The Management of Risk Institutional in the Jordanian Insurance Companies - Reality and Challenges

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Abstract
During the last decade and as a result of the 2008 global financial crisis, Enterprise Risk Management (ERM) gained more attention from the financial services sector especially banks and insurance companies. In addition, many companies had adopted practices dedicated to ERM and consulting firms started to establish departments specialized in ERM. Meanwhile, universities have developed specializations related to ERM. Moreover, research centers embarked on research on this subject matter.
This study aims to investigate the reality of enterprise risk management in the Jordanian insurance industry in order to reveal the challenges facing it by focusing on the four most important dimensions related to enterprise risk management which are: governance and risk management strategy, risk culture, risk management operations and its interdependencies, and finally the support technology for risk management.
The study is based on the descriptive inductive methodology in building the questionnaire, which was distributed to a sample
that consisted of most insurance companies in Jordan during the period from December 2015 to February 2016.

The study found that risk management practices and regulatory authorities have a long way to go, where the most important results of this study were:

1. 28% of the insurance companies surveyed have a plan and a budget for Information Technology (IT) risk management.
2. The support level of technology to the risk management in the insurance companies surveyed is 30%.
3. 33% of the insurance companies surveyed have standard practices in the enterprise risk management, such as: ISO 31000 and COSO standard.
4. 33% of the insurance companies surveyed currently have a risk management system.
5. 37% of the insurance companies surveyed were a target of electronic attacks over the past 18 months.
6. 47% of the insurance companies surveyed have a risk management department that is responsible for adhering to regulatory and legislative requirements set by the legislator.
7. 49% of the insurance companies surveyed, are evolving universities, consulting firms and specialized training centers, in developing and enhancing risk management personnel.
8. 56% of the insurance companies surveyed are willing to have a risk management program
9. 60% of the insurance companies surveyed have an accredited policy of risk management
10. The level of the risk management operations and its interdependence in the insurance companies is 64%
11. The level of the governance of risk management and its strategy in the insurance companies is 69%
Based on these results and in order to begin to improve the reality of risk management practices in the Jordanian insurance companies, the researcher has the following recommendations:

1. Activating the role of risk management through the establishment of specialized departments in this field.
2. Activating the role of the legislative and regulatory authorities to play a bigger role in order to confirm the existence of these departments and to improve procedures and instructions provided by these actors in this area.
3. Increasing the role of academia represented by universities, consulting firms and specialized training centers, to ensure improving the efficiency of the staff of risk departments.
4. Encouraging the companies through the regulatory authorities to adopt global standards in risk management, such as: ISO 31000 COSO standards.
5. Encouraging the companies to have a plan and a budget for the information technology risk management.
6. Directing companies to have accredited policies in risk management.
7. Drawing the attention of the companies to the importance of technology information in the risk management systems and the confidentiality of their information.
8. Drawing the attention of companies to raise the level of management in the governance and risk management strategies in the insurance companies.
9. Inducing to increase the level of risk management operations and its interdependencies among insurance companies.
10. Drawing the attention of researchers and academia to the importance of research and scientific studies in this area to demonstrate its importance to the Jordanian insurance companies, to increase the desire and willing of the
insurance companies to adopt risk management programs, at present time and in the future.

**Introduction**

During the past decade, especially since the 2008 financial crisis, there had been increasing interest in risk management in large and small companies, including Jordanian insurance companies, which are the subject of this research. It seems that most of the impact of the 2008 crisis on Jordanian insurers had been due to the lack of interest in the risk management. This has put companies under a considerable pressure to improve their risk management practices in order to reduce the risks they face.

Regulatory bodies have played a prominent role in increasing this pressure. The professional associations, stock exchanges, international standards organizations and consultants have issued new rules and requirements for risk management. In addition, the credit rating agencies such as Standard & Poor's have started evaluating corporate risk management practices as part of their credit rating. After this interest and increased demand, the idea of corporate risk management has become very important.

The corporate risk management approach differs from the traditional meaning of the risk management, because this approach makes an integrated view of risk from the company's entire perspective, called enterprise risk management (ERM) (Connair & Stephen, 2013).

ERM is a framework that views risk as a focal point in business activities, as it enables the company to make decisions based on the degree of risk and manage the expected returns through risk identification.
In fact, determining the overall form of risk management and governance in any business would provide the basis for an enterprise risk management strategy. So as that this process is effective, the ERM should be designed in line with the company's culture and strategy in the insurance sector. It is important that this design responds to the guidance and requirements of the local regulators, which are in turn undergoing continuous development.

The Arab insurance industry in general, is passing in an interesting stage. Despite the challenges facing the Jordanian insurance market, this sector continues to grow, depending on the government spending on infrastructure and development projects, and the compulsory insurance such as auto insurance and medical insurance.

At a time when the Arab insurance markets witness a remarkable development in performance and competencies, because the legislation of the regulatory bodies in some Arab countries such as Jordan had witnessed a remarkable development recently. In response to these changes, the subject of "risk management" ranked high on the agenda of executives of Arab and Jordanian insurance companies in particular, and became increasingly important and part of the daily activities of these companies. Because of this, the study was conducted, which researchers expect to be of great benefit to Jordan's insurance industry.

**Problem of the study**

Over the past decade, the failure in risk management practices have become more clear, and institutional risk management has come to light after the recent financial crisis (2008). Accordingly, this research will strive to uncover the reality and challenges of corporate risk management in Jordanian insurance
companies by looking at four main themes: risk management governance and strategy, risk management culture, risk management and risk management processes and risk management support technology.

**The hypotheses of the study**

1. There are no statistically significant differences between the level of risk management governance and strategy in the Jordanian insurance companies and the imposed level (70%) at the level of significance $\alpha \leq 0.05$ from the point of view of the participants.

2. There are no statistically significant differences between the level of risk management culture in the Jordanian insurance companies and the level imposed (70%) at the level of significance $\alpha \leq 0.05$ (from the point view of the participants).

3. There are no statistically significant differences between the level of risk management operations and their correlation in the Jordanian insurance companies and the level imposed (70%) at the level of significance $\alpha \leq 0.05$ (from the point of view of the participants).

4. There are no statistically significant differences between the level of support technology for risk management in the Jordanian insurance companies and the imposed level (70%) at the level of significance $\alpha \leq 0.05$ (from the point of view of participants).

5. There are no statistically significant differences between the level of risk management in general in the Jordanian insurance companies and the level imposed (70%) at the level of significance $\alpha \leq 0.05$ (from the participants' point of view).
6. There were no statistically significant differences in the responses of the participants at the level of significance $\alpha \leq 0.05$ (due to demographic variables such as sex and age).

**Objective & importance of the study**

The main objective of the study is to uncover institutional risk management practices in the insurance sector in Jordan. Despite the lack of studies on the same subject, and the researchers' experience in this area, researchers are of great importance in disclosing the level of institutional risk management practices in the insurance sector in Jordan. The importance of this research lies in its knowledge of the institutional risk management practices, especially in Jordan. In addition, the results of this study will help Jordanian insurers identify the strengths and weaknesses of their policies and strategies and the level of corporate risk management in their companies or Jordanian insurance companies as a whole.

**The theoretical framework of the study**

*From the traditional risk management to enterprise risk management*

**Definition of risk:**

Risk is defined as a combination of the probability of a particular event and the consequences of the event. There is a potential for a particular opportunity or benefit as a result of risk or threat to success (Peter Berg, 2010). The risk is inherent in all of the company's activities. However, the development of risk management enables the company to manage these risks.
The types of risks:
Researchers classify risk into several classifications, and Thomson (2012) explained that any business is exposed to a variety of different types of risks. These types of risks can be classified into the following categories:

❖ Economic and non-economic risks:
   • Economic risks that can lead to financial losses.
   • Non-economic risks such as personal risks that can lead to health losses.

❖ Pure Risk and speculation Risk:
   • Pure risk is the risk of losing without any chance of making gains (example: bad weather or fire).
   • Speculative risks where the opportunity is either for gain or loss, such as investing in the stock market.

❖ Controllable and uncontrollable risks:
   • There are risks that can be controlled such as risks that can be less likely to occur, such as protection against theft by improving the standards of security systems.
   • Uncontrollable risks that cannot be less likely to occur, such as storms and earthquakes.

❖ Unsecured risks and non-insurmountable risks:
   • Unsecured risks are those that are in line with the standards and specifications of the insurance policy, such as the qualifying criteria and the insurance interest.
   • Uninsured risks which the company of insurance cannot calculate the probability of occurrence of the risk, it cannot calculate the premium. For example, you cannot obtain a lock against the possibility of your business failing.
Risk Management:
Risk management is to work to get on the right balance between exploiting opportunities to gain and minimize losses (Abdul Rasid, Golshan, Ismail & Ahmad 2012). As this definition suggests, a risk management is an integral part of good management practices and is an essential element of corporate governance. Risk management is a frequent and ongoing process and when working, it is a good decision-making process as well as performance. This process includes identifying, analyzing, evaluating, addressing, and communicating risk. This process enables organizations to maximize gains and minimize losses (COSO, 2004).

The primary objective of risk management is to increase and protect shareholders' equity (Pagach & Warr 2011). Traditionally, when one talks about risk management, insurance or internal auditing comes to mind. As the focus was always on the downside of exposure to risk, and the function of the risk specialist was only to minimize the negative impact. However, in recent years, the concept of institutional risk management has emerged with emphasis on both positive and negative aspects of Enterprise Risk

Management (ERM):
Enterprise Risk Management is sometimes referred to as "business risk management", or a "strategic risk management", or “comprehensive risk management” or "integrated risk
management" or "corporate risk management" of the company, which is the new alternative to traditional risk management based on separate business unit risk management (D’Arcy, 2001). The main difference between corporate risk management and traditional risk management based on the risk management of each department is that firms can enhance value and return for stakeholders by mitigating risk when working within the corporate risk management framework (Daud, Yazid & Hussin, 2010). 

There are several definitions of Enterprise Risk Management (ERM), including "the process of identifying and analyzing risks from an integrated and enterprise-wide perspective" (Chapman 2010).

It is also an essential element of modern business management (Azizan & Samad 2011).

The concentration of risk management from operational risks and financial risks has shifted to a much more strategic vision of opportunities and threats. Enterprise risk management is a strong and dynamic framework for risk management.

In short, ERM includes the methods and processes used by organizations to manage risks and seize opportunities to achieve their objectives. In fact, ERM addresses the needs of various stakeholders, who wish to find a wide range of risks facing the organization to ensure that the organization is properly managed.

**Importance of ERM practices:**

Specialized professional bodies such as the Association of Actuaries have identified five factors which will force companies to practice corporate risk management:

1. **Risk Identification:** This involves identifying potential risks that could impact the organization. It is crucial to have a comprehensive understanding of internal and external risks.
2. **Risk Assessment:** Once risks are identified, it is necessary to assess their likelihood and impact on the organization. This helps in prioritizing risks for management.
3. **Risk Mitigation:** Strategies must be developed to mitigate identified risks. This could involve diversification, hedging, or other risk management techniques.
4. **Risk Monitoring and Reporting:** Regular monitoring of risks is essential to ensure that control measures are effective. Reports on risk management performance should be regularly prepared and reviewed.
5. **Risk Communication:** Effective communication about risks is critical for stakeholders to understand the risks and the risk management strategy. This helps in building trust and support for risk management efforts.

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Factor 1: The first factor relates to the complex risks faced by the company as companies not only face the four basic types of risk such as disaster risk, financial risk, operational risk and strategic risk, but there are other risks such as the risks of advanced technology and accelerating the pace of work and globalization and increasing the financial complexities and risks of terrorist activities. However, these risks do not occur on their own, but they may produce complex risks by combining two or more of these risks (e.g., globalization and advanced technology).

Factor 2: External pressures by regulators, credit rating agencies, stock exchanges and investors, as well as corporate governance bodies.

Factor 3: Increasing orientation to integrate risks that were managed at the business unit level.

Factor 4: The danger needs to be measured quantitatively even if it is impossible. By measuring risk, management is able to estimate the risk or dependency level of a particular risk to other risks, which affects the efficiency of the decision-making process (Casualty Actuarial Society, 2003).

Factor 5: The last factor relates to the risks that can be treated as an opportunity for profit. In the past, emerging risks were addressed in a defensive manner in order to minimize or avoid them. Now, risk should be viewed as a potential source of value creation or profit.

As a result of the previous mitigation experience, companies must develop the skills needed to manage these risks. In fact, there are four main reasons why businesses in the United States practice (KPMG International, 2006):
Companies' desire to reduce potential financial losses (68%).
Companies' desire to improve performance (64%).
Compliance with legislative requirements (58%).
Companies desire to increase their liability for risk (53%).

Management Risk framework in the company:
Risk is inherent in the business activities of any company and is linked to strategic decisions and capital. The company aims through the management of risk to accomplish the company's business and financial strategy without exceeding the limit of risk tolerance and through Sunday account of internal constraints (solvency and liquidity) and external constraints set by regulators and other stakeholders.

The Company's risk management objective is to provide:
- Clearly defined and well documented risk management strategy that:
  Identifies the company's risk management objectives, key risk management principles, overall risk appetite and risk responsibility allocation across all company activities
- Is consistent with the company's overall business strategy.
- Adequate written policies:
  - Includes definition and classification of the Company's tangible risks, according to type, and acceptable risk limits for each risk type.
  - Implement risk strategy in the company
  - Facilitate oversight mechanisms
  - Consider the nature, scope and duration of investment in the business and the risks associated with it.
The company's risk management framework is an integral part of business and fully interacts with strategic planning, business and capital management process.
As part of the risk framework, risk management is an integral part of the company's strategic and operational processes, either as an independent risk management framework or as an input to major strategic and business operations. The risk management framework defines the company's strategy, through which it manages risks, taking into account its business objectives and vision, as well as the overall risk desire. In this way, the risk strategy defines the principles of risk management, which in turn encourages the formation of business functions and committees, assigning roles and responsibilities and defining reporting lines.

**Main risk**

**Main risk categories**

The company defines the main risk categories to classify risk events in meaningful groups. Risk categories are in line with regulatory requirements, and with risk profile and activities in the company, these categories are:

- Insurance risk (underwriting risk and risk allocation).
- Credit risk
- Operational risks (including legal risks and compliance)
- Market / investment risk
- Liquidity risk
- Concentration risk
- Retention risk
- Strategic risks
- Reputation risk.

The risk categories in the company are divided into more sub-categories of risk in a precise and specific manner and exclude each other. These sub-categories are used to identify and assess existing risks and exposures as part of the risk management process and are recorded in the company's risk profile. The
aggregation of risk exposure in the above categories creates a risk profile for the company.

Risk categories definition

Companies had identified the main categories of risks arising from its operations as follows:

- Insurance risk (arising from subscription and retention risk): Underwriting risk is the risk that its losses are higher than expected. This can be the result of several factors such as inadequate pricing assumptions, insufficient subscription criteria, etc.

- Credit risk: This is defined as the "risk of loss, or negative change in the financial position resulting from fluctuations in the credit position of issuers of securities, lenders and any debtors that may be exposed to insurance companies, in the form of risk of borrower default, market.

- Operational risk: "Risk of loss resulting from inadequate or failed internal processes, personnel or systems, or external events" that includes legal risk and compliance, which can be defined as the risk of loss resulting from non-compliance with applicable laws, regulations, contracts and practices rules of conduct, but excludes strategic risks and reputation.

- Market/investment risks: This is the "risk of loss, or a negative change in the financial position, which results directly or indirectly from market fluctuations as well as market volatility of assets, liabilities and financial instruments’.

- Liquidity risk: The risk that the Company is unable to liquidate investments and other assets to settle its financial liabilities as they fall due.
- Concentration risk: This is caused when all exposures (resulting from credit risk, market risk, etc.) have the potential to be impaired enough to threaten the solvency or financial position of the Company.
- Retention risk is the risk of loss, or a negative change in the value of insurance contract liabilities arising from fluctuations in timing, frequency and severity of events at the insured, timing and amount of claims settlements.
- Strategic risk: the risk of the current or potential impact on profits or capital resulting from negative business decisions or inappropriate implementation of decisions, or inability to respond to changes in the area of work.
- Reputation risk: the risk of potential losses through the deterioration of the company's reputation or because of the negative perception of the image of the company between customers, business partners, shareholders or supervisory authorities and other stakeholders.

**Risk management process**

It is an ongoing process that should be used to implement the company's overall strategy and should allow for a proper understanding of the nature and importance of the risks to which it is exposed, including sensitivity to and mitigation of risks. Risk management consists of several stages at different levels within the business:

**Risk assessment: the risk assessment is defined by ISO / IEC Guide 73 as all risk analysis and evaluation procedures**

**Risk analysis includes:**
- Identifying risks: the definition of risk is intended to determine the exposure of the company to uncertainty. This requires a thorough understanding of the institution and the market in which it participates, and the legal, social, political
and cultural environment within which it is located. This requires a proper understanding of the organization's strategic and operational goals, including vital factors to ensure the success of the institution and the opportunities and threats associated with achieving those objectives. The risk identification process must be carried out in a systematic manner to ensure that all significant activities of the institution are defined and all risks arising from such activities are identified. Changes associated with these activities should also be identified and classified according to their importance.

- **Risk description**: The hazard description aims to present the hazards that are defined in a systematic manner, for example, using a table. A separate risk description table can be used to facilitate risk identification and screening. The use of a well-designed method is necessary to ensure procedures for the definition, description and examination of risks in a comprehensive manner. Taking into account the results and prospects of each risk included in the table, it is possible to prioritize the main hazards that need to be analyzed in more detail. Risks identified and associated with activities and decision-making can be classified as strategic, project/tactical and operational. It is necessary to integrate risk management into the project visualization phase and during the implementation phases of a particular project.

- **Risk estimated**: Risk can be estimated in a quantitative, semi-quantitative or qualitative manner in terms of probability of verification and potential results. For example, results in terms of threats or chances of success may be high, medium or low, and the possibilities may be high, medium
or low, but require different definitions in terms of threats and chances of success. Different institutions will find different measurement methods for the results and the appropriate probability for their needs. For example, many institutions find that the assessment of results and probabilities as high, medium or low is sufficient for their needs and can be represented by a $3 \times 3$ matrix. While other institutions may find that evaluating the results and probabilities using a $5 \times 5$ matrix gives them the best assessment.

- **Methods and techniques of risk analysis**: A number of techniques can be used to analyze hazards. Some are for opportunities or threats or are capable of dealing with both. The results of the risk analysis process can be used to prepare a description of the risk characteristics, which will in turn give a classification according to the relative importance of each risk and provide a tool to prioritize the risk management efforts. This will arrange for each risk identified to give a picture of its relative importance.

- **Risk ranking**: When the risk analysis process is completed, it is necessary to make a comparison between risk assessment and hazard measures prepared by the company. The risk scale may include related returns and costs, legal requirements, social, economic and environmental factors, stakeholder concerns, etc. Therefore, risk ranking is used to make decisions about risks of importance to the company and whether the risk must be accepted or addressed.
- **Risk reporting and communication**: Different levels within the organization require a variety of information about the risk management process, from the level of the board of directors, work units and individuals.

- **Risk management**: Risk management is the process of selecting and implementing procedures for change in risk. Risk management, as one of its most important elements, includes risk reduction / control, and extends further to, for example, risk avoidance, risk financing, etc.

- **Monitoring and reviewing risk management processes**: Effective risk management requires a reporting and auditing system to ensure effective risk identification, examination and appropriate risk control measures have been taken. Periodic policy review and compliance levels must be conducted and performance criteria reviewed to identify development opportunities. It should be remembered that companies are dynamic and operate in a dynamic and changing environment. Therefore, changes in companies and the environment in which they operate must be identified and adequate system adjustments made.

- **Follow-up**: Risk management processes are linked to an integrated set of tools and techniques that are used at different stages of the activity. To work effectively, risk management requires:
  - Commitment of the CEO and top management
  - Distribution of responsibilities
  - Allocation of appropriate resources to train and develop awareness of all stakeholders
Dimensions of the study

**Risk Management Governance and Strategy**

The soundness and health of financial institutions depend on the effectiveness of risk control functions and internal control. Over the past decade, risk management practices and practices in the industry have developed dramatically, with increased attention and sophistication of systems and practices in financial institutions in risk management. Despite this progress, there is still room for further improvement of internal risk management practices that support the sound risk management framework. This includes closer integration within financial institutions in terms of policies, processes and structures to support risk decision-making as well as corporate governance.

Risk management governance focuses on the application of corporate governance principles to assess risk management to ensure that risk operations are in line with the institution's ability to absorb losses and their long-term viability. They are particularly concerned with the role of the board of directors, senior management and risk management in risk management, as well as the processes through which risk information is collected, analyzed and communicated to provide a sound basis for management decisions. It is also concerned with the impact of the organizational structure in the company and related to risk behaviors as well as risk perceptions in the institution.

As a result of increased regulatory requirements by legislators the interest in the subject of supervision of risk management has become prominently featured on the agenda of insurance company boards. However, much work still needs to be done by these companies. For example, 33% of respondents do not have a risk management department.
The risk management strategy provides a systematic and consistent approach to identifying, evaluating and managing risks. They are built in processes and are reviewed based on new developments or actions taken regularly. Risk management strategy can be developed and implemented by even the smallest companies or projects or even in the strategies of large and multinational companies.

The culture of risk:
It is a term describes values, beliefs, knowledge, attitudes and understanding about a common danger by a group of persons with a common purpose, in particular employees of the enterprise. It can be in pricing, can be in the calculation of reserves and may be underwriting (IRM - Risk Culture).

The implementation of risk management in the enterprise cannot be achieved overnight. It is a process that requires time, effort and a lot of commitment. It is recognized by most respondents that educating employees about risk management is a main factor in establishing a risk-conscious culture in their institutions. There are many challenges to incorporate a risk culture in the company.

Risk management and interrelated processes:
Risk management is an ongoing process that should be used to implement the company's overall strategy and should allow for a proper understanding of the nature and importance of the risks to which it is exposed, including sensitivity to and mitigation of risks.

Integrated risk management addresses risks across a variety of levels in the organization, including strategy and tactics, which include both opportunities and threats. The effective implementation of corporate risk management and
interoperability will result in a number of benefits that will be positively reflected on the organization. These include:

- Identify risks at the strategic level which can have a significant impact on the overall construction of the company and can be managed proactively.
- Proactively manage opportunities as part of business operations, both strategically and tactically.
- Provide useful information to decision-makers when the environment is surrounded by uncertainty to support best decisions at all levels.
- Create an area of uncertainty management in advance with a planned response to known risks, thereby enhancing efficiency and effectiveness, and reducing lost time as well as effort.
- Reduces threats and increases profit opportunities and increases the likelihood of achieving strategic and tactical objectives.
- Allowing the acceptance of an appropriate level of risk to be taken by the company with full awareness of the degree of uncertainty and potential impact on the objectives, and open the way to achieving increased rewards that are associated with risk.
- Developing risk culture within the organization, recognizing that risks exist at all levels within the company, but these risks should be managed proactively in order to achieve the desired benefits.

**Supporting technology for risk management**

With the evolution of enterprise risk management in the last decade, this development has to be accompanied by further development of systems for risk management. Without this
technology, risk managers' job is limited to recording risk data from past loss data. Although the cost of developing robust corporate risk management information systems is financially high, the benefit will go beyond direct and tangible costs. Hopkin. (2012). The Company's investment in the introduction and maintenance of a risk management information system is indicative of the Company's effort and commitment to ensure effective and efficient risk management.

Many companies have not made much progress in building risk management systems, and nearly two-thirds of respondents rely on manual documents and tables. data. In the world of technology, insurance companies are struggling with the challenges of ensuring access to quality data. This is due to the lack of prior experience in risk management in a technology friendly environment and to the problem of integrating the risk system with the basic insurance system.

**Previous studies:**

Many studies have addressed the reality of institutional risk management in insurance companies, but these studies have been limited to one or two countries. The most recent of these studies are:

**Ernst Young and Munich Re, (2015)**

A survey conducted in the field, which found that the spread of the insurance industry in the boom was in light of the growth of the market, especially spending on government-supported infrastructure and development projects and large-scale compulsory insurance (cars and medical). It also found that markets are moving towards greater maturity, which has led to major shifts in the regulatory landscape recently, which in turn has resulted from the growing role of regulatory bodies in Saudi
Arabia and the United Arab Emirates. As a result of the changing market and the role of regulatory and regulatory bodies, the interest in corporate risk management has grown and the agenda of executives in the Middle East has become increasingly important.

This study included a study of the status of institutional risk management in the insurance market. The survey was designed to cover the risk management cycle including risk type, risk strategy, risk management process and integration with other business activities. This study concluded that there is a significant difference in risk management practices within the insurance companies and that risk management remains a major challenge for many insurance companies. Even though some insurance companies have already established private administrations.

**Muzaffar Mansour (2016)**

This study focused on the insurance market in the State of Palestine, which aimed to develop an integrated model to address the deficiencies in the Palestinian insurance sector which was carried out through the following axes?

- Studying the risk management practices in the Palestinian insurance companies.
- Main risk analysis facing insurance companies.
- Finally, raise awareness about risk management and its importance.

The study found the following results:

- Evaluation of risk management practices in Palestinian insurance companies.
Identification of main deficiencies in the implementation of risk management plans.
Building an integrated model to address deficiencies in the Palestinian insurance sector

Layal Mahmoud Kamak (2016)
This study is specialized in the Lebanese insurance market. The study found that risk management in institutions is increasing with the increasing attention of regulators and as a result of the global financial crisis in 2008. Many large and medium companies have practiced corporate risk management. Specialized risk management in institutions. The universities have also developed special courses and training programs in 2008. Many large and medium companies have practiced corporate risk management. Specialized risk management in institutions. The universities have also developed special courses and training programs in enterprise risk management.
The researcher studied risk management practices in Lebanese institutions through the themes (culture of risk management, control, risk management and emerging risks), which was used as a research tool to collect data on these axes.
The study concluded that risk management practices in the institution are not sufficient. It also concluded that risk management practitioners in the Lebanese insurance industry were not properly qualified. And insurance companies have measures and perceptions to manage emerging risks that may affect the company's financial position, reputation or competitive position.
The researcher recommended that there should be a qualitative shift in the approach of the Lebanese insurance companies to risk management. The first is to strengthen the risk management culture through intensive staff training and participate in...
seminars to raise awareness of ERM. Insurers should integrate risk management into their corporate objectives, philosophy, practices and strategic plans.

**The methodology of the research:**
The descriptive method was used to construct the questionnaire (Annex 3), which was distributed to collect the research data. A total of 259 questionnaires were distributed to the Jordanian insurance companies based on the level and performance of the companies by sending the questionnaire to a different number of employees of Jordanian insurance companies.

**Design of the survey questionnaire:**
The survey was divided into two sections:
The first section is meant to collect constant information about the participants in the questionnaire, namely age, gender, scientific qualification and the number of employees in the risk management department in their companies, if any, and the number of years of experience
Section two has been divided into four categories as follows:
- Risk management and strategy includes 13 points
- Risk management culture includes 7 points
- Risk management processes and its interdependencies comprising 6 points
- Risk management and supporting technology includes only two sections

In order to achieve the objectives of this study and to test its hypotheses, the five-digit Lycarte was used to answer all the paragraphs of the second section, which includes four axes of 28 paragraphs. The answers were limited to the following grades: Strongly Agree, Agree, Neutral, Disagree and Strongly Agree, 1, 2, 3, 4, 5 respectively while relative weights were given
respectively 100%, 80%, 60%, 40% and 20%. As shown in Table (1).

Table 1

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<th>Neutral</th>
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(Based on the (Nunnally (1978) model, we used the 3.5 or the relative weight of 5/3.5/ = 70% to accept or reject any hypotheses).

Society and Study Sample:
The sample community represents 26 insurance companies operating in Jordan. In order to select the sample, the following criteria were adopted in the distribution and collection of samples by reference to the financial statements of insurance companies registered in the financial markets or official websites of companies. Of these criteria: number of employees, customers, branches, capital size. The following table shows the companies and the number of questionnaires distributed and retrieved from them. Annex (4) shows that the companies participating in the study sample. The researchers examined all the questionnaires, which were excluded from 12 questionnaires, for reasons such as choosing more than one answer to some
questions, and not answering some questions. Thus, \( \frac{259}{247} \times 100 = 95.3\% \) were analyzed.

**The results of the study:**
First, we must verify the reliability and consistency of the data collected in terms of sincerity and reliability. The degree of honesty is a statement of the ability of the questions to measure what was set for it. The questionnaire was presented to a group of arbitrators who are specialized in Jordanian universities in order to judge the extent to which the paragraphs belong to the areas identified and the validity of the paragraphs. As for the degree of stability, this was done by counting the Alpha Kronbach coefficient as shown in Table (2) where it was found that the Alpha Cronbach coefficient for all the axes separately and for all the axes together was high, ranging from 0.739 to 0.972, which is relatively high, confirming data stability and validity for analyzing results and testing hypotheses.

Table (2)

<table>
<thead>
<tr>
<th>Axis</th>
<th>Number of sections</th>
<th>Alpha Cronbach coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axis 1: Risk Management Governance and Strategy</td>
<td>13</td>
<td>848</td>
</tr>
<tr>
<td>Axis 2: Risk Culture</td>
<td>7</td>
<td>746</td>
</tr>
<tr>
<td>Axis 3: Risk management processes and their interdependence</td>
<td>6</td>
<td>749</td>
</tr>
<tr>
<td>Axis 4: Supporting technology for risk management</td>
<td>2</td>
<td>724</td>
</tr>
<tr>
<td>All axes</td>
<td>28</td>
<td>864</td>
</tr>
</tbody>
</table>
The description of the study sample:
The sample included 106 males (42.9% males) and 141 females (75.1%). As for the academic qualification, the sample included 195 or 78.9% of the bachelor's degree or less, 52 or 21.1% of the holders of higher degrees, indicating that the sample includes a high proportion of specialists, which ensures the existence of scientific competencies familiar with the sense of questions and how to answer them, Thing which may explain the existence of high risk culture among the sample. As for the number of years of experience, they were mostly in favor of the category 5-10 years. The groups were less than 5 years, 5-10 years, 10-15 years, 15 years and above, 19.4%, 52.2%, 13% and 15.4%. % Respectively, where the category 4-10 years was the highest. For the post, the posts of employee, supervisor, director and senior positions accounted for 54.7%, 19.8%, 15.4% and 10.1%, respectively. As for the number of employees in the Risk Management Department, the data showed that 42.1% of the participating companies did not have any risk management staff in their companies, while 56.7% of them had 1-5 employees while 1.2% had more employees Of 10 employees. As for age, the data revealed that the 25 and lower categories, 25-35, 35-45, 45-55 and55 and above were 6.5%, 46.6%, 30%, 11.3% and 5.7%, respectively, where the largest share of construction Between 25-35 years, as shown in Appendix 1 for sample details.

Answering description of the study sample
The analysis showed that the response rates for the first, second, third, fourth and all axes were respectively 3.4690, 4.3852, 3.2308, 1.5223, 3.1518. The standard deviations were close to all axes, where the first, second, third, fourth and all axes were 50939. 54666. 58786. 51256. 34200 respectively. Table (3) illustrates this.
Table (3) Average responses of all axes

<table>
<thead>
<tr>
<th></th>
<th>Axis I</th>
<th>Axis II</th>
<th>Axis III</th>
<th>Axis IV</th>
<th>All axes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Medium</td>
<td>3.4690</td>
<td>4.3852</td>
<td>3.2308</td>
<td>1.5223</td>
<td>3.1518</td>
</tr>
<tr>
<td>The arithmetic mean</td>
<td>.50939</td>
<td>.54666</td>
<td>.58786</td>
<td>.51256</td>
<td>.34200</td>
</tr>
<tr>
<td>grade</td>
<td>Agree</td>
<td>Strongly Agree</td>
<td>Neutral</td>
<td>Strongly Disagree</td>
<td>Neutral</td>
</tr>
<tr>
<td>Relative weight</td>
<td>69.38%</td>
<td>87.704%</td>
<td>64.616%</td>
<td>30.446%</td>
<td>63.036%</td>
</tr>
</tbody>
</table>

The analysis of the test results

Test the study hypotheses

In order to test the hypotheses of the study, it must first be ascertained that the average axes are distributed naturally. The analysis showed, as shown in the table below, that the rates of axons separately, including the rate of axes together, follow the natural distribution, since the value of SIG was greater than the level of 0.00% when the level of 95% confidence. As shown in table 4, which means that a T test can be performed on all axes. Table 4
Table (4): 1-Sample K-S T - Test of Kologromsmanov

<table>
<thead>
<tr>
<th>Axis</th>
<th>Risk Management Governance and Strategy</th>
<th>Risks culture</th>
<th>Risk management and interrelated processes</th>
<th>Supporting technology for risk management</th>
<th>Average of all axes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>3.4690</td>
<td>4.3852</td>
<td>3.2308</td>
<td>1.5223</td>
<td>3.1518</td>
</tr>
<tr>
<td>Standard deviation</td>
<td>.50939</td>
<td>.54666</td>
<td>.58786</td>
<td>.51256</td>
<td>.34200</td>
</tr>
<tr>
<td>Z value</td>
<td>.345</td>
<td>.431</td>
<td>.306</td>
<td>.247</td>
<td>.260</td>
</tr>
<tr>
<td>Asymp Sig. (2-tailed)</td>
<td>.09</td>
<td>.076</td>
<td>.077</td>
<td>.065</td>
<td>.110</td>
</tr>
</tbody>
</table>

On other hand, all relative weights of all axes are calculated as in Table (5) below.
Table (5)

Relative weights of all axes

<table>
<thead>
<tr>
<th>Axis</th>
<th>Number of paragraphs</th>
<th>Mean arithmetic</th>
<th>Standard deviation</th>
<th>Degree</th>
<th>Relative weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Management Governance and Strategy</td>
<td>13</td>
<td>3.4690</td>
<td>.50939</td>
<td>Agree</td>
<td>69.38%</td>
</tr>
<tr>
<td>Risk management culture</td>
<td>7</td>
<td>4.3852</td>
<td>.54666</td>
<td>Strongly agree</td>
<td>87.704%</td>
</tr>
<tr>
<td>Risk management processes and their interdependence</td>
<td>6</td>
<td>3.2308</td>
<td>.58786</td>
<td>Neutral</td>
<td>64.616%</td>
</tr>
<tr>
<td>Technology support for risk management</td>
<td>2</td>
<td>1.5223</td>
<td>.51256</td>
<td>Strongly disagree</td>
<td>30.446%</td>
</tr>
<tr>
<td>Average of all axes</td>
<td></td>
<td>3.1518</td>
<td>.34200</td>
<td>Neutral</td>
<td>63.036%</td>
</tr>
</tbody>
</table>

First hypothesis test: There are no statistically significant differences between the level of risk management governance and its strategy in the Jordanian insurance companies and the imposed level (70%) at the level of significance ($\alpha \leq 0.05()$) from
the point of view of the participants. Table (5) shows that the average for all paragraphs of the first axis was 3.4690 and a relative weight of 69.38%. This means that the risk management governance and strategy did not reach the required level, meaning that the companies did not achieve the required level of risk management governance and strategy.

When testing one sample T-Test as in Table 6, the test shows that \( P = .340 \) \( t (246) = -956 \), which means rejecting the zero hypothesis that there are no statistically significant differences between the sample and the required level, which means "the level of risk management governance and strategy is close to the level imposed from the point of view of the participants."

### Table 6

<table>
<thead>
<tr>
<th>Axis</th>
<th>95% Confidence Interval of the Difference</th>
<th>Mean Difference</th>
<th>Sig. (2-tailed)</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upper</td>
<td>Lower</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Management Governance and Strategy</td>
<td>.0329</td>
<td>-.0948</td>
<td>-.03099</td>
<td>.340</td>
<td>246</td>
</tr>
</tbody>
</table>

**Second Hypothesis test:** There are no statistically significant differences between the level of risk management culture in Jordanian insurance companies and the level imposed (70%) at the level of significance \( \alpha \leq 0.05 \) (from the participants' point of view).
Table (5) shows that the average for all sections of the second axis was 4.3852 with a relative weight of 87.704%. This means that the level of the risk management culture is better than the required level from the participants’ point of view. In the sample T-Test, as shown in Table (7) below, \( p = 0.00, t (246), 25.449 \) means that there are statistically significant differences from the required level, which is 0.88519. Therefore, the null hypothesis was rejected, which means that the level of risk management culture is better than the level originally imposed.

**Table 7**

<table>
<thead>
<tr>
<th>Axis</th>
<th>95% Confidence Interval of the Difference</th>
<th>Mean Difference</th>
<th>Sig. (2-tailed)</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Upper</td>
<td>Lower</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk culture</td>
<td>.9537</td>
<td>.8167</td>
<td>.88519</td>
<td>.000</td>
<td>246</td>
</tr>
</tbody>
</table>

The test of third Hypothesis: There are no statistically significant differences between the level of risk management processes and their correlation in the Jordanian insurance companies and the level imposed (70%) at the level of significance \( \alpha \leq 0.05 \) (from the point of view of the participants). Table (5) shows that the average for all three axes of the third axis was 3.2308 with a relative weight of 64.616%. This means that the level of risk management processes and their interdependence are below the required level from the participants' point of view.

When testing one sample T-Test as shown in Table (8) below, it was found that \( p = 0.00 t (246), -7.198 \), which means rejecting
the null hypothesis. As it is clear, the arithmetic average of the sample is lower than that which is supposed to be -2.6923. The zero hypotheses were therefore rejected, which meant that the level of risk management culture was below the required level from the participants' point of view.

Table 8
One sample T-Test of the Risk management and interrelated processes

<table>
<thead>
<tr>
<th>axis</th>
<th>Mean Difference</th>
<th>95% Confidence Interval of the Difference</th>
<th>Sig. (2-tailed)</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk management and interrelated processes</td>
<td>-.26923</td>
<td>-1.956 to -.3429</td>
<td>.000</td>
<td>246</td>
<td>-7.198</td>
</tr>
</tbody>
</table>

The test of fourth Hypothesis:
There are no statistically significant differences between the level of support technology for risk management in the Jordanian insurance companies and the imposed level (70%) at the level of significance ($\alpha \leq 0.05$) from the point of view of participants. Table (5) shows that the average for all three axes of the third axis was 1.5223 with a relative weight of 30.446%. This means that the level of support technology for risk management is
below the required level from the point of view of the participants, meaning that the companies do not achieve the required level of support technology for risk management from the point of view of participants. When testing one sample T-Test as in Table 9 below, T (246), -60.642, p = 0.00. Therefore, the zero hypothesis was rejected, which means that the level of support technology for risk management is below the required level as it is lower by -1.97773 of the imposed level.

Table 9
One sample T-Test of the axis of supporting technology for risk management

<table>
<thead>
<tr>
<th>Axis</th>
<th>95% Confidence Interval of the Difference</th>
<th>Mean Difference</th>
<th>Sig. (2-tailed)</th>
<th>df</th>
<th>t</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting technology for risk management</td>
<td>-1.9135, -2.0420</td>
<td>-1.97773</td>
<td>.000</td>
<td>246</td>
<td>-60.642</td>
</tr>
</tbody>
</table>

Fifth hypothesis test: There are no statistically significant differences between the level of risk management in general in the Jordanian insurance companies and the level imposed (70%) at the level of significance (α0.05) from the point of view of the participants Table 5 shows that the average for all four axes together was 3.1518 and a relative weight of 63.036%. This means that the level of risk management is generally below the
required level from the participants' point of view. In other words, companies do not achieve the level of risk management in general from the participants' point of view. When testing one sample T-Test as in Table 10 below, T (246), -16.001, p = 0.00. Therefore, the zero hypothesis was rejected, which means that the level of risk management is generally below the required level from the participants' point of view, Which is less than that at -34819.

**Six hypothesis test:**
There were no statistically significant differences in the responses of the participants at the level of significance (α≤0.05) due to demographic variables such as sex and age
In order to find differences in the responses of the sample, the ANOVA was performed. As shown in Annex 2, after the ANOVA test for all axes it was found that
1. There are no statistically significant differences at the level of significance of 0.01 and 0.05 due to the number of employees in the risk management department and not on any of the four axes or with axes as a whole
2. It was found that there were no statistically significant differences at the level of significance of 0.01 and 0.05 attributed to gender on the answers of participants on all axes
3. It was found that there are differences between the answers of the participants attributed to the scientific qualification on all axes where the value of P = 2.832 and the value of significance 0.094. It is in favor of grades with an average of 3.1397 while the average BSc is 3.0454.
4. It was also found that there were differences in the responses of the sample members due to the number of years of experience on the first axis paragraphs in favor of the
5. There were also differences between the answers of the sample according to the function on the following axes: The second axis in favor of the supervisor category where the calculation center is 3.0918, and the fourth axis in favor of the employee category where the calculation center 4.0722. On the other hand, it was also found that there were differences between the responses of the sample by age on the following axes: the second axis in favor of category 55 and above where the mean was 3.3750, the third axis in favor of category 55 and above where the mathematical mean was 3.1429, the fourth axis in favor of category 45-55 Where the mean was 3.8214. Annex 2 shows the values and values of significance or sig of all previous Anova choices.

Table (10)
One sample T-Test Average of all axes

<table>
<thead>
<tr>
<th>95% Confidence Interval of the Difference</th>
<th>Mean Difference</th>
<th>Sig. (2-tailed)</th>
<th>df</th>
<th>t</th>
<th>axis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper</td>
<td>Lower</td>
<td>Mean Difference</td>
<td>Sig. (2-tailed)</td>
<td>df</td>
<td>t</td>
</tr>
<tr>
<td>- .3053</td>
<td>- .3911</td>
<td>- .34819</td>
<td>.000</td>
<td>246</td>
<td>-16.001</td>
</tr>
</tbody>
</table>
Conclusions and recommendations:
By reviewing the research methodology and descriptive survey findings, the researchers recommend:
1. Activate the role of risk management through the establishment of specialized departments in this field.
2. Activate the role of regulatory and legislative bodies to play a greater role in order to ensure the existence of these departments and improve the procedures and instructions provided by these bodies in this field.
3. Increasing the role of academic institutions represented by universities, consulting companies and specialized training centers, which ensures the upgrading and efficiency of the staff of risk departments.
4. Encouraging companies through regulators to adopt global standards in risk management such as ISO 3100 and COSO.
5. Encourage companies to develop a risk management plan and budget for risk management.
6. Directing companies to develop approved risk management policies.
7. Draw attention to the importance of risk management information systems and ensure the confidentiality of their information.
8. Draw the attention of companies to raising the level of risk management governance and strategy in the insurance companies.
9. Encourage increased level of risk management processes and their interconnection between insurance companies.
10. Draw the attention of researchers and academic institutions to the importance of scientific research and studies in this field to show the importance of Jordanian insurance companies and increase the desire to manage risk at the present time and future.
References


