

Risk Governance and Organizational Resilience in the Agri-Food Sector: Empirical Evidence from a Multinational Company

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Abstract :

Organizations increasingly face complex and interconnected crises that can significantly affect their stability, performance, and long-term sustainability. Contrary to the perception that crises emerge suddenly, they often result from a gradual incubation process characterized by hidden vulnerabilities and warning signals. This study examines the role of internal audit function as a proactive third line of assurance in supporting crisis management within a multinational agri-food company. Adopting a qualitative case-study approach, the research draws on crisis management theory, the COSO Enterprise Risk Management (ERM) framework, and the Institute of Internal Auditors (IIA) Standards. The findings indicate that internal audit contributes to the identification of emerging risks, facilitates cross-functional information sharing, and provides independent oversight during crisis situations. Moreover, internal audit supports post-crisis reviews and organizational learning, helping the organization strengthen its preparedness for future disruptions. Overall, the study demonstrates that internal audit plays a strategic role in enhancing organizational resilience and improving crisis response capabilities.

Key Words: Agri-Food Sector; Crisis Management; Organizational Resilience; Risk Governance; Weak Signals.

JEL Classification : Q13, G32, L22, Q18

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Introduction:

Today's economic environment is marked by persistent uncertainty, where organizational stability has become the exception rather than the rule. Health-related, geopolitical, financial, and logistical crises are no longer isolated disruptions; they have become a recurring feature of the business environment. As volatility continues to increase, traditional management approaches based on linear forecasting and retrospective compliance checks are proving less effective. Organizations are increasingly confronted with what complexity scholars describe as *hyper-complex crises*, characterized by strong interdependencies, rapid escalation, and the breakdown of established decision-making frameworks.

The agri-food industry is particularly exposed to these challenges. In addition to operating under stringent regulatory requirements designed to protect consumer

health, the sector remains highly vulnerable to disruptions in global supply chains, climate-related pressures affecting raw materials, and reputational risks amplified by social media. For multinational agri-food companies, a crisis can affect far more than short-term financial performance. It may also undermine social legitimacy, brand value, and long-term legal viability. As a result, the ability to anticipate and manage risks has become a strategic necessity.

Traditionally, organizations have entrusted crisis management to dedicated crisis management teams that activate only when emergencies occur. Consequently, this approach has remained largely reactive rather than preventive. At the same time, internal audit has long been viewed primarily as a function responsible for reviewing compliance with accounting and financial requirements after the fact. Recent developments in corporate governance, however, particularly those promoted by the Institute of Internal Auditors (IIA) and enterprise risk management frameworks such as COSO ERM, have broadened expectations of the function. Internal audit is now increasingly expected to create value by providing a cross-functional perspective, evaluating the effectiveness of early warning mechanisms, and supporting the organization throughout the different stages of a crisis.

Against this backdrop, this study addresses the following research question

To what extent, and through which operational mechanisms, can the internal audit function play a significant role in the crisis management process of a multinational agri-food company?

To answer this question, the study pursues two main objectives. First, it examines the theoretical links between internal audit, enterprise risk management (ERM), and crisis management. Second, it applies this framework through an in-depth case study of M.I, enabling a comparison between theoretical concepts and the realities faced by a multinational company dealing with crises originating both inside and outside the organization. The central hypothesis of the study is that, when supported by modern risk management frameworks, internal audit extends beyond its traditional assurance role and becomes a source of organizational insight capable of identifying early warning signs and helping maintain effective governance during periods of uncertainty.

I. Literature Review and Theoretical Framework

1. Crisis, their management and Internal Control:

To examine the contribution of internal audit to crisis management, it is first necessary to establish the theoretical foundations of the study. This literature review explores the key concepts related to crisis management, organizational resilience, risk governance, and internal audit.

1.1. Foundations of Crisis Management in Organizations

a. Epistemological Perspective and Conceptualization of Crisis; The term *crisis* originates from the Greek word *krisis*, meaning judgment, decision, a turning point, or a moment of separation. In management studies, a crisis should not be viewed simply as an isolated, sudden, and unpredictable event. According to Roux-Dufort (2003), a crisis results from a gradual process of organizational destabilization during

which vulnerabilities and anomalies accumulate until a triggering event disrupts the entire system. Similarly, Lagadec (1993, 2009) argues that., a crisis is characterized by increasing uncertainty, the loss of established points of reference, and the inability of traditional management and control mechanisms to function effectively.

A crisis differs from an incident or accident because of its systemic nature. While an accident may damage assets without fundamentally affecting organizational structures, a crisis challenges the organization's culture, identity, and managerial assumptions. It places decision-makers under intense pressure, a situation that Hermann (1963) associates with three main characteristics: a perceived threat to key organizational objectives, limited time for response, and a strong element of surprise.

b. From Traditional Crises to Contemporary Mega-Crises: Recent economic and geopolitical developments have broadened the traditional understanding of crises. Boin, McConnell, and 't Hart (2021) introduced the concept of the *mega-crisis* to describe events characterized by large-scale systemic effects, high levels of uncertainty, and cascading consequences across multiple sectors. These crises are no longer confined to individual organizations; they affect supply chains, financial systems, digital infrastructure, and public institutions simultaneously.

The COVID-19 pandemic clearly illustrated this new category of crisis and exposed the limitations of traditional risk management approaches. In such environments, organizations require greater flexibility, coordination, and forward-looking capabilities. Furthermore, beyond responding quickly to unexpected events, organizations must preserve their ability to make informed decisions despite uncertainty and ambiguity

c. The Genesis and Dynamics of Crisis Incubation: Contemporary research generally views crises as processes that develop through successive stages. Pauchant and Mitroff (1992) emphasize the importance of the incubation phase, during which underlying problems gradually emerge. These may include technical shortcomings, cultural drift, communication failures, or compliance issues. From this perspective, a crisis rarely occurs without warning; rather, it results from the sudden manifestation of vulnerabilities that have been developing over time.

The crisis process comprises four main stages:

-Incubation phase: gradual accumulation of weaknesses and emergence of weak signals.

-Acute phase (triggering stage): a triggering event disrupts existing balances and brings the crisis into public view.

-Chronic phase: the organization operates under disrupted conditions, manages secondary impacts, and seeks to stabilize its activities.

-Post-crisis phase: recovery begins, damages are assessed, and lessons learned are incorporated into future practices.

Understanding this process is essential because it highlights the possibility of intervention before a crisis reaches its most critical stage. Effective control and audit mechanisms can help alter the trajectory of risk before significant damage occurs.

d. Key Characteristics and Impacts on Organizational Capital: Corporate crises are often associated with a rapid acceleration of events, overloaded communication channels, growing interdependence among risk factors, and intense scrutiny from regulators and public opinion. Their effects can spread quickly; for example, a local operational failure may evolve into a major financial problem or a reputational crisis that affects shareholder value.

The consequences of a crisis extend across several dimensions. Financial impacts include direct costs such as product recalls, fines, and compensation payments, as well as indirect costs such as lost market share and higher insurance premiums. Human impacts may include stress, uncertainty, and declining trust in leadership. Intangible assets—including reputation, customer confidence, and brand value—are often the most vulnerable, particularly in the agri-food sector where consumer safety is a primary concern.

e. Organizational Resilience as a Response to Contemporary Crises: Recent studies identify organizational resilience as a key capability for operating in environments characterized by uncertainty, complexity, and recurring disruptions. Resilience is no longer limited to the ability to withstand shocks; it also involves adapting, learning, and evolving in response to changing circumstances.

Duchek (2020) defines organizational resilience through three complementary capabilities: **anticipation, adaptation, and learning**. Anticipation enables organizations to recognize potential threats before they materialize. Adaptation supports the rapid adjustment of resources and processes during periods of disruption. Learning allows organizations to draw lessons from past experiences and improve future preparedness.

This perspective aligns closely with the objectives of modern internal audit, which seeks to identify vulnerabilities, assess risk management practices, and encourage the continuous improvement of organizational processes.

Hillmann and Guenther (2021) similarly argue that resilience is a strategic capability that enables organizations to maintain essential functions while adapting to unstable environments. According to their analysis, resilient organizations are not necessarily those that experience fewer disruptions, but those that respond and adapt more effectively when disruptions occur. Within this context, internal audit can play an important role in strengthening resilience across the organization.

f. Crisis Management Mechanisms and the Activation of Crisis Management Teams: Modern crisis management relies on clearly defined procedures and dedicated response structures, particularly the crisis management team. This team typically brings together representatives from senior management, operations, legal affairs, human resources, communications, and risk management. Its purpose is to centralize information, coordinate emergency decisions, and manage communication with stakeholders.

Organizations commonly use tools such as business continuity plans (BCPs), crisis response plans, decision trees, and emergency contact lists. However, having these tools in place does not guarantee their effectiveness. Their value depends on regular

testing, simulations, stress exercises, and continuous updates. This raises an important question regarding the independent assessment of these mechanisms, a role that internal audit performs.

1.2. Internal Control Mechanisms: The Conceptual and Regulatory Framework of Internal Audit

a. The Evolution of Internal Audit: Over the past five decades, the internal audit function has undergone a profound transformation. Initially focused on fraud detection and verifying compliance with accounting and financial procedures, the function has gradually evolved in response to changes in corporate governance and major financial scandals such as Enron, WorldCom, and the subprime crisis.

Today, the Institute of Internal Auditors (IIA) defines internal audit as an independent and objective assurance and advisory activity designed to add value and improve organizational performance. Modern internal auditors assess not only financial controls but also the effectiveness of processes, governance structures, and risk management systems. As a result, the internal audit function has evolved from a control-oriented activity into a strategic partner for boards of directors and audit committees.

b. The Digital Transformation of Internal Audit: Technological developments are reshaping the way internal audit operates. According to Eulerich and Bonrath (2025), digitalization is moving the function beyond traditional retrospective reviews toward a more continuous and predictive approach.

The use of Big Data, artificial intelligence, and advanced analytics enables auditors to identify anomalies, emerging risks, and weak signals in real time. These technologies enhance organizations' ability to anticipate crises, respond more quickly to unexpected events, and strengthen overall resilience.

c. The Three Lines Model : To clarify responsibilities within organizational governance, the IIA introduced the Three Lines Model.

- The first line** consists of controls performed by operational management, which is responsible for identifying, managing, and monitoring risks in day-to-day activities.

- The second line** includes the various functions established by management to oversee risk management and regulatory compliance, such as risk management, compliance, and internal control functions.

- The third line** provides independent and objective assurance regarding the achievement of organizational objectives. This assurance is delivered by the internal audit function, which evaluates the effectiveness of governance, risk management, and internal control processes. (IIA, 2013)

The model highlights the complementary roles of the three lines while emphasizing the independence of internal audit.

d. International Standards and Audit Methodology: The IIA's International Professional Practices Framework (IPPF) guides the practice of internal audit, which includes the Core Principles, the Code of Ethics, and the International Standards.

A typical audit engagement follows four main stages:

- Planning:** Identification of risks and preparation of the audit program.

-Fieldwork: Collection of evidence through interviews, testing, observations, and data analysis.

-Reporting: Communication of findings, risks, and recommendations.

-Follow-up: Verification that agreed corrective actions have been implemented.

This structured methodology enhances the credibility and reliability of audit results, particularly during periods of uncertainty.

1.3. From Risk Management to Crisis Management: Integrating COSO ERM and Weak Signals

The COSO framework is one of the most widely used models for internal control and risk management. While the original COSO framework focused mainly on financial controls, COSO ERM expanded its scope to include strategic and operational risks. The 2017 COSO ERM framework integrates risk management with organizational strategy and performance, emphasizing that risk management should support decision-making and value creation rather than serve solely as a compliance function.

A fundamental component of COSO ERM is **risk mapping**, which evaluates risks according to their **probability of occurrence (P)** and **potential impact (I)**. Risk criticality (**RC**) is generally calculated using the formula $RC = P \times I$. To ensure consistency in risk assessment, organizations commonly use a standardized five-point scale ranging from **Very Low (1)** to **Very High (5)**. By linking qualitative assessments to quantitative scores, this approach facilitates the prioritization of risks and supports the allocation of resources to the most critical exposures. After taking existing controls into account, organizations assess residual risks and determine appropriate mitigation measures. Nevertheless, traditional risk-mapping tools may prove insufficient for identifying rapidly emerging risks that often precede major crises.

The concept of **weak signals**, introduced by Ansoff (1975), refers to early, fragmented, and often ambiguous information that may indicate significant future changes or emerging threats.

Unlike obvious indicators of risk, weak signals require careful interpretation and analysis. Many crises occur not because information is unavailable, but because organizations fail to recognize its significance. Information may exist within a specific department or operational unit but never reach decision-makers due to organizational silos, communication barriers, or managerial denial.

In this context, internal audit can play an important role by providing a cross-functional perspective, facilitating information sharing, and helping organizations identify emerging risks before they develop into full-scale crises.

While previous studies have examined organizational resilience, crisis management, and enterprise risk management, relatively few have explored the specific mechanisms through which internal audit contributes to organizational resilience during crisis situations. Existing research generally recognizes internal audit as a governance and assurance function, but its role across the different stages of the crisis life cycle remains underexplored, particularly in multinational companies operating in high-risk sectors such as the agri-food industry. This study seeks to address this

gap by examining how internal audit contributes to crisis management throughout the crisis life cycle within a multinational agri-food company.

II. Research Methodology

1. Epistemological Positioning and Choice of a Qualitative Approach

This study adopts a pragmatic constructivist perspective, viewing organizational crises and the role of internal audit as the outcome of interactions between individuals, management practices, and governance mechanisms operating within a specific context. Following the approach advocated by Hlady-Rispal (2002), the researcher adopted a contextualized perspective to gain a deeper understanding of a complex phenomenon that cannot be fully captured through quantitative methods alone.

Methodologically, the study adopts a qualitative single-case study design. Data collection benefited from the researcher's immersion in the field through a traineeship within an external audit firm, which provided access to the organization's risk management and governance practices. The researcher maintained an observational rather than interventionist role throughout the study. This approach is particularly well suited to addressing “how” and “why” research questions, as it allows for the examination of a contemporary phenomenon within its real-life setting using multiple sources of evidence.

The selection of the M.I Group as the case study follows Yin's (2018) recommendations regarding the use of a single case study when investigating a critical or revealing case. The organization provides a particularly relevant research context due to the maturity of its internal audit function, its exposure to a variety of crises—including health-related, social, logistical, reputational, and geopolitical crises—its adoption of a risk management framework inspired by COSO ERM, and the availability of organizational data that is rarely accessible for academic research. The objective of this study is not to achieve statistical generalization but rather analytical generalization. The aim is to identify and understand the mechanisms through which internal audit contributes to crisis management and supports the development of organizational resilience.

2. Research Setting: Immersion within the M.I Group

The researcher conducted the study within M.I, a multinational company operating in the agri-food industry and internationally recognized for its leading brands. With manufacturing and commercial operations across five continents, the group offers a particularly valuable setting for examining crisis management practices, given the complexity of its supply chain, the strict health and safety standards governing its activities, and the maturity of its internal governance framework.

Direct access to internal audit teams, risk management professionals, and operational managers enabled a prolonged period of immersion between 2019 and 2022. This period coincided with significant economic and geopolitical disruptions, providing a unique opportunity to observe how the organization responded to different types of crises and adapted its management and governance practices accordingly.

3. Data Collection and Analysis Procedures

To strengthen the validity of the research and ensure the robustness of the findings, the study adopted a data triangulation strategy. The empirical investigation focused on organizational events and crisis situations that occurred between 2019 and 2022. The study relied on three complementary sources of information:

-Documentary Analysis: The researcher reviewed internal documents, including the Group's Internal Audit Charter, crisis management procedures, the consolidated risk map, internal audit reports issued during the study period, and minutes of Audit Committee meetings. A documentary review grid guided the analysis of risk governance, crisis management, internal audit activities, and organizational learning.

-Semi-Structured Interviews: The researcher conducted two in-depth semi-structured interviews with internal auditors from the Group. In addition, the researcher held several shorter interviews and informal discussions with the Risk Manager and the Management Controller. The interview protocol included open-ended questions on risk identification, crisis preparedness, crisis response, and post-crisis learning.

-Participant Observation: The researcher observed post-crisis review sessions (lessons learned reviews) and crisis management simulation exercises conducted at key industrial sites. An observation grid guided the collection of data on decision-making processes, information-sharing practices, and interactions among governance actors. The researcher maintained an observational role and did not participate in managerial decision-making.

The researcher analyzed the collected data through thematic content analysis and compared the findings across data sources using triangulation.

III. Empirical Study: The Case Of The M.I Group In Times Of Crisis

1. The M.I Group: Company Overview, Strategy, and Performance Indicators

Founded in France more than a century ago, M.I has grown into a global leader in branded cheese products and has successfully diversified into the healthy fruit-based snack market. At the time of writing (2026), the Group is recognized for its resilient business model built on strong industrial capabilities—with more than 30 production sites worldwide—and a brand strategy focused on nutritional innovation and sustainable development.

From a financial perspective, the Group has maintained solid growth despite significant volatility in production costs, particularly those related to milk, packaging materials, and energy. Its overall performance depends on maintaining stable operating margins while continuing to invest heavily in the digital transformation of its manufacturing facilities and the decarbonization of its logistics network. In this context, even a minor operational disruption—such as microbiological contamination, a port blockage, or a labor dispute—can have an immediate impact on consolidated EBITDA, making effective internal control systems essential to protecting financial performance.

a. Empirical Findings from the Interviews: The analysis of the interviews, combined with field observations and internal documentation, highlights four main ways in which internal audit contributes to crisis management within the M.I Group. First, the internal audit function supports the early detection of weak signals by bringing together information from different areas of the organization. Interview participants noted that certain operational alerts, initially viewed as isolated incidents, were later recognized as early indicators of potential crises thanks to the broader perspective provided by internal audit. As one auditor explained: *“Individually, some incidents appeared insignificant. However, when we consolidated information from different functions, we were able to identify patterns that pointed to a potentially larger issue.”*

Second, the internal audit function helps improve coordination across functions by facilitating the flow of information between operational departments, quality management, human resources, supply chain teams, and risk management. This coordinating role is particularly valuable during the early warning and crisis assessment stages.

Third, the interviews indicate that internal audit plays an important monitoring role during crisis situations by helping ensure that critical controls remain in place despite operational pressure. This oversight reduces the risk of poor decision-making, non-compliance, and loss of control over key processes. According to one interviewee: *“When operations are under pressure, there is always a risk that some controls may be bypassed. Internal audit helps ensure that essential safeguards remain effective even during emergencies.”*

Finally, the internal audit function contributes to organizational learning through its involvement in post-crisis reviews and lessons-learned exercises. Recommendations resulting from these reviews have helped enrich the organization's risk map, strengthen business continuity plans, and improve preventive measures.

Taken together, these findings suggest that the role of internal audit extends beyond its traditional assurance function. It contributes to organizational resilience by supporting anticipation, coordination, risk management, and continuous learning.

b. Historical Analysis and Classification of Crises Experienced (2019–2022): A review of the Group's experience between 2019 and 2022 shows exposure to a wide variety of crises. To better understand their underlying causes, the analysis groups these events into two broad categories:

- Internal crises, resulting from weaknesses in the management or control of operational processes.
- External crises, triggered by environmental factors outside the company's direct control but with significant consequences for its operations and supply chains.

Table 1 provides a structured overview of the crises experienced during the period, highlighting their origins, impacts, and the organization's ability to identify early warning signals.

Table 1: «Classification and Analysis of Crises Experienced by M.I(2019–2022)»

Type of Crisis	Origin	Main Impacts	Weak Signal Detection
Food Safety and Product Quality Crisis (Internal)	Microbiological contamination on a packaging line resulting from inadequate preventive maintenance.	Large-scale product recalls across three European markets, direct logistics costs estimated at €4.2 million, temporary supply disruptions, and significant risk to brand reputation.	Low(2). Warning signs existed through minor quality-control alerts, but they were not consolidated by the plant's information system.
Online Reputation Crisis (External)	Viral campaign launched by an environmental NGO criticizing the environmental impact of individual packaging.	Immediate 6% decline in sales within the flagship product segment among millennials, negative media exposure, and urgent revision of the company's CSR strategy.	Very Low(1) Lack of automated social listening tools capable of identifying viral trends before the crisis escalated.
Social and Industrial Crisis (Internal)	Escalation of annual labor negotiations leading to the complete shutdown of a strategic production site.	Production halted for 14 days, operating losses estimated at €2.8 million, major delivery delays, and a lasting deterioration of workplace relations.	High(4). Human Resources had already identified signs of a deteriorating social climate, increasing absenteeism, and rising employee turnover.
Geopolitical or Country Risk Crisis (External)	Sudden political instability in a major export market, combined with restrictions on international financial transactions.	Border delays, payment defaults by distributors, €1.5 million in provisions for doubtful receivables, and forced rerouting of supply flows.	Moderate(3). Macroeconomic risk indicators were available but were not translated into operational contingency plans.
Natural Disaster (External)	Severe flooding affecting an external logistics and storage platform.	Destruction of inventory valued at approximately €900,000 and emergency activation of the Business Continuity Plan (BCP).	Very low(1). The event was a force majeure incident that could not reasonably be anticipated in the short term.

Source: Author's own work

The qualitative ratings presented in Table 1 are aligned with the five-point assessment scale introduced in Section 1.3. Higher ratings indicate a stronger organizational capacity to detect and interpret weak signals before a crisis materializes, whereas lower ratings reflect limitations in the identification or escalation of early warning indicators.

c. Crisis Life Cycle and Management Process Within the M.I Group:

Observations conducted within the M.I Group show that **crises** do not unfold in a random or chaotic manner. Instead, they typically follow a structured sequence consisting of four distinct phases. Understanding this process is essential for

assessing the role of internal audit, as the effectiveness of control mechanisms depends largely on their alignment with the different stages of a crisis.

- **Phase 1 :Anticipation and Early Detection:** This phase is characterized by apparent stability, although the conditions that may eventually lead to a crisis can already be developing beneath the surface. At M.I, regulatory monitoring systems, quality audits, and the organization's enterprise risk management (ERM) framework support this stage. The main challenge is to connect different pieces of information—such as an increase in logistics complaints combined with political tensions in a sourcing region—to identify emerging crisis scenarios. The analysis suggests that organizational silos remain the primary obstacle to this integrated view of risk.
- **Phase 2: Alert, Assessment, and Crisis Declaration:** Once an anomaly exceeds predefined operational thresholds, the formal alert process begins. The Group applies a structured protocol based on criteria such as financial impact, consequences for human health, and media exposure. When an anomaly exceeds critical thresholds, senior management officially declares a crisis, immediately notifies relevant stakeholders, and activates crisis coordinators. During this phase, decision-makers must act quickly. Even a delay of a few hours in assessing microbiological contamination can transform a manageable operational issue into a large-scale public health crisis
- **Phase 3: Operational Crisis Management:** Once a crisis has been officially declared, the crisis management team assumes operational responsibility for the affected area of the business. Normal governance procedures are temporarily adapted to allow faster decision-making and response. The CMT coordinates corrective actions on the ground, such as inventory containment measures and production shutdowns, while also managing communications with regulators, government authorities, and the media. Direct observation revealed a phenomenon often referred to as *tunnel vision*. Under intense pressure, decision-makers tend to focus exclusively on immediate priorities and may pay less attention to essential controls. This can increase exposure to fraud, compliance failures, or significant strategic mistakes.
- **Phase 4: Post-Crisis Review and Organizational Learning:** Once the organization contains the immediate threat, it enters the recovery phase, gradually dissolves the crisis management team, and resumes routine governance processes. At M.I, this stage is formalized through the REX (Lessons Learned) process. The objective is to review the sequence of events, identify the root causes of the crisis, assess the effectiveness of the response, and update business continuity plans accordingly. In practice, however, operational pressures often encourage managers to move quickly back to normal business activities. As a result, the time devoted to reflection and learning may be reduced, limiting the organization's ability to fully capitalize on the lessons provided by the crisis.

2. The contribution of internal audit function to crisis management across different types of crises

The internal audit function plays a vital role in crisis management by helping organizations identify risks, strengthen preparedness, monitor emerging threats, and capture lessons learned after a crisis, regardless of whether the crisis originates from internal or external factors.

a. Analysis of Internally Driven Crises: Internally driven crises generally stem from weaknesses in operational processes, compliance failures, human factors, or deficiencies in internal controls.

- **Product Quality and Food Safety Crises:** In the agri-food industry, food safety incidents are among the most serious risks an organization can face. At M.I., management oversees food safety through a structured system based on the HACCP (Hazard Analysis and Critical Control Points) methodology. However, even with strong controls in place, no organization is completely immune to risk. When microbiological contamination occurs in a production facility, the situation can escalate rapidly and have significant operational, financial, and reputational consequences. Internal audit function can make a valuable contribution in such situations, particularly through its preventive role. Before a crisis occurs, internal auditors assess the effectiveness of operational processes and the reliability of existing control measures. By reviewing areas such as preventive maintenance programs and sanitation procedures, they help ensure that potential weaknesses are identified and addressed before they become major problems. For example, during one audit, recurring delays in replacing sealing gaskets on a production tank were identified. Initially, auditors classified this issue as a routine maintenance concern. However, the auditors recognized it as a weak signal that could increase the risk of contamination. By highlighting the issue and recommending corrective action, internal audit helped eliminate a vulnerability that might otherwise have developed into a serious food safety incident.
- **Social and Industrial Crisis: Production Site Disruptions :** Social crises, such as strikes or blockages at production sites, often result from strained labor relations or poorly managed organizational change. At M.I., where social responsibility and employee well-being are central to the company's values, these situations can have a significant impact on both employee morale and business operations. Internal audit supports the management of social risks by providing an independent assessment of indicators that may reveal growing tensions within the workforce. By reviewing metrics such as absenteeism rates, staff turnover among frontline managers, the use of temporary workers, and the completion of annual performance reviews, auditors can detect warning signs that might otherwise go unnoticed. During one audit conducted at a site considered particularly vulnerable, several findings indicated increasing tensions between management and employees. The audit report highlighted the risk of a breakdown in communication and social dialogue, prompting senior

management to act. As a result, the Human Resources department implemented mediation and engagement measures at an early stage, helping address concerns and reducing the likelihood that the situation would escalate into a strike. This example illustrates how internal audit can serve as an early warning mechanism, enabling management to respond proactively to emerging social issues before they develop into a full-scale crisis.

- **Legal and Regulatory Crises:** As a multinational company, M.I. must comply with numerous regulations, including food safety, environmental, anti-corruption, and data protection requirements. A major compliance failure could lead to regulatory investigations, financial penalties, and reputational damage. In this context, internal audit provides independent assurance on the effectiveness of the company's compliance framework. Through regular audits, it evaluates whether key controls and procedures are properly implemented and operating as intended. For example, auditors regularly review procurement processes, assess compliance with anti-corruption policies, evaluate food safety and environmental controls, and test whistleblowing mechanisms. By identifying weaknesses before they result in violations, internal audit helps M.I. reduce legal and regulatory risks while supporting its commitment to ethical and responsible business practices.

b. Analysis of Externally Driven Crises: Externally driven crises are events that originate outside the organization but can still have a significant impact on its operations, reputation, and performance. For M.I., the main types of externally driven crises include the following:

- **Online Reputation Crises and Digital Activism:** In the era of social media, the reputation of a company such as M.I. can be affected within a very short period of time. Negative comments, misinformation, consumer complaints, or coordinated online campaigns can spread rapidly across digital platforms and influence public perception before the company has the opportunity to react. As a result, reputational crises have become an important external risk for multinational agri-food companies. Although the internal audit function is not responsible for managing public communication during such events, it plays a preventive role by assessing the effectiveness of the systems used to monitor and manage reputational risks. Through audit assignments, auditors can review social media monitoring tools, evaluate alert escalation procedures, and assess the preparedness of communication teams to respond to emerging online threats. For example, during a brand protection review, internal audit at M.I. assessed the company's digital monitoring processes and identified opportunities to strengthen the detection and escalation of reputational risks. The recommendations led to improvements in social media monitoring and reporting mechanisms, enabling management to identify potential issues more quickly and respond before they developed into major crises. By providing independent assurance on these processes, internal audit helps M.I. enhance its resilience to online reputation crises and protect consumer trust in its brands.

- **Geopolitical Crises and Supply Chain Disruptions:** As a multinational company, M.I. sources raw materials and distributes its products across various regions of the world, some of which may be exposed to geopolitical risks such as trade disputes, economic sanctions, political instability, currency fluctuations, or armed conflicts. These events can disrupt supply chains, affect financial transactions, and even threaten the safety of employees working in those areas. In this context, internal audit helps M.I. assess how well the organization is prepared to manage such disruptions. Through business continuity and supply chain audits, auditors evaluate whether appropriate measures are in place to reduce dependency on high-risk suppliers and ensure the continuity of critical operations. For example, they may review whether procurement teams have established alternative sourcing options for essential raw materials. Internal audit also examines the effectiveness of procedures designed to protect employees and company assets in potentially unstable regions. This includes reviewing emergency response plans, evacuation procedures, and the adequacy of political risk insurance coverage.

By identifying vulnerabilities and recommending improvements, internal audit supports M.I.'s ability to anticipate geopolitical challenges, maintain operational continuity, and respond effectively to external disruptions.

- **Climate, Environmental, and Force Majeure Crises:** Climate change has increased the frequency and severity of extreme weather events, including droughts affecting milk production, flooding of industrial facilities, and storms damaging transportation infrastructure. Although these crises are not caused by internal failures, they can significantly disrupt business operations and require a high level of organizational resilience. In this context, internal audit focuses on evaluating the robustness of Business Continuity Plans (BCPs) and Disaster Recovery Plans (DRPs). Experience has shown that many organizations possess formal continuity plans that have never been tested under realistic conditions and may therefore prove ineffective during an actual crisis. To address this issue, internal auditors assess not only the existence of continuity plans but also their practical effectiveness. Audit activities may include observing disaster recovery simulations, reviewing procedures for transferring IT operations to backup sites, verifying the redundancy of critical energy systems, and ensuring that logistics contracts contain priority-service clauses for emergency situations. By testing these arrangements in advance, internal audit helps transform resilience from a theoretical concept into a practical capability that supports business continuity when major disruptions occur.

3. Challenges and Limitations of Internal Audit in Crisis Management:

While the findings highlight the valuable contribution of internal audit to crisis management, this contribution is not without limitations. Several challenges may reduce the effectiveness of internal audit during crisis situations. First, the pace of a crisis can be significantly faster than the traditional audit cycle. Crises often require immediate decisions, whereas audit engagements generally rely on structured

planning, evidence gathering, and formal reporting procedures. As a result, audit recommendations may not always be available when urgent decisions must be made. Second, maintaining independence can become more complex during a crisis. Organizations may expect internal auditors to provide direct operational support to crisis management teams. Although such involvement may bring valuable expertise, excessive participation in operational decision-making could compromise the objectivity required for subsequent assurance activities. Third, the effectiveness of internal audit depends heavily on the quality and availability of information. In rapidly evolving situations, incomplete, delayed, or unreliable information may limit auditors' ability to assess risks and provide relevant insights. Finally, internal audit alone cannot prevent or manage crises. Its contribution remains complementary to that of operational management, risk management, compliance, and crisis management teams. Effective crisis management therefore requires strong coordination among all governance functions. These limitations suggest that while internal audit is an important contributor to organizational resilience, its effectiveness depends on clear governance arrangements, access to reliable information, and the preservation of its independence and objectivity.

4. The Role of Internal Audit Throughout the Crisis Life Cycle: discussion and synthesis :

The analysis of the different crisis scenarios identified within M.I. demonstrates the broad contribution of internal audit to crisis management, as illustrated below.

The findings of this study provide a clearer understanding of how internal audit contributes to crisis management within the M.I Group. Rather than operating outside the crisis management process, the internal audit function plays a meaningful role at each stage of the crisis life cycle. The results support the view that internal audit can strengthen organizational resilience by contributing in different ways before, during, and after a crisis.

Table 2 summarizes the role of internal audit throughout the different phases of the crisis life cycle within M.I. It highlights the main activities performed by internal auditors, their positioning in relation to operational management, the corresponding COSO ERM 2017 components, and their contribution to strengthening organizational resilience.

Table 2: « The Role of Internal Audit Across the Crisis Life Cycle»

Crisis Phase	Internal Audit Activities	Role and Positioning	COSO ERM Component 2017	Contribution to Organizational Resilience
1. Anticipation and Incubation	Review of industrial and logistics processes; assessment of key risk indicators (KRIs); identification of process weaknesses and organizational silos.	Independent advisor focused on prevention.	Governance and Culture; Performance	Helps identify vulnerabilities before they develop into crises.
2.Alert and Assessment	Evaluation of escalation procedures; review of the reliability and speed of information flows; verification of crisis activation criteria.	Assessor of information and reporting processes.	Performance ; Information, Communication & Reporting	Improves early detection and speeds up organizational response.
3. Crisis Response	Monitoring of critical controls; review of emergency decisions; protection of physical and intangible assets.	Independent observer maintaining oversight without direct operational involvement.	Review & Revision	Reduces the risk of poor decisions, fraud, and control failures during crises.
4. Post-Crisis Learning	Review of lessons learned processes (REX); follow-up of corrective actions; updating of risk maps.	Facilitator of organizational learning.	Continuous Improvement through Information, Communication & Reporting	Supports learning and strengthens preparedness for future crises.

Source: Author's own work

5. Theoretical Implications and Academic Contribution

The findings of this study reinforce existing research on organizational resilience and risk governance. The experience of the M.I. Group illustrates several elements of Duchek's (2020) resilience framework, which is built around three key capabilities: anticipation, adaptation, and learning. The results show that internal audit contributes to each of these dimensions by helping the organization identify risks before they materialize, providing independent oversight during crisis situations, and supporting the capture of lessons learned after a crisis.

The study also supports the perspective of Hillmann and Guenther (2021), who describe resilience as a strategic capability that enables organizations to withstand disruptions while maintaining performance and adapting to changing conditions. In the case of M.I., internal audit appears to be one of the key governance functions that strengthens this capability by improving risk awareness, control effectiveness, and organizational preparedness.

Furthermore, the findings highlight the growing relevance of digital auditing in crisis management. The increasing use of data analytics, artificial intelligence, and continuous auditing tools offers the internal auditors new opportunities to detect emerging risks, monitor critical indicators in real time, and provide more timely information to management during periods of uncertainty. These technological

developments expand the potential contribution of internal audit to crisis preparedness and decision-making.

Finally, this study contributes to the academic discussion on crisis management by demonstrating that organizational resilience is not solely based on an organization's ability to respond effectively to disruptive events. It also depends on its capacity to anticipate threats, maintain effective governance and control mechanisms, and continuously learn from experience. From this perspective, internal audit plays a strategic role in enhancing preparedness, supporting adaptation, and strengthening the long-term resilience of the M.I. Group.

This research extends the literature on organizational resilience by positioning internal audit as a governance mechanism that contributes simultaneously to anticipation, adaptation, and organizational learning. The findings suggest that internal audit not only supports risk management and compliance objectives but also plays an active role in strengthening organizational resilience throughout the crisis life cycle. In doing so, the study provides a practical and theoretical perspective on how internal audit can contribute to crisis preparedness, response, and continuous improvement.

Conclusion

This study examined the role of internal audit in the crisis management framework of a multinational agri-food company. The findings show that internal audit extends beyond its traditional assurance and compliance functions. Internal auditors contribute to crisis management by identifying emerging risks, evaluating the effectiveness of internal controls, and fostering organizational learning following disruptive events.

The case of the M.I. Group provides practical evidence of this contribution. The study shows that internal audit's value does not lie in making operational decisions during a crisis, but rather in providing independent assurance on risk management and control processes, challenging existing practices, and facilitating the flow of critical information across the organization. Through these activities, internal audit helps strengthen the organization's ability to anticipate, respond to, and recover from crisis situations.

Overall, the findings support the view that the internal audit function is an important contributor to organizational resilience, acting as a link between risk management, governance, and continuous improvement.

The study therefore answers the research question by demonstrating that internal audit contributes to crisis management throughout the entire crisis life cycle. Rather than acting as a direct crisis manager, internal audit creates value through its independent assessment of risks and controls, its support for organizational preparedness, and its role in promoting continuous learning. In the case of the M.I. Group, these contributions help strengthen the organization's ability to anticipate, respond to, and recover from crises, thereby enhancing its overall resilience.

Recommendations: This study proposes four recommendations for multinational agri-food companies and internal audit practitioners.

- **Strengthen the Integration of Internal Audit into Crisis Governance:** Organizations should clearly define the role of internal audit within their crisis management frameworks. While preserving its independence and objectivity, internal audit should have access to relevant information throughout a crisis. Its responsibilities should be formally incorporated into crisis management procedures and audit charters.
- **Invest in Continuous Auditing and Data Analytics:** Given the increasing speed and complexity of modern crises, internal audit functions should expand their use of data analytics and digital auditing tools. These capabilities can enhance the early detection of risks, improve monitoring processes, and provide management with timely information for decision-making.
- **Formalize the Follow-Up of Lessons Learned:** Post-crisis reviews should be integrated into a continuous improvement process rather than treated as isolated exercises. Internal audit can support this process by monitoring the implementation of corrective actions and ensuring that lessons learned are incorporated into future risk management and crisis preparedness activities.
- **Promote Cross-Functional Training:** Greater collaboration between internal auditors, risk managers, operational teams, and crisis management stakeholders should be encouraged through joint training programs and crisis simulations. Such initiatives can improve communication, strengthen coordination, and enhance overall crisis preparedness.

Limitations :

Several limitations should be considered when interpreting the findings of this study. First, this research is based on a single case study conducted within a multinational agri-food company. For confidentiality reasons, the company's identity has been anonymized and is referred to as M.I. Group throughout the study. In addition, some operational and crisis-related information could not be disclosed because it was considered sensitive. While these restrictions were necessary to protect confidential information, they limited the level of detail that could be included in the analysis and the generalizability of the findings.

Second, The immersion-based observational nature of the study may have influenced the interpretation of certain observations despite efforts to maintain objectivity.

Finally, the qualitative nature of the research does not allow for a statistical assessment of the impact of internal audit on crisis management performance. Future research could build on these findings by adopting quantitative or mixed method approaches and examining a larger sample of organizations across different sectors. Such studies would help strengthen the empirical evidence on the contribution of internal audit to crisis management and provide a deeper understanding of its role in enhancing organizational resilience.

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