been subdivided into eight categories according to their specific nature, listed as follows:

- Compliance Risk: risk of legal or regulatory lawsuits, in addition to damage to the company's reputation and/or financial loss due to non-Compliance of internal MRV & CO guidelines, code of conduct, policies and standards.
- Collective Risk: risk due to losses and effective changes in political, cultural, social, economic or financial conditions.
- Credit Risk: loss resulting from unpaid receivables from clients, financial institutions, financial guarantors, among others.

- Image Risk: risk of loss or damages to the MRV & CO brand in which the brand has been damaged in the eyes of society, stakeholders and/or authorities due to alleged or proven negative publicity, and customer dissatisfaction with the overall customer experience while dealing with the company.
- Legal/Regulatory Risk: risk resulting from fines, penalties or financial restitution due to issues brought about by supervisory oversight and control departments, in addition to losses from unfavorable legal rulings.
- Liquidity Risk: risk resulting from the lack of financial agility in order to honor financial commitments on the proper due dates, or honoring commitments while bearing significant financial penalties due to lack of liquidity.
- Market Risk: risk as a result of market pressures to alter the prices of our products and fluctuations in the cost of raw materials used in operations, or significant loss due to increased competition.
- Operations Risk: risk resulting from the lack of, deficiency or inadequate internal processes, personnel and systems, or by external forces.

4. RESPONSIBILITIES

Each and every staff member shall be held accountable for their commitment to share and uphold the highest levels of Risk Management culture and this behavior should endeavor to contribute to effective managerial procedures.

Based on the aforementioned premise, the company's Risk Management structure should take issues such as corporate governance and management into consideration bearing the following responsibilities:

4.1. Board of Directors

- Approve overall guidelines in MRV & CO's Risk Management Policy
- Define functional structure and roles for committees and departments directly involved with Risk Management
- Monitor risks

- Approve and assess updates to the company's overall Strategic Risk Management

4.2. Governance, Risk Management, Compliance and Privacy Committee

- Evaluate and monitor the company's exposure to risk, overseeing and supervising Risk Management processes
 - Guarantee commitment, strengthening and day-to-day functioning of the company's system of internal controls, aiming to reduce, eliminate and/or mitigate existing risks, in addition to preventing potential risks by presenting recommendations to improve policies, practices and procedures
 - Foster a strong culture of Risk Management and Internal Controls within the company, aiming to ensure thorough compliance with the current applicable laws, standards and regulations
 - Discuss recommendations created by the Risk Management Department
 - Assess updates to the company's overall Strategic Risk Management

4.3. Presidency and Executive Board

- Support decisions made by the Board of Directors and the Governance, Risk Management, Compliance and Privacy Committee, seeking to minimize risks
 - Support and foster a strong culture of Risk Management within MRV & CO
 - Establish the tolerable levels of risk according to the general guidelines as defined by the Board of Directors, based on risk x return
 - Grant resources (HR, Financial or Technology) in order to implement effective, strategic internal controls in order to mitigate risks

4.4. Risk and Internal Auditing

- Create, review and foster awareness of the MRV & CO Risk Management Policy

- Lend support in identifying, assessing, communicating and handling Strategic Risk Management and processes
- Periodically report to the Senior Management on the results of Strategic Risk Management and process assessment
- Monitor the development, implementation and performance of the Risk Management structure including suggesting improvements
- Recommend mechanisms for control and action plans to mitigate any risks identified and design business continuation plans
- Oversee the effectiveness of internal controls, indicators, actions for mitigation, proposals, implementation and assessing the level of compliance with processes
- Monitor the tolerable level of Risk
- Foster a strong culture of Risk Management, internal controls and continuation of business proceedings

4.5. Area managers related to Risk Management and processes

Implement internal controls recommended by the Risk Management Department

Ensure the implementation of action plans to mitigate risks

Be proactive in identifying risks and communicating them to the Risk Management Department, in addition to identifying missed opportunities

Apply Risk Management methods

Identify, document, register and communicate all operational losses to the Risk Management Department as a result of the failure, deficiency or inadequacy of internal processes/controls, HR and systems, or originating from external events

Comply with the guidelines of Senior Management regarding Risk Management and tolerable limits of risk

Ensure the veracity and scope of information acquired from indicators or controls provided to the Risk Management Department

5. RISK MANAGEMENT GUIDELINES

The process of Risk Management at MRV & CO has been defined based on best practices within the market and seeks to ensure the following objectives:

MRV & CO Risk Management has been aligned with the company's Strategic Risk Management and remains in line with the company's efforts to build sustainable pillars for business operations

MRV & CO Risk Management takes both negative impacts and opportunities into consideration

The existence of structured Risk Management processes that must ensure, above all else, risks and their impacts are considered in the decision-making process

5.1. Identifying Risks

The process of identifying risks originates from the different activities carried out on a variety of levels within the organization. Risks may be identified through mapping out potential events, reviews of internal and external audits, evaluations of management, assessment reports, etc.

At this stage, a host of internal and external factors must be taken into consideration. Identifying risks may be carried out by each and every individual of a given process. This activity takes place through a structured process:

- Periodic interviews with company departments and/or individuals from those departments in order to identify new risks
- Benchmarking with other companies listed on the Novo Mercado
- Consultations with auditors, regulatory departments, the market and other interested parties

5.2. Risk Assessment

MRV & CO business activities may be negatively impacted resulting in loss of business, as well as positively impacted as a result of taking advantage of subsequent risk opportunities.

At this stage, risks that have been identified are assessed to measure the level of exposure to which the company is subject. This assessment should be carried out based on three variables: probability of occurrence for a given event, impact (potential or inherent) created if the risk should materialize and maturity and efficiency of existing controls.

Each variable for risk will receive a score that may vary from high, to moderate or low. As a result, the higher the risk to exposure, the worse the scenario; conversely, the lower the score, the better the scenario.

Each variable employed in the risk assessment process has had some specific elements defined as to how they contribute to the risk assessment in order to ensure that assessment process is more objective, and less subjective. The following are some of the elements for each variable:

- Probability: a record of the occurrence of risk, over the last 6, 12 and 18 months (high, moderate and low, respectively) and the evolution of indicators
- Impact: Financial Risk (value of finances exposed), Image Risk (scope of impact), Inherent Risk (built into our business) and Regulatory Risk (risk of non-compliance of regulatory or legal issues and standards)
- Control: existence or deficiency of control, maturity of control, automation and efficiency of controls

After carrying out complete assessment of the three variables regarding each risk, an average score will be obtained.

5.3. Risk Management

MRV & CO employs a three stage line of defense in order to manage the company's risk. Each line of defense bears its own roles and activities defined as follows:

- First line of defense: this stage is carried out by every business department and their support, all of whom must ensure effective Risk Management within the scope of their direct responsibilities within the organization

- Second line of defense: this stage falls under the care of the Risk Management and Compliance Department who acts as a consultant and independent agent working alongside business areas offering support, aiming to evaluate and report on Risk Management.
- Third line of defense: this stage is carried out by the Internal Auditing Department, aiming to supply objective, independent opinions on Risk Management processes, the effectiveness of internal controls and corporate governance

General monitoring of risks shall be periodically assessed by the Risk Management Department and reported to the Senior Management and Governance, Risk, Compliance and Privacy Committee.

5.4. Communication Of Risks

Communication must ensure thorough engagement and awareness of individuals involved so that they may effectively implement preventative/corrective measures, methods of detection and remediation of risks

Strategic risks are overseen by the Risk Management Department and reported to the Governance, Risk, Compliance and Privacy Committee.

Risk processes and procedures are overseen by the Risk Management Department and reported to the Senior Management upon finalizing and issuing an assessment report

5.5. Handling Risk

After identifying and assessing a situation, an efficient way to handle the issue through a proper risk assessment must be defined, in addition to a subsequent method of handling risk based on the level of severity and tolerable level of risk. This risk assessment should support the definition and prioritization of efforts regarding action plans and/or projects in accordance with the guidelines below:

Risks may be taken on, according to discussions and decisions made by the Senior Management and the Board of Directors, not stated in the need for processes and control

When risks are unforeseen, we must endeavor to adjust processes and controls in order to mitigate risk

Mitigation strategies and strategic risk management controls shall be discussed and approved by the Governance, Risk, Compliance and Privacy Committee and set into operation by all departments involved, with the oversight of the Risk Management Department

Mitigation strategies and strategic risk management controls shall be discussed and approved by the Senior Management and department managers involved, with the oversight of the Risk Management department

Each strategic risk shall have a defined list of contingencies set out in order to guarantee continuity of our business in the event of exposure to risk, aiming to minimize future damages

6. DEFINITIONS

Some of the terms used in this policy may be defined and understood as the following:

- **Tolerable Risk:** the level of risk that an organization is willing to except while attempting to achieve its objectives. The definition of tolerable risk should take the company's capacity to assume risk, the company's ability to tolerate risk, in addition the company's risk profile into consideration.
- **Control:** a coordinated group of methods and measures adopted by every department within the organization to protect company's assets, verify the accuracy and veracity of data, promote efficient operations, guarantee compliance with policies defined by the Board of Directors, in addition to reducing exposure to inherent risks as a result of business activities, aiming to prevent unwelcome events or correct procedures to identified exposure

- Impact: the extent to which MRV & CO may be exposed or unprotected from events or risks and their effects, before and after assessment of the respective risk, whether tangible or intangible in nature
 - Strategic Risk Matrix: the document formalizing the inherent strategic risks for MRV & CO as a result of the company's business dealings
 - Action Plan: a plan that defines the actions necessary to manage control, metrics and/or mitigate risks by identifying deficiencies throughout the assessment process as regards control and/or processes
 - Contingency Plan: a set of measures that must be adopted should events or risks materialize in order to minimize the negative consequences to MRV & CO, aiming to bring vital processes under control, or reduce them to a minimal acceptable level
 - Probability: this term is used to estimate the probability for an event to materialize or occur
 - Process: a set of activities that must be analyzed for risk and control whose impact may affect expected results
 - Risk: the possibility of an event occurring, originating from internal or external sources, capable of adversely affecting MRV & CO from achieving its objectives, as well as support the decision-making process when presented with an opportunity
 - Strategic Risk: focuses on the potential risks, and should risks occur, how they may impact strategic company objectives
 - Risk Processes: the possibility of losses resulting from external events or failures, deficiency or inadequate internal processes, HR or systems

7. PROCEDURES

Any questions or concerns regarding the application of the Risk Management Policy should be sent to the Risk Management Department.

8. HISTORY OF REVISIONS/DRAFTS

Date	Revision	Description	Reviewed by:
25/04/2016	001	Risk Management Policy	RISK MANAGEMENT AND INTERNAL CONTROL COORDINATION
19/06/2017	002	Risk Management Policy	RISK MANAGEMENT AND INTERNAL CONTROL COORDINATION
05/03/2021	003	Risk Management Policy	RISK MANAGEMENT AND INTERNAL CONTROL COORDINATION