

A theoretical reading of the financial accounting of industrial waste risks

MENDLI Salah Eddine

University of Abdelhamid Ibn badis Mostaganem, (Algeria),
salaheddine.mendli@univ-mosta.dz.

Received: 26/03/2025

Accepted: 05/05/2025

Published: 25/05/2025

Abstract:

The rising awareness of the company's economic players about the environmental problems is inducing to changes in the companies and their stakeholders' real behavior. This brings to adopt different actions protective of the environment. For this purpose, the implementation of these actions in the sustainable development context, generates significant expenses which must be accounted by traditional accounting. The intervention of accounting standard-setters is therefore required to promote, within IAS / IFRS, standards that take into account its environmental aspects, in order to help companies assess their environmental performance and inform investors about environmental risk.

Keywords : pollution ; industrial waste management ; Financial environmental accounting ; environmentalexpenditures ; Accounting Standards .

JEL Classification Codes :C10, R21

Corresponding author: Mendli Salah Eddine, **e-mail:** salaheddine.mendli@univ-mosta.dz.

1. INTRODUCTION

The company is developing in a constantly evolving environment, which often exposes it to risks that threaten its sustainability. Beck's work defines risk as a distribution of potential harms over which we have almost no impact, a danger that we cannot measure or control. These risks inherent to any activity need to be controlled in order to ensure the achievement of the company's objectives. It is, therefore, necessary to distinguish between natural risks, also called exogenous risks, which arise from the confrontation of a natural hazard and its territory, and technological or industrial risks, also called endogenous risks, which are produced by its own activity or within its own buildings, and are linked to human activity. They represent a threat to the company itself (assets, personnel) and externally (third parties, environment).

However, the implementation of risk management has proven to be essential. According to (Caroline Aubry, 2005) Several surveys aimed at assessing risk management reveal that 80% of financial directors interviewed affirm that risk management has a positive contribution to value creation, both quantitatively (additional compensation provided by the company compared to a risk-free investment) and qualitatively (sustainable development, customer loyalty). Indeed, risk management involves reducing the impacts and frequencies of risks as much as possible to bring them close to zero in order to control them and, if possible, eliminate them. In this case, the optimal and efficient choice of the company is guided by the effect of treatments on risk and the cost/benefit ratio of potential treatments. This new organizational orientation induces behavioral changes at all levels of the organization and automatically impacts accounting, which is involved in this major evolution of consciousness, which is undoubtedly the challenge of the coming years. This involvement of accounting in risk management issues translates into the need to consider environmental aspects in the accounts (individual, consolidated) of companies (site restoration, loss of land value, decontamination costs...).

This article, through a descriptive research methodology, aims to highlight the significance of the environmental aspects of risk management in businesses, which constitutes an organizational advantage that they are obliged to integrate into their information system in general and accounting in particular.

2. The transition from risk management to financial accounting

2.1 Risk management:

According to (Louati, 2017), the first appearance of the term dates back to April 1156 in Italy, aimed at regulating a maritime commercial operation conducted at the risk of the sponsor. At another time, Hayens (1895) linked risk with the term "chance," which refers to the notion of probability. The relationship between uncertainty and risk was addressed by the American economist KNIGHT in 1921, who considers, according to (AMANSOU and BENJANA, 2022), that risk is calculable and its occurrence is objectively quantifiable. Hence the existence of objective probabilities that are linked to repetitive events like the tossing of a coin. Whereas objective probabilities are not based on data. From this perspective, he made a distinction between risk and uncertainty, relying on the idea of SMITH (1776) who saw that the risk of industrial investments exceeds that of financial investments, and that of KEYNES (1936) who defended uncertainty, which he considered radical because it pertains to the nature of things.

The evolution of the definition of risk over time leads one to believe that it is often associated with the idea of danger, harm, loss, or events with detrimental consequences. According to (Louati, 2017), this clearly negative connotation of the definition of risk was the result of a vigorous debate between academics and practitioners, which revolved around the integration of a positive dimension into the definition of risk. Gallati (2003) states that restricting risk to the mere occurrence of events with negative consequences is a limitation that implicitly excludes any positive connotation of the term. For his part, Hullet (2002) identified the advantages of considering both the positive and negative aspects of risk, namely the minimization of risk transfer costs and the enhancement of individuals' and organizations' abilities to identify and capture opportunities.

The evolution of business activities, as well as the increase in accidents observed in industrial activities, lead to the emergence of industrial risk, which is defined according to (F. LOOS, 2002) as "Risk concerns the safety and health of the person in the workplace; it is inherent

to the work environment; it is predictable since it must be 'assessed' and finally, there is a human dimension to risk that the inquiry commission report in the Toulouse case has largely highlighted." This definition takes into account the harm caused, such as damage to the safety or health of the personnel, without characterizing the injury. For his part, (PONTIER, 2007) defines risk as "that which is likely to be the cause of an accidental event occurring at an industrial site and which results in harmful consequences for the personnel on the site, for the surrounding populations, for private or public property, and for the environment." These definitions lead us to conclude that risk is inherent in the workplace and that it is the cause of an accidental event, which results in damage at all levels. These definitions lead us to conclude that risk is inherent in the workplace and that it is the cause of an accidental event, which results in damage at all levels. This implies the concentration of risk management responses on the industrial site at levels that represent probable accidents, leading to siloed risk management, through a rigid risk management system, meaning that each risk center is managed independently of the others.

Furthermore, (PONTIER, 2007) explains that technological risk encompasses several types of risk, including industrial risk. However, technological risk is an event whose cause originates from the use of a technology, a technique, and therefore requires human action. Industrial risk is necessarily a risk caused by humans, an anthropogenic risk. On this point, industrial risk is no different from technological risk; it is inherent to human activity.

2.2 Integrated risk management:

Companies are facing increasingly insidious and perilous risks, in light of the large-scale technological accidents that have occurred over the past twenty years (the explosion of the Seveso plant in Italy due to a dioxin leak in 1976, the Bhopal industrial disaster in India that took place in 1984, etc.). Silo risk management has failed to control this wave of contemporary risks.

Indeed, integrated risk management has given rise to a concept that emphasizes more detailed risk management, which takes into account the

various interactions likely to positively or negatively impact the company's overall strategy, hence the need to articulate between strategic management and operational management. In this sense, the deployment of human, material, and financial resources is essential in order to manage the risks impacting the company's activities. According to (AMANSOU& BENJANA, 2019), risk management in its functional aspect has proven to be insufficient, hence the need for a transverse management that exploits the existing synergies between risks, which were neglected by the initial management approach. The objective of integrated risk management is to create harmony among risks.

COSO 2 defines integrated risk management as follows: "a process implemented by the board of directors, senior management, management, and all employees of the organization." It is taken into account in the development of the strategy as well as in all the activities of the organization. It is designed to identify potential events that may affect the organization and to manage risks within the limits of its risk appetite. It aims to provide reasonable assurance regarding the achievement of the organization's objectives.

The closed system emphasizes the management of specific operational risks. This risk management method, which aims to protect against certain dangers, has as its main flaw the absence of a dynamic risk management policy in all activities. In the face of the increasing sensitivity of the environment, both internal and external, the approach of leaders in risk management has gradually evolved towards a more comprehensive vision that includes all stakeholders. This strategy of integrated collaboration is recognized as good corporate governance for risk management. However, integrated risk management introduces new dynamics of interaction and exchange between risks, based on various principles such as trust, communication through a shared language, sharing, and collective action.

2.3 The interaction of accounting information with risk:

Information is generally disclosed in accordance with national legislation, listing rules, widely adopted national accounting principles, as

well as international financial reporting standards, among others. To avoid undervaluing companies and ignoring long-term risks, investors, since the financial crisis of 2008, have stopped focusing solely on the short term. They demand greater transparency by increasing their requests for non-financial information such as environmental data, social issues, and governance. However, the economic performance of companies is subject to a variety of risks, among which operational, financial, and non-financial risks stand out.

The degree of risk disclosure required from companies varies significantly from one country to another. However, significant risks are frequently disclosed in various sections of the annual report. According to the document (United Nations, 2017), within the European Union, Directive 2003/51 concerning annual and consolidated accounts and Directive 2004/109 on the harmonization of transparency obligations include provisions that require companies to provide in their annual and semi-annual reports "an exposition of the main risks and the main uncertainties" they face (Articles 1.14 and 5.4, respectively). In the United Kingdom, additional disclosure obligations have been established in connection with corporate risk management systems and risks associated with financial instruments. As for Germany, it also requires the disclosure of risks in the management report and encourages companies to quantify them if this disclosure is made for internal management purposes and if the risks are significant.

As part of the improvement in the quality of disclosed financial information, international financial reporting standards provide several other requirements for specific risks that must be disclosed in the context of information related to financial instruments. IFRS 7 requires companies to present comprehensive and detailed qualitative and quantitative information on risks related in particular to credit, liquidity, and market that could arise from the use of these financial instruments. Similarly, the IAS 37 standard (Provisions, Contingent Liabilities, and Contingent Assets) prescribes the presentation of uncertainties related to provisions and contingent liabilities. In 2017, the International Accounting Standards Board published a

discussion paper on the principles of disclosure, in which it sets out the seven principles of effective communication, according to which it determines what information should be disclosed in financial statements and how it should be disclosed. Under these principles, it was appropriate that the disclosed information be characteristic of the entity in question, be formulated in a simple and direct manner, emphasizing important elements, be linked to other information in the annual report and avoid unnecessary repetitions, be comparable over time, and be presented in a form appropriate to their nature. The results of this project will be significant for the disclosure of risks by companies.

Moreover, to ensure quality information that will help us understand how this entity is facing uncertainty and how it could hinder the achievement of its business objectives as well as its growth and innovation prospects. It is essential to consider the traditional strengths of the Chief Financial Officer as well as the Finance department, which are ideally positioned to provide relevant information based on the organization's varied data and operations. They thus play a key role in coordination. Contribute individually and functionally in a significant way to the management of strategic and operational risks. In this context, the risk management function should work closely with the Finance function to establish an appropriate risk alert culture across the organization. This assigns the Chief Financial Officer and the Finance function the responsibility for the flow of information related to risks. Those entrusted with responsibilities related to risk management are in a better position to make a significant personal and functional contribution to the management of strategic and operational risks. This requires the chief financial officer and the finance function, according to (IFAC, 2019), to consider improving the contribution to risk management in three ways, namely:

2.3.1 Establish the connection between risk management and value creation or preservation:

The Chief Financial Officer and the Finance function must help the board of directors and management to fully understand the risks and issues that truly matter, in order to contribute to the evolution and transformation

of business models to ensure resilience. This means ensuring that there is a risk management approach aimed at identifying uncertainties related to objectives and the business model for all forms of capital: financial, human, social and relational, environmental, production, and intellectual, etc. This explains that the factors influencing the current value and cash flows are increasingly related to intangible assets and non-financial "capitals."

2.3.2 Optimize information to inform decisions:

Based on high-quality information, which reduces uncertainty and can encourage a greater propensity for risk. Therefore, the Chief Financial Officer and the Finance team strive to improve information by implementing innovative methods to facilitate the detection and appreciation of risks and opportunities, as well as their potential repercussions, which helps enhance transparency, understanding, and decision-making. Indeed, this offers the accounting specialist the opportunity to leverage their expertise in governance and auditing of financial data across all types of data. This may include the establishment of shared standards and models, as well as the streamlining and optimization of data-related processes to enhance data quality and audit trails.

2.3.3 Promote integration and interconnectivity:

Siloed risk management makes understanding activities more complex, leading to them being considered a distinct process within different functions. It is therefore difficult to determine whether opportunities and risks are managed comprehensively and interactively, and whether the communication on this matter is of uniform quality at all levels. The contribution of the Chief Financial Officer and the finance team is essential here, as their mission is to assemble risk-related information from different functions and processes into a comprehensive presentation based on a risk management framework. The financial function relies on connectivity to integrate the analysis of key threats and opportunities into the operational processes it oversees. This includes planning, projections and budgets, organizational performance management, as well as ensuring the existence of effective internal controls. Indeed, this provides a comprehensive perspective of the organization at the Finance level,

allowing this function to better manage risks by eliminating silos, linking risk data from all functions and processes to involve the appropriate individuals, procedures, and systems.

3. Risk Management Techniques

3.1 Risk reduction:

Risk reduction involves, in addition to the existing control measures within the company, taking steps to further mitigate residual risks, namely:

3.1.1 The elimination of a risk or avoidance:

This measure is taken when there is no way for the company to reduce the frequency and impact of a residual risk that remains above the company's risk appetite. In this situation, the leaders might choose to forgo taking this risk. This eventual renunciation is akin to a risk elimination or avoidance. The avoidance measure is defined according to (Andreadakis and al,2021) as a "measure that modifies a project or action in a planning document in order to eliminate a negative impact identified that this project or action would cause."

3.1.2 Prevention and protection:

Prevention and protection are the two most well-known treatment methods in risk reduction. They aim to act directly on the two parameters of risk. Prevention involves all measures to prevent a risk, that is, to completely stop it from occurring, or, failing that, to avoid its consequences or reduce its effects or frequency. The prevention of occupational risks encompasses collective or individual actions that prevent the emergence of a danger related to the work being performed or its environment, or that reduce its impacts. However, protection serves to mitigate the impact or intensity of the risk when it occurs.

3.1.3 Precaution:

Precautionary measures must be taken by the company when it is unaware of either the frequency or the impact of the risk, or both at the same time. Moreover, logic recommends caution when one must act in the realm of uncertainty. The implementation of this operation requires adapting the measures to be taken to the risks and having an acceptable cost.

3.2 Risk financing:

Risk financing is considered after the company has already implemented all the risk reduction measures at its disposal. This indicates that the "zero" risk does not exist within the company because after applying risk mitigation measures, there will always be residual risks. The main methods of risk financing are: retention and transfer.

3.2.1 Risk retention:

It is a strategic approach implemented by the company when the risk is deemed tolerable, which involves no longer taking restrictive measures to limit the risks, but rather opting for an alternative plan according to its risk management policy. Furthermore, the company chooses to bear the risk as long as the residual risk is below its risk tolerance while remaining at an acceptable level. In this context, the company sets up a self-insurance provision to cover losses (liquidity, assets, funded or unfunded provisions, debts, captive insurance...) whenever they occur. While constantly ensuring that the self-insurance costs remain lower than the actual insurance premiums. The company may be forced to bear these risks if it fails to transfer them to another party. However, the implementation of this measure requires a thorough understanding of the historical frequency and consequences of the risk, as a poor risk assessment can lead to financial complications. However, when the company fails to transfer these risks to a third party, it may be forced to bear them itself.

A. Self-financing of risks :

A.1 Preventive self-financing :

Private law companies only have an insurance obligation concerning civil liability risks, that is to say, bodily, material, and immaterial damages caused to third parties. As a result, they can decide to self-finance certain asset risks or deductibles (the part of the claim cost borne by the insured) which can be substantial in the case of major industrial risks. In this regard, groups can set up provisions for their own insurer corresponding to the expert-assessed value of the asset that may be at risk. This provision is backed by the acquisition of subordinated financial assets without risks, generating a coupon in the absence of a claim. These subordinated assets

are subject to impairment tests to ensure that their performance matches the expected performance (in accordance with IAS 36). In the event of a loss, it is assessed and the represented asset is transferred. In the opposite case, the financial asset generates a secured return.

A.2 Curative self-financing:

There are three scenarios in terms of post-loss risk financing:

- **The deductible:** It is the amount that the insured must bear in the event of a claim. In other words, it is a portion of the damage costs that is not covered by your insurer. Thus, the insurer encourages its clients to take responsibility, which leads to a distribution of damage costs between the contracting parties; the lower the deductible, the smaller the amount you will have to pay out of your own pocket, and the higher the premiums will be. In the field of industrial risks, the total of these deductibles can significantly exceed the actual cash available to a small subsidiary, potentially causing significant cash flow complications for it.
- **the proportional rule of capital:** After a loss, the insurer applies a rule whereby the value of the insured object is less than its actual value (underinsurance) at the time of the loss. This implies that the insured's compensation will be limited to the amount proportional to the premium previously paid. Regarding the remaining amount to be compensated, the insured will be treated as their own insurer and will therefore receive no compensation. In certain situations, the group is required to cover the difference between the funds declared to the insurance by the management and the new replacement value of the destroyed assets. In the context of a preliminary capital assessment, this principle is not applicable.
- **The coverage gap:** it corresponds to the scenario where the event causing the loss falls under the exclusions. The insurance company can refuse to pay compensation because the event falls outside the scope of the coverage. The company must, in this case, self-finance the entire cost of the loss (if it has the capacity to do so!).

3.2.2 The transfer of risks:

The transfer of risks is a strategic choice related to the impact of activity risks on the company's objectives. It is a technique by which the company entrusts its risks to one or more third parties. They accept the risk of others under certain conditions without bearing the entire risk themselves.

A. Subcontracting and co-contracting :

Subcontracting is defined by (Chaillou, 1978) as "any work whose execution requires the intervention of an external agent either from the definition of the work (by creating the detailed definition document), or from the definition of the work methods (by creating the method document), or even from the actual execution of the work (by executing the part or service), this intervention continuing until the complete completion of the work." This does not indicate any incompetence on their part in machining their seats. Since it is the company itself that drafts the specifications describing the characteristics of the seats, it is therefore capable of assessing their quality at the time of delivery by the subcontractor.

According to Martinet (1983), forms of inter-company cooperation, called "outsourcing strategy," offer a strategic alternative to competition among rivals. However, among the types of outsourcing, co-contracting sees partners sharing the production process or collaborating on certain operations within the framework of an economic interest group (EIG). This practice is common in the field of public works where companies form consortia or groups to respond to tenders and jointly carry out construction work.

These two risk transfer techniques are primarily motivated once again by the reduction of the impact of risks on the company. The third party agreeing to bear the risk will take on all or part of its consequences.

4. The conceptual framework of environmental risk accounting

4.1 Expenses related to environmental risks are immediately recorded in the companies' accounts (either as expenses or as assets):

These costs are related, among other things, to:

- to waste disposal and the efforts undertaken to limit its quantity;
- in the fight against soil pollution, surface water pollution, and groundwater pollution;
- to the preservation of air quality and climate;
- to the reduction of noise emissions;
- to the protection of biodiversity and the landscape.

It is necessary to distinguish between expenditures that have an investment nature and those that have a charge nature. On this point, (SÉGURET, 2008) reveals that the opinion of the CNC Emergency Committee (2005) had clearly defined the environmental expenditures that can be recorded as assets. These expenses must meet three (cumulative) conditions; they must be:

- Engaged for reasons of either personal safety or environmental concerns;
- Imposed by legal obligations ;
- Moreover, their non-implementation would lead to the cessation of the company's activity (or even the shutdown of the facility).

These expenses are considered, as assets, as recommended by the IAS 16 standard. Tangible assets: that the cost of a tangible asset must be recognized as an asset if it is probable that the future economic benefits associated with that item will flow to the entity and if the cost of that asset can be measured reliably. As for environmental protection elements acquired for the proper functioning of other fixed assets, they can be recorded as assets even in the absence of direct future economic benefits, as they are considered accessories to the main asset, enabling the company to comply with current legal obligations and remain competitive in the market. Industrial groups are elements influencing the anticipated cash flows produced by the asset, as required by IAS 16 (security investments, spare parts, dismantling, soil decontamination, five-year closure for major maintenance).

The notion of component used in depreciation highlights the principle of proactive control of industrial risks. Thus:

- The scheduling of security investments aims to protect the cash flows generated by the asset.
- The budgeting of spare parts aims to prevent machine breakdowns.

IFRS financial accounting thus demonstrates that all the company's assets are under control in order to secure its cash flows.

Moreover, the accounting for the acquisition of green patents, carried out based on greenhouse gas emission quotas, should be allocated to intangible assets as recommended by IAS 38 Intangible Assets, which defines it, according to (C.Maillet-Baudrier, 2007), as an identifiable non-monetary asset without physical substance. An asset is a resource: a) controlled by the company as a result of past events; and b) from which future economic benefits are expected by the company. However, it specifies the treatment of environmental assets such as development costs or greenhouse gas emission rights, received for free or acquired on the market.

On the other hand, it is important to consider the activities of certain companies, for which the so-called 'environmental' expenses are hardly distinguishable from regular operational expenses (waste treatment, water management...). However, the depollution activity produces residues that should be stored, as recommended by IAS 2 Stocks, according to (Elena M. Barbu, 2011). It is mainly used in highly polluting industries (for example, in mining) to recognize waste as assets with a residual value. The standard requires that waste be recognized as inventory only if additional expenses are incurred to convert surplus products into marketable goods.

4.2 Environmental liabilities:

Future environmental liabilities must be recorded in the liabilities as indicated by the IAS 37 standard « Provisions, Contingent Liabilities and Contingent Assets, » which provides details on provisions for dismantling or removal costs of fixed assets and site restoration. The standard is particularly likely to affect corporate behavior as it requires recording in the balance sheet liabilities an estimated amount of « any current obligation, legal or implicit, resulting from a past event, if it is probable that an outflow of resources will be necessary to settle the obligation, and if the amount of

the obligation can be reliably estimated ». The standard describes in Annex C eleven events that are subject to provision accounting, four of which concern environmental expenditures or risks: land decontamination, oil drilling, obligations related to the establishment of environmental infrastructures, and obligations for the maintenance or improvement of productive equipment. However, the standard requires companies to list all their environmental obligations, assess them, and account for them as liabilities. The environmental obligation can be either of a legal or contractual nature (when the company has a legal obligation to foresee, reduce, or repair environmental damage), or implicit – that is, arising from practices or policies of the company that lead it to make decisions, expected by third parties, to account for these liabilities. The standard also requires describing the nature and justifying the amounts provisioned, all of which must be certified by an auditor or a statutory auditor.

4.3 The other elements of financial environmental accounting:

4.3.1 IAS 8 retrospective adjustments:

According to (A. Kaddouri, 2009), it consists of correcting the accounting, evaluation, and provision of information on the amount of elements in the financial statements as if an error from a previous period had never occurred. It therefore deals with accounting treatment related to changes in accounting methods, changes in accounting estimates, and error corrections. All these aspects can also apply to environmental elements. changes in accounting estimates may arise for the following items: provisions for the dismantling of pollution control equipment, provisions for the rehabilitation costs of mining industries, provisions for other environmental costs (air pollution, noise nuisances, toxic gases, and waste).

4.3.2 IAS 10 Events after the Reporting Period.

It involves the adjustment of the company's financial statements based on events, favorable or unfavorable, that occur between the end of the closing period and the date of authorization for the publication of the financial statements. Some of these events may have an environmental impact and must be described by specifying the causes that produced them. In this case, we observe two types of events (those who help confirm

circumstances that existed at the closing date, those that indicate circumstances arising after the closing date).

4.3.3 IAS 20 Accounting for Government Grants:

Contains an implicit reference to the initial allocation of greenhouse gas emission rights and their identification in the financial statements.

4.3.4 Regarding the handling of financial resources:

According to (Elena M. Barbu, 2011, p. 25), the standards IAS 32 "Financial Instruments: Presentation," IAS 39 "Financial Instruments: Recognition and Measurement," IFRS 7 "Financial Instruments: Disclosures," and IFRS 9 "Financial Instruments" can be used to inform about present and future risks related to environmental derivatives and the treatment of other financial elements due to environmental impacts. Thus, these standards specify whether an environmental financial asset should be valued at amortized cost or at fair value, depending on how the entity manages its financial instruments and the characteristics of the cash flows attached to the financial assets.

4.3.5 IAS 36 Impairment of Assets:

Amount of the excess of the carrying amount of an asset (or a cash-generating unit) over its recoverable amount. That is to say, the entity must ensure that its assets are recorded at a value that does not exceed their recoverable amount. This standard can be used for the impairment of a company's environmental assets following a contamination incident, a physical accident, a contract termination, or the depletion of mineral resources.

4.3.6 IFRS 3 Business Combinations:

A business combination is the gathering of entities or activities distinctly into a single entity presenting the financial statements. It explains that the assets and liabilities acquired in a business combination must be measured at their fair value, an assessment that can take into account the environmental impact of these elements.

4.3.7 IFRS 6 Accounting for the Extraction Industries:

Concerns extractive activities, which are widely recognized as environmentally sensitive. The standard is a guide for the accounting of

exploration and evaluation expenses for mineral resources. It also provides the criteria for recognizing decommissioning and relocation obligations following the exploration of mineral resources.

4.3.8 IFRS 8 Operating Segments:

Specify the important elements that must be included in the annual reports of large corporations. Diversified companies sometimes have an operating segment directly related to environmental protection, such as renewable energy, urban services, decontamination services, green technologies, recycling, etc.

5. CONCLUSION

This article reveals, at the end, that the company's sustainability is threatened by the risks it is exposed to during its development in a constantly evolving environment. However, the need for risk management intervention has become essential in order to reduce the frequency of risk and eliminate its impact. The reports of the accidents that occurred reveal that risk management by the closed system is focused on certain operational risks. Its major drawback is the lack of an active risk management strategy across all activities. The company's sensitivity to its environments has led to the evolution of risk managers' mindsets towards a more integrated approach to risk management. Thus, it introduces new interaction and exchange logics between risks based on trust, communication with a common language, sharing, and joint action.

The interaction between risk management and accounting emerged in response to investors' demands, after the 2008 financial crisis, for improved transparency, leading to an increase in requests for non-financial information such as data on the environment, social issues, and governance. However, the economic performance of companies is exposed to various risks, among which operational risks, financial risks, and non-financial risks are distinguished. This leads countries to impose different requirements for disclosing information on significant risks in companies' annual reports. Its objective is to ensure quality information that allows for understanding the uncertainty and constraints that hinder the achievement of business objectives. This requires the intervention of the chief financial officer and

the finance function, who are well-positioned to provide insightful information regarding the various activities of the organization, through which they play a coordinating role. Therefore, the coordination of the risk management function and the finance function is essential, as it assigns the responsibility for the flow of information related to risks to the chief financial officer and the finance function. Indeed, the information flows related to risks will be recorded in accordance with international accounting standards IAS/IFRS, by nature and origin in the summary documents to promote a holistic view of the entire organization, which allows, on the one hand, for investors to use it for strategic decisions and, on the other hand, connects the information between all functions and all processes at the operational level.

6. Bibliography List

- AMANSOU.S & BENJANA.H.(2022) "Maturity of Integrated Risk Management: Proposal of the 6Cs Model," French Journal of Economics and Management "Volume 3: Issue 6". pp: 690 – 710. A.
- Kaddouri, A. (2009). "Financial Accounting Course According to IAS/IFRS Standards and SCF 2007." Algiers: ENAG.
- Baptiste Julien Blandet « Insurance: beware of 'coverage gaps' ». <https://www.linternaute.com/argent/assurance/1095320-assurances-attention-aux-trous-de-garantie>, viewed on 09/14/2022.
- Caroline Aubry, (May 2005) « Risk Management in French Companies: Current State and Emergence of a Cognitive and Organizational Approach ». Accounting and Knowledge Review, France.
- C.Mailliet-Baudrier, A. M. (2007). "International Accounting Standards IAS/IFRS". Algiers: Berti.
- Inquiry Commission on the Safety of Industrial Installations and Research Centers and on the Protection of People and the Environment in the Event of a Major Industrial Accident of January 29, 2002, President F. LOOS, Rapporteur J-Y. DÉAULT, Report No. 3559, January 29, 2002. <https://www.assemblee-nationale.fr/11/rap-enq/r3559/r3559-01.asp> viewed on 11/06/2022.
- United Nations Conference on Trade and Development (November 1-3, 2017) « Role of information in risk assessment and in the publication by companies of information more useful for decision-making » Geneva.
- Delphine Bardou « What is a deductible on an insurance contract? » <https://reassurez-moi.fr/guide/assurance/deductible> Updated on April 25, 2022, viewed on September 14, 2022.

- Elena M. Barbu, N. F. (2011, February). "What IAS/IFRS standards to use for environmental reporting?" *French Accounting Review*, pp. 24-26.
- Katia Richomme. (2001) « From Co-contracting to Relational Management: The Case of an Artisan Cooperative in the Construction Sector » *International Journal of SMEs*, Volume 14, Issue 2.
- Marie-Line SALVADOR. (January 23, 2015) « The Contractual Management of Industrial Risk » Doctoral thesis, University of Toulouse I Capitole, France.
- M. Hudon. (2006) « Risks and Dangers: What Classification and Management Methods? » CEB Working Paper No. 06/001.
- Hend Louati. (January 18, 2017) « Analysis of the Determinants of the Quality of Integrated Enterprise Risk Management and Impact on the Value of Canadian Companies ». Risk management. University of DE LA MANOUBA, ISCAE (Tunisia).
- International Federation of Accountants « OPTIMIZING THE CONTRIBUTION OF ACCOUNTANTS TO ENTERPRISE RISK MANAGEMENT » IFAC 2019. <https://www.ifac.org/system/files/publications/files/Optimizing-the-Contribution-of-Accountants-to-Enterprise-Risk-Management.pdf> Seen on 11/30/2022.
- Saida AMANSOU and Hajar BENJANA. (2022) « Maturity of Integrated Risk Management: Proposal of the 6Cs Model » *French Journal of Economics and Management*. Volume 3: Issue 6. pp: 690 – 710.
- SÉGURET, J.-P, (April 2008). « The Accounting of the Environment » *Responsibility and Environment Review*, pp. 35-41.
- Yves Drolet "Subcontracting Relationship Model: The Client's Perspective" University of Quebec, May 1992. <https://depositum.uqat.ca/id/eprint/279/1/yvesdrolet> Seen on 09/16/2022.