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# CIVIL AVIATION AND RISK MANAGEMENT CASE STUDY: BEIRUT RAFIC HARIRI INTERNATIONAL AIRPORT

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**ABSTRACT** **This article discusses the topic of risk management in the civil aviation sector with a case study that concerns the BRHIA airport in Beirut. It consists of two parts, the first is theoretical and is a bibliographic review of various researches that fall under the topic of risk management and different definitions and strategies of crisis management, as well as the various gaps that weaken this field. The second part is the case study with all the steps necessary for its conduction, such as the definition of the study's methodology, the choice of the sample, the variables of the study tools needed, and the questionnaire. 189 persons at the General Directorate of Civil Aviation in Lebanon, SPSS results show that crisis management, professional experience and all their components exert a strong influence on crisis management; whereas the conflict of power, political interference and all their components as well as the organization's performance, coordination, control, auditing and all of its components exert a negative influence on crisis management. This study with its theoretical and practical parts, including the quantitative parts, allow us to study the different dimensions of the crisis which are related to the variables selected from the questionnaire and classified into 8 categories of labels: 1-Perception of the nature of the crisis, 2- Coordination and Cooperation, 3-Training, 4-Power Conflict, 5-Political Intervention, 6-Practice of Control and Audit, 7-Organizational Performance, 8-Crisis Management and Professional Experiences.**

**KEYWORDS** :BRHIA, normal incident, BCM, crisis management, response, Beirut,

## INTRODUCTION

Today, the safety of an air terminal requires a deep understanding and a perfect mastery of its various parts to prevent the malicious, sometimes arranged, attitude of the terrorists

Although BCM (business continuity management) is an emerging practice, there is little evidence in the existing literature of the widespread application of this process in the aviation industry.

Wesensten, N.J., (2014)reviewed the Business Continuity Plan used by the Australian Customs Service, which aimed at maintaining urgent clearance in the event of total or partial loss of critical computer systems. Dhaevers et al., (2016) examined how continuity approaches can improve logistics flows at airports, and NASA (2016)used the example of Air New Zealand to show how BCM can help ensure the survival of an airline company.

### A-Research Questions

What are the relation between **civil aviation and risk management?** And, how the General Directorate of Civil Aviation in BRHIA evaluating the crisis' plan?

## B-Specific objectives

RO1. To distinguish the critical components of crisis management for a long term

RO2. To inspect the connection between crisis plan and crisis management team.

RO3. To analyze the weak masses and the means of communicating

RO4. To analyze the connection between the determination of the crisis and attack of the crisis at the right time.

## C- Study tool

This article covers the following aspects:

1. **Steps to create the study** tool: The researcher used a questionnaire to collect data and information about the study. The questionnaire is one of the most commonly used scientific research tools in analytical descriptive research and is defined as a systematic survey tool consisting of a set of systematic steps, starting with identifying the required data and ending with receiving and organizing forms in a way that saves time, effort and expense.
2. **The purpose of the study tool:** The objective of the study tool is: Identify the impact of the performance of crisis variables on crisis management. Identify the differences between the average responses of the study population according to study variables (age, gender, administrative level, academic qualifications, and years of experience).
3. **Formulation of the paragraphs of the study tool:** The formulation of the paragraphs of the study tool was as follows:

- Review of the theoretical literature on the performance of crisis management and the analysis of variables.
- Review of measures from previous studies used to identify the effect of variables on crisis management.
- Review of previous studies and related topics to identify the terms of each axis of the study tool and the formulation of its paragraphs.

## D-Research Hypothesis

**H01:** There is no statistically significant relationship of the crisis management model and professional experience on crisis management.

**H02:** There is no statistically significant relationship between the model of power conflict and political interference on crisis management.

**H03:** There is no statistically significant relationship of the organizational performance model, coordination, control and audit to crisis management.

## E-Importance of the study

The significance of this examination comes from the accompanying

reasons:

1. Lack of studies and logical research that deal with the relation between civil aviation and Risk management.
2. To know some detailed facts on the studied phenomenon, which makes it possible to diagnose the reality.
3. Identify problems or provide evidence to demonstrate actual behaviors and current situations.
4. The analysis of specific experiences in order to benefit from them in making decisions on similar issues.

## 2. Literature

## A-Theoretical framework of the study

**The airport flow,**a flow is defined as moving people or objects along a well-defined path to move from one point to another. A wide variety of flows exist at the airport: flows of passengers, personnel, vehicles, aircraft, luggage, service and others. These flows are able to interact with each other or not, Paté-Cornell, M., (2016). The person or the dangerous body necessarily take the way of the flows of people and goods carried out at the airport.

The generally accepted rules for flow management are:

- No flow mixing at the start

- No flow mixing on arrival (a tolerance applies if both flights have the same regime)

- No flow crossing

- Existence of alternative routes in case of degraded situation

- Reduction of distances to be covered

- Signaling corresponding to these rules

To all the above is added a set of characteristics, previously advanced in various definitions of the literature and summarized in Table 1.

**Table 1:Summary of characteristics identified**

| Author | To remember |
|---|---|
| Thornton (2008) | Business continuity plan of the Australian Customs Service to maintain urgent customs clearance in case of total or partial loss of essential computer systems. |
| Skelton (2007) | How continuity approaches can improve logistics flows at airports |

**Source: Paté-Cornell, M., p. 10 « Summary of characteristics identified » (2016)**

*The existing literature contains little evidence of the widespread application of the business continuity management process in the aviation industry. Airport-wide BCM studies have focused on the large-scale benefits of continuity in the protection of critical infrastructures of national importance. The goal of ensuring continuity at airports is of a safe nature, Van den Top, J. (2010)*
*A flow in the airport is defined as a movement of people or objects along a well-defined path from one point to another. The general safety rules require constraints concerning the non-mixing of certain flows Technical (2018).*

The dashboard design. Circulation of airport staff, airlines and service companies For example, the reserved area of the airport in France is divided into four geographical areas:

**A- Plane:** In this zone, all the staff in charge of taking care of the aircraft during its stopover (refuels, baggage handlers, etc.) can circulate close to the plane;

**B- Luggage:** This zone constitutes of the baggage galleries; the handlers and security operators that baggage can pass through;

**F- Freight:** This zone is intended for freight activities;

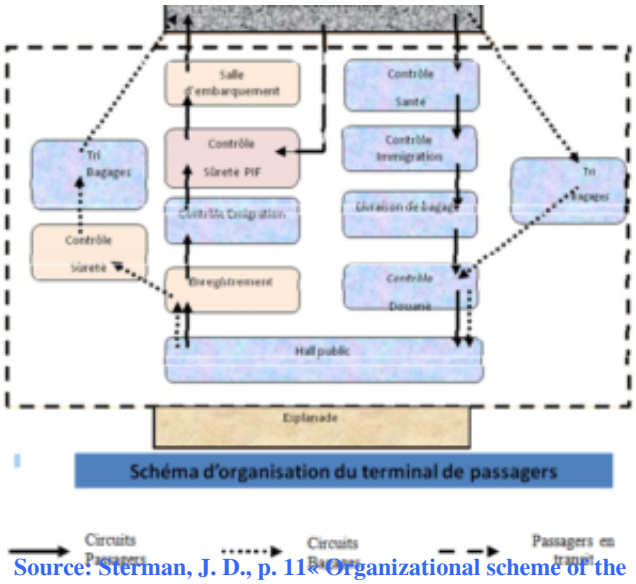
**P- Passengers:** This zone contains the terminal areas according to where passengers are traveling.

**Circuit for passengers and hand luggage**, Different steps determine the way of passengers in the airport. The necessary steps depend on the passengers, and their arrangement depends on the composition of the terminal, Sterman, J. D., (2010). However, in this study a simplified circuit is examined, using the steps and controls common to all airports, Shaw, L. S., (2011).

A simplified diagram of the starting and ending circuits is shown in the figure below.

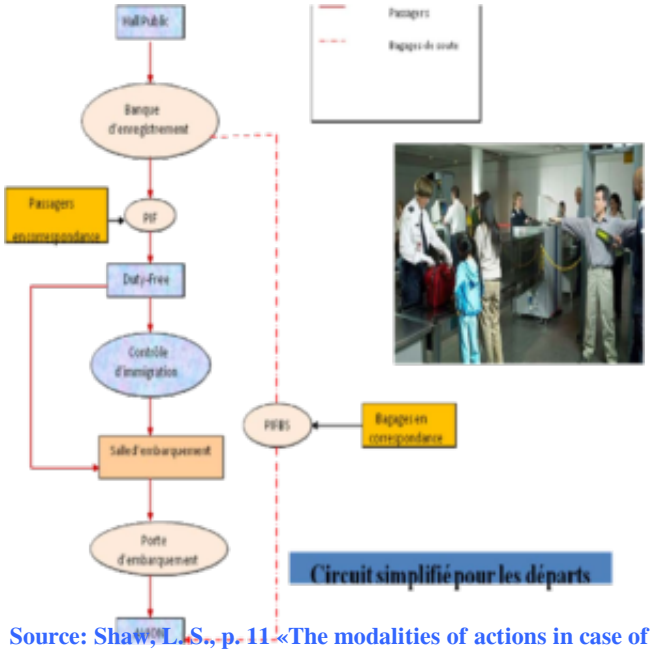
In this diagram, there are the main controls imposed on passengers and baggage to ensure security in the terminal and on the aircraft.

**Figure 1: Organizational scheme of the passenger terminal**




**Source: Sterman, J. D., p. 11« Organizational scheme of the passenger terminal », (2010)**

**Figure 2: The modalities of actions in case of crisis**




**Source: Shaw, L. S., p. 11 «The modalities of actions in case of crisis », (2011)**

*In order to avoid any interference by a dangerous person at the airport, airlines and all airport employees are required to have a security badge when they are in a restricted area. The possession of a security badge does not give access to the entire reserved area of the airport.*

**Identification of gaps**

**Gap 1: Existing BCM as a practitioner discipline**

BCM, Business Continuity Management, is a process that has developed from practical solutions in response to the problem of crisis management and lower level disruption, Kendall, M., (2012).

Although many important authors, Kennedy, R (2018) have published numerous publications on this process. They are largely focused of on the BCM components details, or their applications, in different sectors or organizations. There is still no strong link between the discipline of BCM practitioners and the existing theory.

A review of the literature that identifies a number of theoretical approaches helps to understand concepts related to crisis and disturbance management.

## Gap 2: Lack of resources to achieve high reliability

The explanation of practices that can be used by organizations to become very reliable is insufficient. This is an area in which a more empirical base is needed in order to establish business strategies to achieve high reliability. This issue is further complicated since many of the organizations involved were military or quasi-military, maintaining a strict hierarchical structure and a consistent respect for the procedure and rules, Isaac, A., (2012).

It is possible that the underlying structural difference between military and civilian organizations alters the way in which high reliability principles can be applied. It is therefore an essential area of distinction that requires further empirical research, IATA (2017) .This includes both the identification of practical strategies that can be achieved by human resources and their application to civil organizations.

## B-Previous studies

In the opinion of the researchers, the phases of a crisis are different, but most of them have points in common. According to all the studies, these crises consist of a prolonged or short ascending phase (short in case of sudden crises), depending on the type of crisis. Then the crisis reaches its peak symbolizing its point of maximum intensity and stagnates sometimes.

In terms of business continuity management, this research study of aviation safety requires a deep understanding of these various concepts and processes to prevent the intrusion of terrorists. However, these concepts and processes are developed in the theory and there is still no consistent relationship between the discipline of practitioners and the existing theory.

*Business continuity management is a process that has developed from practical empirical solutions. High reliability has been well established by empirical research mainly based on observations of civilian or military organizations that have reached high levels of reliability. As this is an essential area of distinction, it requires more in-depth empirical research.*

In order to understand the nature of organizational failure, key theories about organizational failure need to be considered as the concept of a normal accident.

## A-The concept of normal accident

The genesis of the concept of a normal accident arises from the occurrence of a series of highly influential accidents in complex socio-technical systems, where the specialists have tried to better understand how they occurred. Kendall's M., (2012) concept of normal accident emerged from this quest for understanding.

The concept of a normal accident, basically, bases its analytical objective on two key parameters: interactive complexity and tight / loose coupling, related to the opposite components of any organization, control system or complex institution, Pinder, C. C., (2018).

This results in complex and unwanted interactions between the two pre-existing conditions (vulnerabilities), and unusual or unexpected interaction between the system components leading to conditions in which the security and / or control systems are disabled, the role of interactive complexity and tight / loose coupling (weak / strong) that Perrow associates with "normal accidents".

## B- Complexity coupling relationship

The relationship between complexity and coupling, as well as the impact on system vulnerability, can be illustrated in more details using the classic Kurowicka, D diagram, which presents the four quadrants of the concept of a normal accident. It is noted that even though aircraft and airways remain relatively complex and tightly coupled, accidents will continue to occur, particularly when humans are pushing these systems to higher operating levels.

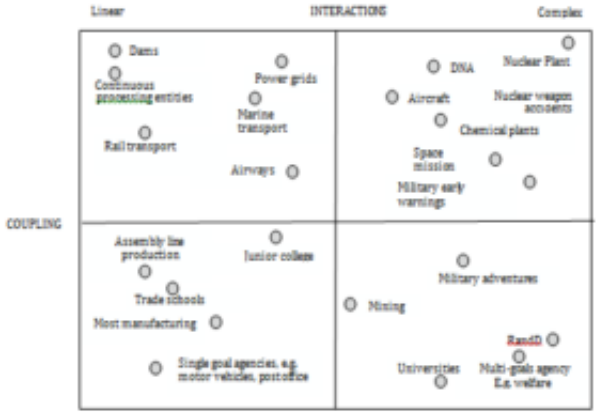
Figure 3 shows that aircrafts and the wider aeronautical industry (airways) have a tight coupling, and identifies airports as being a system that is both closely coupled and interactive.

When applied to organizations, the combination of complexity and tight coupling provides an interesting insight into the causal sequence

of failures that can quickly degenerate into the system before understanding and recovery is possible, Mosleh, A., (2012).

A Normal accidents, such as failures resulting from interactions between components of a technical system, are not anticipated because of the very large number of potential interactions in complex systems, Meyer, J. (2011).

**Figure 3: Complexity Coupling Relationship Kuro wicka, D. (2014)**




**Source: Mosleh, A., p. 13 « Complexity Coupling Relationship Kuro wicka », (2012)**

While accidents can be expected in large and complex organizations, the means by which relatively minor disturbance impacts can degenerate into a system to create major failures is an important aspect of post-conflict incident analysis.

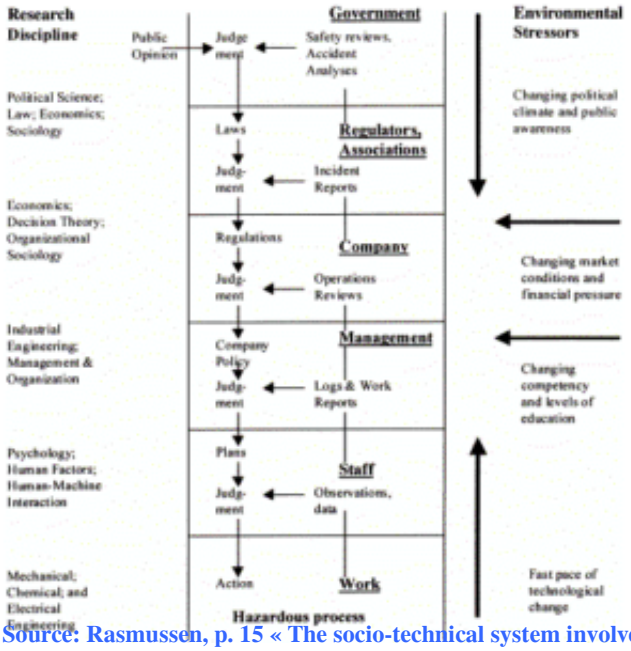
LOSA Collaborative seeks to explain this phenomenon by dividing complex systems into four distinct levels, consisting of a part, a unit, a subsystem and a system.

LOSA Collaborative (2017),Locke, E. A., (2017)states that a simple way to look at these different levels is in the context of a nuclear reactor.

*The genesis of the concept of a normal accident stems from the occurrence of a series of highly influential accidents in complex sociotechnical systems. The concept bases its analytical goal on two key parameters: tight / loose coupling and interactive complexity.*
*Thus the concept of normal accidents are presumed to contain complex interactions and tight coupling of components within the system. This combination of complexity and tight coupling in organizations can cause a sequence of failures that can escalate rapidly into the system long before the problem is captured and the situation corrected.*
**Aviation as a complex hierarchical system,** Rasmussen (2017) used several levels to describe the complexity of a socio-technical system involved in security control, as shown in Figure 4.

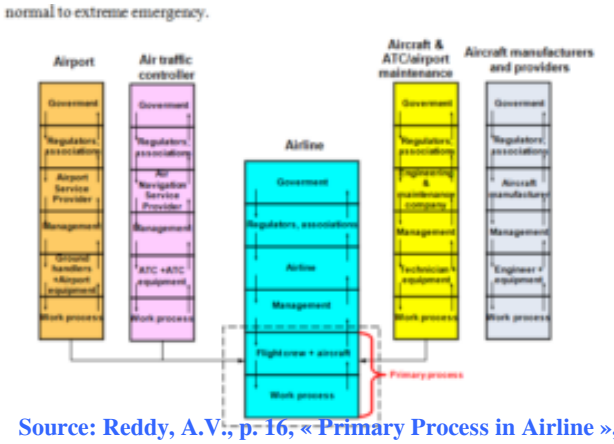
At the top, society controls security through the legal system and sets rules. . Each company must interpret and implement these rules by defining its objectives, choosing appropriate risk control measures and deploying resources.

**Figure 4: The socio-technical system involved in risk management in aviation (adapted from Rasmussen, 2017)**




**Source: Rasmussen, p. 15 « The socio-technical system involved in risk management in aviation», (2017)**

**Figure 5: Primary Process in Airline**




**Source: Reddy, A.V., p. 16, « Primary Process in Airline », (2014)**

Within the company, management must put in place effective, appropriate and sufficient risk control measures that operate throughout their life cycle.

People at the lowest level of the safety performance chain must perform a series of actions in order to keep the work process within operational and safety limits to prevent any event of failure before the accident, Reddy, A.V., ( 2014).

Each stakeholder has a system across hierarchical levels, ranging from government to individual work processes in security control. Global security depends not only on each individual responsibility and contribution to security, but also on the correlation between these systems and their integration into a comprehensive global security management system and culture [Ben Mena, 2010] .

*Rasmussen (2017) used several levels to describe the complexity of a socio-technical system involved in security control. Each stakeholder has a system across hierarchical levels, ranging from government to individual work processes in security control [Bouyssou et al., 2016]. Global security depends on individual responsibility, the contribution to security, the correlation between these systems and their integration into a safety management system [Caillé, 2013].*

## 3. Methodology

In general, this study aims to describe and analyze the factors affecting Civil aviation and Risk management, First an , Overview of the General Directorate of Civil Aviation in Lebanon , The General Directorate of Civil Aviation is one of the directorates of the Ministry of Public Works and Transport, whose work is governed by Regulatory Decree No. 1610 of 26/7/1971.

The General Directorate of Civil Aviation, which includes in its structure the management of the airports and the technical investment department, and nine technical and administrative departments, as well as the presidency of the airport and Diwan, seeks to organize and to operate the Rafic Hariri International Airport, Lebanon's gateway to the world.

This division brings together an administrative staff and technical experts in air navigation control, aviation safety and air transport, equipment maintenance, facilities, aerial surveillance and communications. It also brings together engineers for the preparation of studies, researches, rehabilitation and development projects, in addition to a team working in the field of health and fire, which strives to improve investments in the aviation sector in accordance with scientific and technological development, on one hand, and respecting the rules, laws and standards imposed by international conventions and treaties in the field of aviation and its security, on the other hand.

The General Directorate of Civil Aviation has been coordinating with the International Civil Aviation Organization (ICAO), with various agencies and administrations of civil aviation and foreign airports in order to contribute to the development of the civil aviation sector, and it aspires to be one of the important facets of Lebanon.

## A-The study framework: variable and Population

The variables of the study were divided into two main parts:

- The Independent variables: These are the variables that make a certain change in the actuality and the observation of the results, and its effects on the dependent variable.

These independent variables include:

1. Crisis Management Performance: This includes the following: Nature of the crisis, coordination and cooperation, training, power conflicts, political intervention, monitoring and audit, organizational performance, management and experience.

2. Demographic characteristics: which include gender, age, administrative level, academic qualifications, and years of experience.

- The dependent variable, includes crisis management.

The study population includes a sample of the staff of the General Directorate of Civil Aviation in Lebanon, located in Beirut.

The questionnaires have been distributed to a number of employees of Directorates, Boards, Chambers, Divisions and Offices of the General Director, who constitute the General Directorate of Civil Aviation in Lebanon see Table (2). The study population was determined from these levels for their experience and qualification to answer the questions in the study. The study sample consists of (195) employees spread over most of the institution's directorates. After the questionnaire was distributed to the employees concerned, the researcher retrieved (189) and excluded (6) questionnaires for non-compliance with the requirements of scientific research (such as not responding to general information or giving two answers to the same question which makes it difficult for the researcher to choose the appropriate answer). Therefore, the percentage of accepted questionnaires is (96.9 %), which is a high percentage and valid for performing analysis and access to results related to the phenomenon of the subject of the study.

**Table 2: Study population.**

| Number | Administrative unit | Number of workers | percentage of workers% |
|---|---|---|---|
| 1 | Branch of the Director General's Office | 97 | 80 |
| 2 | Customs | 10 | 6 |
| 3 | IT and Communications Branch | 15 | 14 |
| 4 | Air Operations Branch | 23 | 1 |
| 5 | Air Operations Branch | 42 | 30 |
| 6 | Device maintenance | 75 | 30 |
| 7 | Air Transport | 5 | 5 |
| 8 | Air safety | 4 | 4 |
| 9 | Crime Branch | 2 | 2 |
| 10 | Airport | 2 | 1 |
| | Total | 275 | 189 |

**Source: researcher**

### 4. Results and Discussion

The study sample can be categorized into five groups (age, gender, administrative level, academic qualification, and years of experience). Below is a description of the demographic characteristics of the sample elements:

- **Frequencies**

## 1-Gender:

The statistical analysis in the sample of the study showed that about (89.4%) of the respondents were men and (10.6%) were women, as shown in Table (3).

**Table 3: Distribution of study members by gender variable.**

| Variables | Frequency | Percentage | Mean | Standard Deviation | Mode |
|---|---|---|---|---|---|
| Men | 169 | 89.4% | 1.6308 | 0.484 | 2.00 |
| women | 20 | 10.6% | | | |
| Total | 189 | 100 % | | | |

**Source: researcher from Statistical Analysis Results (SPSS)**

## 2- Age:

The statistical analysis of age in the study sample showed that 8.9% of the total respondents belonged to the age group of people under 25 years, while 23.3% of the respondents belonged to the age group from 25 to 35 years.

The third age group, which includes individuals aged between 35 to 45, was 27.6%. The highest percentage belongs to the group of people aged between 45 and 55 years was 32.8%. Finally, the age group of individuals aged 55 and over represented 7.4%, as shown in the table (4).

**Table 4: Distribution of people in the study by age variable.**

| Variables | Frequency | Percentage | Mean | standard Deviation | Mode |
|---|---|---|---|---|---|
| Less than 25 years | 17 | 8.9% | 3.3308 | 1.06668 | 4.00 |
| from 25 to 35 | 44 | 23.3% | | | |
| from 35 to 45 | 52 | 27.6% | | | |
| From 45 to 55 | 62 | 32.8% | | | |
| Greater than 55 ans | 14 | 7.4% | | | |
| Total | 189 | 100% | | | |

*Source: researcher based on SPSS analysis results*

## 4.2 Regression Analyses

**Table 5:T-testcorrelationcoefficient between crisis management in the General Directorate of Civil Aviation in Lebanon with each of the aspects studied.**

| variables | Pearson Correlation | Sig. (1-tailed) | Sample size |
|---|---|---|---|
| Crisis management and professional experience | .483** | .000 | 189 |
| Power conflict and political interference | -.133 | .066 | 189 |
| Free crisis management performance | -.084 | .172 | 189 |

### 5- Finding Results

**There is no statistically significant relationship of the crisis management model and professional experience on crisis management.**

A coefficient correlation has been established to determine the impact of crisis management and professional experience on crisis management within the General Directorate of Civil Aviation in Lebanon. Table (5) shows that the coefficient correlation is (0.483) and the significance value is (0.000), less than (0.05). This means that there is a strong positive correlation between crisis management and professional experience on the one hand and crisis management on the other hand at the 0.05 significance level.

This means that crisis management, professional experience and all their components exert a strong influence on crisis management at the General Directorate of Civil Aviation in Lebanon.

**There is no statistically significant relationship between the model of power conflict and political interference on crisis management.**

Also a coefficient correlation has been established to determine the impact of power conflict and political interference on crisis management at the Directorate General of Civil Aviation in Lebanon. Table (5) shows that the correlation coefficient is (-0.133) and the significance value is (0.066), greater than (0.05). This means that there is a negative correlation between power conflict and political interference on one hand and crisis management on the other hand at a significance level (0.05).

This represents that the conflict of power and the political interference as well as all that composes them have a negative influence on the crisis management at the General Directorate of Civil Aviation in Lebanon.

**There is no statistically significant relationship of the organizational performance model, coordination, control and audit to crisis management.**

The coefficient correlation has also been established to determine the impact of organizational performance, coordination, control and audit on crisis management at the General Directorate of Civil Aviation in Lebanon. In table (5), we can also notice that the coefficient correlation is (-0.084) and the significance value is (0.172), greater than (0.05). This means that there is a negative correlation between power organizational performance, coordination, control and audit on the one hand and crisis management on the other hand at a significance level (0.05). This means that the organization's performance, coordination, control, auditing and all of its components exert a negative influence on crisis management at the General Directorate of Civil Aviation in Lebanon.

## 6- Discussion

The results obtained in the two theoretical and practical parts, including a quantitative studies, allow us to study the different dimensions of the crisis within the civil aviation department of the BRHIA, taking as a reference the model proposed by Roux Dufort.

The types of crisis likely to confront BRHIA's civil aviation department are diverse and can be grouped into political, technical, informative, strategic or economic, legal, ethical and finally human or social.

These crisis can be related to the variables of the quantitative study and classified into 8 categories of labels to recall: 1-Perception of the nature of crisis, 2- Coordination and Cooperation, 3-Training, 4-Power Conflict, 5-Political Intervention, 6-Practice of Control and Audit, 7-Organizational Performance, 8-Crisis Management and Professional Experiences.

**Economic dimension of the crisis:** Lebanon suffers from a crisis in its economic sector that has economic repercussions on BRHIA's civil aviation department.

**Ethical dimension of the crisis:** In Lebanon, recruitment must be done taking into account the sectarian diversity of the population to

keep the balance in the distribution on. We propose in this dimension to analyze the social acceptability of the crisis.

**Legal dimension of the crisis:** BRHIA's civil aviation department also has a legal dimension in part because of judicial protection. This dimension can be linked to the axis of power conflict and that of political intervention.

**Technical dimension of the crisis:** This dimension can be linked to the axis of coordination and cooperation, of training and organizational performance. And this requires major structural changes in BRHIA's civil aviation department.

**Informational dimension of the crisis**: This is related to the importance of information in crisis management in BRHIA's civil aviation department. This dimension can be linked to the axis of coordination and cooperation.

**Human and Social Dimension of the Crisis:** The human and social dimension concerns all the interactions between the organization and the staff or the organization and the machines. This dimension can be linked to the Perception of the nature of crisis axis, the control and audit practice axis, the organizational performance axis and the crisis management and professional experiences axis.

**Political dimension of the crisis:** This dimension can be linked to the axis of power conflict and the axis of political intervention

**Summary of finding**

This article has highlighted multiple accident causalities within the general direction of civil aviation in the BRHIA, which can be considered a crisis if they are not resolved. In addition it highlighted through the eight variables obtained during the qualitative and quantitative study, many points to develop, improve or implement within the general directorate of civil aviation BRHIA. Therefore, the following recommendations are proposed to the regulatory authority in the General Directorate of Civil Aviation of BRHIA, to practitioners and academics.

**Regulatory authority in the General Directorate of Civil Aviation of BRHIA,**Specific recommendations to the regulatory authority include:

Improving the quality of human resources within the regulatory authority, particularly the Ministry of Transport by;

(1) Reviewing the existing aviation regulations;

(2) Strengthening the enforcement of air transport regulations;

(3) Improving of development planning in the air transport system.

(4) Providing officers with continuous training and workshops;

(5) Reviewing and revising the bureaucratic system;

(6) Ensuring adequate salaries for staff, in particular those who perform the duties of inspector and who are responsible for licensing;

(7) Establishing a safety culture within the regulatory authority within the General Directorate of Civil Aviation of BRHIA.

## CONCLUSION

The proper diagnosis of crisis in BRHIA's civil aviation department is the key to dealing with crisis. A correct diagnosis is based on knowledge, practice, experience, perception and, above all, on the abundance of information available to decision-makers or the people responsible for diagnosing the crisis.

Therefore, the task of a thorough diagnosis is not only to know the causes and motivations of the emergence of the crisis and the factors that have helped them, but the need to determine how to resolve the crisis, when and where, who is in charge of managing it, and what the operation of crisis management requires as information, communications and support tools.

Crisis management by the civil aviation department of BRHIA in Lebanon requires a complete awareness of all that can confront the decision maker in this department in the light of the existence of several administrative constitutions and governance that dictate the manner of behaving.

Based on the test results and discussion of research can be concluded the recommendations as follows:

The Directorate General of Civil Aviation in BRHIA will continue evaluating the crisis' plan, which is considered the last step in the operation of setting a communication plan for the crisis. The Directorate should also evaluate the post-crisis plan through the crisis management team that evaluates and examines all the aspects, successes and mistakes of the crisis achieved on all levels. The steps that were agreed on are:

- Setting a guide for the expected crisis.
- Setting politics to avoid crisis.
- Determination the weak masses and the means of communicating with these masses as soon as possible.

In the end, a clear picture of the role of the communication and public relations in crisis management can be given by the Directorate General of Civil Aviation in BRHIA, based on the model that was considered, through the following points:

The Management of local crisis through communication and public relations is still in its beginning due to the ambiguity and the generality of all types of modern governance (communication during the crisis/ public relations with the crisis). This naturally led to the lack of existence of scientific and practical samples and perceptions to deal with the crisis, what led many Lebanese public institutions to face some conditions with unexpected consequences.

The massive overlap, between the governance of the Security Services and the Senior Management in the Directorate General of Civil Aviation in BRHIA in Lebanon, undermined the credibility and independence of the decisions taken, especially during critical times in the past.

The Directorate General of Civil Aviation in BRHIA, in general, doesn't try to avoid the crisis (concept of the *Prevention is better than* cure), but at most of the cases, works on quickly solving the crisis before it gets worst.

8. **Implications for further study**

In future, this article shows that management problem in the General Directorate of Civil Aviation of BRHIA depends on the:

- Examination of the surrounding environment to identify general trends that may affect it in the near future.

- Collection and evaluation of data on potentially questionable problems.

- Development of a communication strategy and the concentration of efforts on the prevention or reorientation of any crisis.

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