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## The Impact of Managerial Aspects on Crisis Management

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## The Impact of Managerial Aspects on Crisis Management

### المستخلص

هدفت هذه الدراسة إلى تحديد أثر الجوانب الإدارية على إدارة الأزمات وكيف يمكن لهذه الجوانب أن تساعد جامعة سرت على إدارة وتقليل اثر الأزمات.، ولتحقيق هذا الهدف تم تصميم استبانة وزعت على رؤساء اقسام وعمداء كليات جامعة سرت الموجودين بمنطقة الجفرة. وبعد إجراء التحليل الإحصائي اللازم تبين ان الجوانب الادارية المتمثلة في التخطيط الاستراتيجي، والبنية التنظيمية، والسلوك التنظيمي، والثقافة التنظيمية والاستثمار في التكنولوجي المتقدمة تأثر بشكل كبير في ادارة الازمات. وبناء على ذلك، اوصت الدراسة متخذي القرار في جامعة سرت بإيلاء اهتمام كبير لهذه الجوانب الإدارية، حيث يُطلب من المديرين بذل الجهد لبناء جوانب إدارية بشكل يخدم إدارة الأزمات ويساعدها في تقليل الاثار السلبية علي المنظمة. بمعنى ان إدارة الأزمات تصبح أداة فعالة للمنظمات، بمجرد أن تعمل جميع الجوانب الإدارية وتعديل حسب متطلبات إدارة الأزمات

**الكلمات الدالة:** إدارة الأزمات، التخطيط الاستراتيجي، الهيكل التنظيمي، السلوك التنظيمي، الثقافة التنظيمية، والتكنولوجيا المتقدمة

## 1. Introduction

A crisis becomes a very visible turning point in the life of an organization. The manner in which the crisis is handled can make or break a business. A crisis is any situation or series of events that launch a group, team or an organization into a downward spiral, by threatening to harm people or property and negatively impact and damage an organization, its stakeholders, or even an entire industry if not handled effectively and efficiently, characterized by “high consequence, low probability, ambiguity, and decision making time pressure,” (Dulek, J. H, & Hale, D, 2005 and Coombs, 2011).

Every organization may encounter a problem that can turn into a crisis. Unfortunately, many organizations do not perceive the need to plan for a crisis. The best-prepared managers will survive and may even prosper during a crisis. Managers must change their thinking about crises. Having a crisis management plan in place that involves every function and every employee of the organization will pay major dividends when the inevitable crisis hits. While all crises cannot be prevented, they can certainly be better managed (Spillan J. E., 2010). However, no organization, regardless of its size or strength is immune from a crisis that can strike unexpectedly, and that can have profound negative effects on its operations, can imperil future growth, profitability, and even the company’s survival. Managers must recognize the necessity to develop overall managerial aspect of their organisation to handle any threat and challenge that will inevitably arise, and make it a priority to be ready to handle such a crisis, through careful and meticulous preparation.

The effectiveness of management in times of the crisis depends largely on organizational competences of managers. Given the escalation of the crisis, crisis management has become an important skill of managers and the crisis is a test of leadership skills. The key competence in this situation is the ability to adapt to change. Because of all the organizations suffer from the impact of the crisis, the attention to proper managerial aspects should be considered as a way to respond to crises and adapt to sudden changes and unpredictable advance. So the managerial aspects to face the crisis mean that organizations should use it as a method to discover future opportunities and avoid risks and crises at all levels of the organization. Thus, the subject of strategic planning is regarded as one of very important topics. This is because it has organized effort to reach basic decisions and activities and then focused on the future of the organization. The subject of strategic planning is also considered as a management tool to help the organization to do its job better in all the circumstances in which they are exposed. However, the performance evaluation of the organization after the implementation of the strategic plan is the best way to respond to the conditions of dynamic environment.

Consequently, a descriptive survey research based on the perceptions of middle and senior managers in five colleges of Sirte University located in Aljoufra, Libya was undertaken. A structured self-completed research questionnaire was thereafter distributed and collected after one week. Overall, 30 responses have been collected from colleges of Sirte University. The collected data have been analyzed through Multiple Regression Analysis. Based on the findings, strategic plan, organizational structure, organizational behaviour, organizational culture, and advanced technologies are found having significant impact on the management of crisis. The paper begins with a review of the related literature in order to achieve better understanding of crisis management and also managerial aspects (Strategic Planning, Organizational Structure, Organizational Behaviour, Organizational Culture, and Advanced Technology) have been investigated and their relationship with the crisis management was identified. The methods to achieve the stated objectives are subsequently described in detail. Then the results of analysis of the relationship between the managerial aspects and the crisis management are presented. The conclusion on how to improve the management of crisis is also shown.

**Research's Problem:**

In response to the call mentioned in several previous studies that emphasized the importance of investigating crisis management and its relationship with managerial aspects (Abdalkhaim, A., 2014, and Almotoloub, M. M., and Fouad, A. B., 2015). Therefore, this research aims to identify the key managerial aspects that influence the implementation of crises management. However, the research problem is summarized by answering the following question:

- What are the managerial aspects that must be taken into consideration when applying management of crises?

**Research Importance:**

Understanding of internal and external threats that may have impact on the organization and ensuring that these threats are managed can mean the difference between success and failure for a business, and therefore should be one of the first priorities of an organization's leadership. Crisis management allows for renewal, stability, and growth after crisis situations, reduces earnings fluctuations, increases stakeholder confidence, protects the organization's assets and helps it meet insurance, legal and regulatory requirements, and avoids serious harm to stakeholders, losses for an organization, or end its very existence. Thus, the importance of this research can be seen when determine the key managerial aspects that play vital role in supporting adoption of management of crises.

**Research Objectives:**

The main objective of this study is to examine the impact of managerial aspects on the management of crises. It specifically sought to determine the impact of strategic planning,

organizational structure, organizational behaviour, organizational culture, and advanced technologies on the management of crises at Sirte University in Libya. The main objective was translated into several objectives:

- To understand and gain knowledge about the concept of management of crises
- To identify the role of strategic planning when adopting the crises management
- To specify the role of organisational structure when adopt crises management
- To state the role of organisational behaviour when adopt the crises management
- To identify the role of organisational culture when adopt crises management
- To clarify the role of advanced technologies when adopt crises management

#### **Research Questions:**

Following are the research questions that used to guide this study:

- What is the impact of strategic planning on the management of crises?
- What is the impact of organizational structure on the management of the crisis?
- What is the impact of organizational behaviour on the crisis management?
- What is the impact of organizational culture on the management of the crisis?
- What is the impact of advanced technologies on the management of the crisis?

#### **Research Hypotheses:**

Based on the framework of this research, authors derived at several hypotheses, which are stated in positive form.

#### **Main Hypotheses**

H1: There is statistically significant impact of managerial aspects (strategic planning, organizational structure, organizational behaviour, organizational culture and advanced technologies) on the management of crises.

#### **Sub-Hypotheses:**

According to the independent variables indicated on conceptual model:

**H1: Hypothesis 1:** there is statistically significant impact of strategic planning on the management of crises.

**H1: Hypothesis 2:** there is statistically significant impact of organisational structure on the management of crises.

**H1: Hypothesis 3:** there is statistically significant impact of organisational behaviour on the management of crises.

**H1: Hypothesis 4:** there is statistically significant impact of organisational culture on the management of crises.

**H1: Hypothesis 5:** there is statistically significant impact of advanced technologies on the management of crises.

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**Research Scope:**

The scope of this research extended to middle and senior managers in colleges of Sirte University based in Aljoufra, Libya.

**Research Methodology:**

This research has used a descriptive analytical method that describes the variables of the study. The variables of the study consist mainly of the managerial aspects and the management of crises. These key variables were then analyzed and followed with the results of the study.

**2. Literature Review**

Because we are living in an-era of crises (Lerbinger, 1997), understanding and dealing with crises is becoming today, for both business practitioners and researchers, a real challenge. Crisis management is a recent field of research and practice and is nowadays a continuously growing field of research. While at the beginning, the weakness was the lack of theoretical development, it's today noteworthy, with the proliferation of research in this field that many developed ideas and theories remain purely theoretical and there is then a lack of empirical evidence of some theories. In the following sub-sections, we tried to define and classify crisis, then we discussed the impact of managerial aspects on the management of crisis.

**Crises Management:**

The sudden changes that occur to internal or external environment of the organization without the availability of opportunities to be avoided are a crisis. Most likely effective Dealing in the management of crises is the only way out of the crisis or avoiding most of its negative effects on the organization. Otherwise, the organization would be transition from a bad to worst situation.

**The Concept of Crisis Management:**

An individual, group, organization, society, State or States may recognize to sensitive, critical and sometimes painful positions. Besides, sensitivity and embarrassment can be increased whenever these positions are ignored and neglected so that such matter sometimes reaches to the loss of work, or even the loss of life. Treatment of the positions at different levels means that there is a crisis that must be processed. However, the best way for treatment is to manage the crisis through a methodology to deal with the crisis of the planning, implementation, monitoring and feedback in light of preparations, knowledge and awareness, perception and available possibilities, skills and patterns that are prevailing in management science. Abu cranium defined it as the preparations and administrative efforts that are being made to address the destruction caused by the crisis (Mohamed, M, & Daniel D W, 2013).

**Objectives of the Management of Crises:**

The crisis is a critical and decisive period that relates to the administrative body, which has suffered of such crisis. However, the most important goals of the crisis management are:

- Hardly work to prevent the crises through removing the causes.
- Designing effective regulatory style to meet the crisis whenever occur and reduce its raised effects.
- To help in the coordination and handling of a crisis
- To ensure that an abnormal or catastrophic situation does not get out of hand
- To minimize the crisis by handling the situation using limited resources
- To allocate and manage resources in an effective manner
- To identify, create, and execute missions in order to manage the crisis
- To archive the crisis information to allow future analysis (Jorg K., et al., 2010)

#### **Scope of the crisis management:**

Scope of the crisis management should include the following functionalities:

- initiating a crisis based on an external input from a witness
- processing a crisis by executing the missions defined by a super observer and then assigning internal and/or external resources
- wrapping-up and archiving crisis
- authenticating users
- handling communication between coordinator/system and resources (Jorg K., et al., 2010)

#### **Types and Levels of Crisis**

##### **First Level: Limited Crisis:**

A limited crisis is any incident, potential or actual, which will not seriously affect the overall functional capacity of the university, but nevertheless requires some degree of action. In some cases, a limited crisis may be small enough that the affected department can effectively resolve the issue. In other cases, assistance from the university Police and/or off-campus emergency response groups may be required according to the standard operating procedures of the university Police. While some damage and/or interruption may occur, the conditions are localized and the university activation is not needed. Examples of Limited Crises in the context of this plan may include, but are not limited to the following: localized chemical spill, plumbing failure or water leak (Rudd D. M., 2015)

##### **Second Level: Issue-Driven Crisis:**

This level includes issue driven and/or slowly developing situations that negatively impact The University. The incident may be severe and cause damage and/or interruption to University operations. A partial or full activation of the University is needed. The university may be the only affected entity. Examples of issue driven crises may include, but are not limited to the following: unscheduled or planned protests or disruptions; civil disturbances; unauthorized

occupancy of campus areas; sexual assaults; controversial speakers; and hate crimes (Rudd D. M., 2015).

### **Third Level: Major Crisis:**

A major crisis is an incident posing major risk to university personnel, students, visitors, or resources that has caused or has the potential for causing fatalities or injuries and/or major damage. Such an incident is equivalent to a campus-wide 'state of emergency,' and is expected to require activation of a university and Crisis Management Team (CMT) in order to provide an immediate emergency response. A university may request assistance from the State authorities, other State agencies or request assistance via the County Emergency Operations Center. A Level 3 crisis may develop from incidents beginning at the Level 1 or 2 stages.

Examples of major crises may include one or a combination of the following perils: active shooter, infectious disease, fire, explosion, severe weather conditions, earthquake, building collapse, flood, wind, chemical release, radioactive contamination, major civil disturbance, bomb threat, aircraft emergency, barricade or hostage situation, or other acts of terrorism. (Rudd D. M., 2015)

### **Managerial Aspects**

Disasters or emergencies can happen suddenly, creating a situation in which normal operational and support services for a University may become overwhelmed. During crises, a University requires processes that address the needs of emergency response operations and recovery management. To address such emergencies, a university has to establish emergency response procedures, that provide guidelines for the management of the immediate actions and operations required to respond to an emergency or disaster. The overall priorities of the University during a disaster are the protection of lives, valuable research, property, the community, and the environment. The overall objective is to respond to emergency conditions and manage the process of restoring University academic and research programs and services (Rudd D. M., 2015).

A crisis becomes a very visible turning point in the life of an organization. The manner in which the crisis is handled can make or break a business. The managerial issues that confront an organization before, during, and after a crisis all pose major challenges for the managers. How they analyze and respond to these issues may determine the outcome of the crisis. Having a well thought out crisis management plan with trained staff that knows how to implement it will be one major step towards bringing crisis situations to a successful conclusion. Every organization may encounter a problem that can turn into a crisis. Unfortunately, many organizations do not perceive the need to plan for a crisis. The best-prepared managers will survive and may even prosper during a crisis. Managers must change their thinking about crises. Having a crisis

management plan in place that involves every function and every employee of the organization will pay major dividends when the inevitable crisis hits. While all crises cannot be prevented, they can certainly be better managed (Spillan J. E., 2010). No organization, regardless of its size or strength is immune from a crisis that can strike unexpectedly, and that can have profound negative effects on its operations, can imperil future growth, profitability, and even the company's survival. Managers must recognize the necessity to develop overall managerial aspect of their organisation to handle any threat and challenge that will inevitably arise, and make it a priority to be ready to handle such a crisis, through careful and meticulous preparation.

As far as organizations are concerned, preventing and managing risks may only be done in case the crisis management is based on a coherent communication strategy in crisis situations. Strategic Planning is a continuous process and a system that carried out by the leaders of the organization in order to take decisions regarding the future of their organization. It is also a system to determine the actions, programs and policies needed to achieve the future promises and the method that can measure the level of success (Federation Report, February, 1997). Strategic planning is ongoing decision-making process that is based on possible information and its future effects of these decisions. It is also organizing efforts to implement these decisions and then measuring the results in the light of expectations through the availability of feedback system of the information.

The effectiveness of management in times of the crisis depends largely on organizational competences of managers. Given the escalation of the crisis, crisis management has become an important skill of managers and the crisis is a test of leadership skills. The key competence in this situation is the ability to adapt to change. The ability of an organization to respond quickly in a crisis, as a function of its culture, configuration, and communication strategies, is critical. Organizing the management structure so that it can respond to a crisis is not an easy task. The structural flexibility of an organization provides opportunities to fashion crisis management planning strategies that are in its best interest. It involves identifying the possible vulnerabilities and developing appropriate management structures that can quickly address the impending or existing crisis. Establishing a planning and communication structure that gives managers a blueprint and the tools to deal with potential crises is essential. This requires allocating the proper resources, such as people, materials, money, and logistical support, to meet the potential needs of a crisis (Spillan J. E., 2010).

Organizations that become paralyzed due to a crisis face serious management problems. Managers must develop viable business strategies to prevent, manage, or turn a crisis into an opportunity. The business of an organization is continuity in its operations and therefore,

managers must establish continuity planning as part of their normal management process. During many crisis situations many activities, such as bill paying, resources acquisition and day-to-day business operations, must continue in order to sustain the survival of the business. This is just one component of crisis management, which itself is part of the organization's strategic management process (Spillan J. E., 2010).

(Rudd, D. M., 2015) has designed a plan that provides the management structure, key responsibilities, emergency assignments, and general procedures to follow during and immediately after an emergency. (Rudd, D. M., 2015) has established this plan to address the immediate requirements for a major disaster or emergency in which normal operations are interrupted. (Rudd, D. M., 2015) emphasized the need to provide an organizational structure capable of responding to various levels of emergencies ranging in complexity. The flexibility also needed to respond to an incident as it escalates in severity. However, Participation of managers is very important along the line of authority in the strategic planning process. This participation has great importance in the success of the implementation of the plan. So this requires from managers to undertake education and training sessions. Whereas research studies show that the more awareness of managers and understanding of the strategic planning process, the more positive responses managers make to participate in the process of strategic planning and to succeed the implementation of strategic plans that are required when put into practice.

Barriers in organizational behavior can also affect the management of crisis of which strategic planning is the responsibility of a specialized body in planning and not the responsibility of management at all levels, Availability of a system of incentives focused on short-term results, Availability of new systems in the planning process without the participation of individuals in these systems, and their effects on the motivations and behavior of individuals, and their effects on the cultural environment of the organization in general, Lack of an information system that provides managers with information about the surrounding environment, Discourage innovative thinking because off controlling the style of bureaucratic system and leadership of bureaucracy among the parts of the organization.

Substantial numbers of previous studies have indicated to the role of advanced Technologies. Adopt advanced technologies are inevitable to manage crisis. To achieve competitive advantage in the organization through the third millennium depends on the use of modern technology to stay in the business world. Due to technology these days changes rapidly in all industries, it is necessary to keep up with these changes on an ongoing basis through strategic planning, which characterizes by flexibility.

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### **Management Practices in Libyan organisations**

Review of previous studies showed that organisations in Libya went through several changes in the last twenty five years in terms of their dependency. Sometimes they follow the Ministry of Industry, Economy and Trade, in the next year they follow the Ministry of Service and so on. Such frequent changes of the ownership were the cause for the changes in the organisation structure. The presence of a hierarchical traditional structure makes the management follow the organisational structure (Mostafa A.S, and Omran A.A., 2015). It was emphasized that hierarchal management in Libyan organisations is centralized, which is very difficult if not impossible for employees participation in relation to share and be part of solving problems and share ideas. first-line managers traditionally has been as the authority within a particular department on site (e.g. operation team, work supervisor), they are responsible for telling the workforce what to do, and they are very confused and afraid of consequences of any decision made. This means that the organisation sets unreasonable objectives and lack of understanding of each other's perspectives.

Another issue is the cultural barriers that are being very important in the implementation of modern management techniques and programs. (Mostata, et al 2015) emphasized that biggest difficulty faces Libyan organisations is how to change culture to support implementation of new systems and programs. Accordingly, employees in Libyan organisations express their behaviour dissatisfaction by delaying or neglecting in doing things, or in other words discussing things that are usually out of work scope and waste a lot of time and money. Libyan managers confirm the effect of laws and restrictions result in unwillingness from the leaders to take responsibilities. It is understood that managers believe that the company's culture helps in providing the basis to form and modify behaviors, attitudes and values deem very important to the power structure of the company and the problem how to deal with.

Another barrier is that strategic vision of Libyan organisations is the best way to continue success. Unfortunately, studies indicate that some of Libyan organisations have lack of strategic planning, integrated job functions as a team work, and employees training that inhibited empowerment of employees (Khaled, A.M, 2013).

Moreover, coordination between departments within companies was carried out through formal letters in which they complained it takes time and power to achieve small tasks. Libyan managers also indicated that there is lack of financial support from the government. Managers believe that open communications about financial presentation in Libyan companies with motivation are the factors to help conducting the work.

Another barrier is a decision making process. Libyan managers are unlikely to find it easy to delegate authority, to be flexible in executing decision or to respond well to criticisms. Studies

also indicated that employees are not willing to be involved in taking decisions in their job as a fear from legal accountability from their departments. The top management, who is responsible for any problems, is accountable to these controller departments. Hence, they found it difficult to empower the employees in decision making. Managers had indicated that the Libyan authorities think that the number of controller departments can control and avoid any kind of fraud such as financial and managerial cheating. In addition, there is a lack of working in teams and an absence of active and experienced leaderships within Libyan organisations (Khaled, A.M, 2013).

Another critical issue is that imposed policies and procedures resulted to overstaff in the organisation of an unskilled Libyan workforce. The Libyan government departments, which controls public sector organisations and companies, imposed some policies and procedures on the companies by appointing to hire or recruiting by force some Libyan people, either skilled or not skilled, to be employed in those companies.

Joma, M., (2013) found that most of the problems currently facing management practice in Libyan organisations are related to randomness in application. There are clear contradictions between the actual practices and the written rules, regulations, and laws. Behaviour, mood, and benefits affect practice more than policy and plans can. There is consensus that no changes in the management system, high level of bureaucracy, high level of centralization in decision making, lack of managerial efficiency, lack of management and financial supports, and corruption from different directions and levels of management were the main causes of the delay encountered in the Libyan organisations in the adoption of modern techniques and programs. Obviously, the management in manufacturing companies was poor in the exchange of ideas and information with employees as an effective leadership tool to implement the systems successfully. Thus, there is a lack of employee involvement, empowerment, no continuity in training programs and no concentration of training programs on how the people in the company can maintain the system. Obviously, top management experiences a lack of commitment and lack of leadership, where they should focus on high-commitment broad principles.

### **Management Practices in Libyan Universities**

In fact, higher education institutions in Libya has increased and is distributed more evenly throughout the country, and the number of students enrolling in higher education has increased significantly in recent years, both of which are positive indicators in educational development. Unfortunately, higher education in Libya faces many problems that hamper its ability to catch up with and meet modern demands, and fails to meet the society`s needs. Accordingly, Libya has realized that the most important way to accomplish the goals intended for universities is by

evaluating its reality, so as to investigate its related strengths and weaknesses. However, the criteria of quality and efficiency of performance of Libyan higher education is extremely low and weak (Bin Saeed, 2007), accordingly a lot of weaknesses which are considered as obstacles and barriers are still existing and threaten to prevent this sector from accomplishing its mission and function. Several barriers that face Libyan universities can be outlined as the following:

The large increase in the number of students, where the current proportion of 37% of the population consists of students in various stages of education due to the high rate of population growth which reached 4% per year in 1996 (El-Hawat 1996); this increase has not been offset by a tangible increase in human and material resources. There is also a limitation of capacity of some Libyan higher education institutions to accommodate the increased numbers of students, as can be seen in the overcrowding of students in classrooms, laboratories, and universities' corridors.

There is a lack of integration and harmonization between educational and economic planning, especially in terms of the correlation between the curricula and the labour market (El-Zubidi 2000). The teaching strategies adopted by higher education institutions in Libya are still restricted to traditional teaching methods such as the traditional lecture, where often the method of dialogue and discussion are not used (El-Zubidi 2000). There is lack of scientific coordination and cooperation among Libyan universities on the one hand, and between them and the international universities on the other hand. Lack of availability of modern sources of information in Libyan universities and limitations on the books which are available at libraries, due to lack of introducing and use of information technology in the field of higher education, which makes it difficult to trace and keep abreast of the latest educational developments in this field. Weaknesses of development of inputs to the educational process, due to their not being based on evaluative field studies which could reveal the strengths and weaknesses to be taken into account in planning education programs, especially the educational inputs.

In fact, there is much to say about the education system in Libya in the last two decades, but in brief it must simply be said that the education system needs to be reviewed and re-oriented. Lack of a mature and integrated policy, as well as instability and fluctuations in orientation and decisions, random distribution of education centers, illogical increases in the number of institutes, and the low caliber of teachers and instructors especially at the elementary and secondary levels, are among the factors of concern. This situation poses challenges for the educational system in Libya, despite the work done to develop education, and this is a major factor affecting the present status of Management Training and Development (MTD) programmers (Joma, M., 2013). Generally speaking, the situation is similar to that elsewhere in the Arab world. Many Arab researchers have criticized regional education systems. For just a

single example, Al-Rashead (1994) criticized what he identified as a traditional education system and non-innovative management scholarship. In order to evaluate the importance of certain forms of training, the respondents were asked to rate the overall importance of the form/method of training in their learning.

Overall, Joma, M., (2013) emphasized that the current need for organized and effective Management Training and Development (MTD) is urgent, but that successful implementation will require careful attention to a multitude of factors, including political, social, and cultural, in addition to the usual business/strategic factors. This will require study at all levels of organizations, and a willingness to embrace new innovations and ideas to improve management practice in the Libyan context, and to induce and lead to optimal performance from the workers who would be the backbone of any such effort, and whose talents and efforts are currently being wasted in inefficient ways (Joma, M., 2013).

### Conceptual Model of This Research

First a conceptual model was derived from literature. The model is shown in Fig. 1. In this study, the initial model was considered as the independent variable based on the dimensions of managerial aspects (including Strategic Planning, Organisational Structure, Organisational Behaviour, Organisational Culture, and Advanced Technology) and Crisis Management as dependent variable.

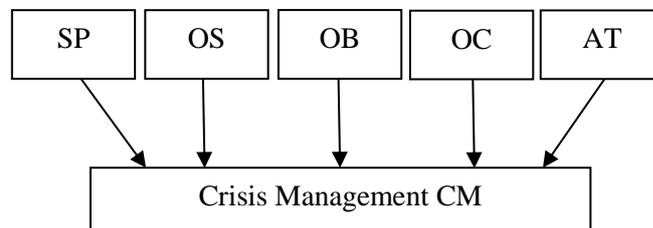


Figure 1: Conceptual Framework

### Research Methodology

Methodology is an organized collection of procedures, techniques and tools which has been developed for addressing the life cycle of one project to lead to its objective and decrease the problems and difficulties (Valiris & Glykas, 1999); and (Al-Mashari & Zairi, 2000). Questionnaire is considered to be one of the most appropriate data collection instrument for survey research (Askia, 1999). As a result, the questionnaire consists of three sections was designed. First section was concerned with demographic data that discusses age, sex, qualification, experience period, college, and respondent position. Section two represents managerial aspects (including Strategic Planning, Organisational Structure, Organisational Behaviour, Organisational Culture, and Advanced Technologies) that contain 25 statements

requesting the respondent to assess their managerial aspects within their organisation. In third section, eight statements represent the management of crises and discuss the personal and organization background of the management of crises.

All responses pertaining to both dependent and independent variables are measured on five-point Likert scale. Five-point rating scale indicates that participator bias tends to decrease and data quality tends to increase. The midpoint on the scale gives respondent independence and chance of expressing their views (Krosnick & Fabrigar, 1997). Many literatures found that scale between 5 to 7 points were more reliable and valid than shorter or longer scales (Krosnick & Fabrigar, 1997). However, (Dawis, 1987 & Garland, 1991) suggested that the decision lays largely on the preference of the researcher and there can be no single best method in scale construction, one may be better for one research problem but not be good for another.

### **Respondents**

The statistical population of the present research consists of the Deans and Heads of Department and Heads of Office of Colleges allocated in Aljoufra Region. Since all the population has been available in this study, all members have been asked to answer the questions. In this case, since all members have the same chance for being sampled, and also as the population and the sample are of the same size, thus the results obtained from the questionnaires are quite reliable and valid. Hence, the total of target population for this research was 30 executives that derived from Law College, Business College, Science College, Education College and College of Medical Technology. Out of 30 questionnaires, 25 were collected from these colleges. As a group, all executives were young to middle-aged (approx. 30–50 years). A majority were bilingual / multilingual, with English as a second language. They are all allocated in Aljoufra Region. Their sex was mixed between male and female. As a group, they managed about 80 staff with over 2.500 students at the colleges allocated in Aljoufra Region. All respondents were native Libyans.

### **Procedure**

The researchers first approached executives by letter asking for cooperation in the research. The researchers visited colleges and were able to recruit respondents. Prior to the distribution of the questionnaire, the draft copies were initially submitted to experts both academics and professionals for content validity. The pilot test process was also completed within the period of four weeks. (Sekaran & Bougie 2010) argued that the most popular test of item consistency reliability is Cronbach's alpha coefficient. Hence, Cronbach's alpha test was employed in this study to measure internal consistency reliability of the instrument. Thereafter, the researchers who visited the colleges distributed the questionnaire by hand. All distribution took place within the colleges sites. The researchers met the respondents in their offices, gave them the

questionnaire, and explained it to them. This method helped ensure a good response rate. It also helped ensure that all relations between the researchers and executives were cordial. For the most part, respondents completed the questionnaire after the researcher had met the executives. In a few instances, executives completed the questionnaire in front of the researchers. The questionnaires were returned to the researchers either by hand or by mail after about one week. They were subsequently scored by the researchers.

## Results

Of the 30 executives, 25 returned the questionnaires and 5 did not-a response rate was 83 %. Of the 25 returned questionnaires, 4 were unusable (illegible or incomplete). This yielded an overall usable response rate of 70 % (N = 21). This response rate is considered adequate according to (Sekaran, 2006) that 30% response rate for survey is acceptable. Also, 61% response rate considered sufficiently large for statistical reliability and generalizability (Tabachnick & Fidell, 2007). The data collected was analyzed using SPSS version 14 for windows. Basically, regression analysis was carried out to determine the relationship between the managerial aspects and the management of crises.

## Reliability & Validity of Instrument

### Validity in this study

Content validity is used to investigate the validity of research instrument. For this purpose, 5 questionnaires of different formats were sent to experts both academics and professionals of this field. Then, required modifications were made to the questionnaire based on their comments.

### Reliability:

The internal consistency is usually calculated using an alpha coefficient, which measures the interrelationship between items in the questionnaire (Cortina, 1993). (Nunally, 1978) argued that a reliability of 0.70 or higher is acceptable. The Cronbach alphas all ranked higher than 0.70. This analysis indicates that the scales used in the study are reliable. The results for calculating the reliability index of the questionnaire is illustrated in Table 1.

**Table 1: Cronbach Alphas (CA)**

Variables	Cronbach's Alpha	CA Standardized Items	N of Items
Strategic Planning	.722	.740	6
Organizational Structure	.520	.700	5
Organizational Behaviour	.920	.920	5
Organizational Culture	.932	.927	6
Advanced Technology Implementation	.883	.895	3
Crisis Management	.902	.902	8

As it can be observed, all indices are acceptable ( $> 0.70$ ) and this indicates the reliability of the questionnaire.

### Research Results

This section describes the analysis tests, discusses the results of the correlation and regression analysis of the five independent variables (Strategic Planning, Organisational Structure, Organisational Behaviour, Organisational Culture, Advanced Technology), and then presents the results, in accordance to the research objectives and hypotheses of the study.

### Hypothesis Test

The results obtained from the regression model were analyzed and revealed the signs and magnitude of the coefficient of the variables in the model. In other words, managerial aspects were tested against the management of crisis.

### First Hypothesis

First hypothesis argues that there is statistically significant impact of strategic planning on the crisis management. In this study, regression analysis was used to discuss first hypothesis, with the strategic planning as the independent variable and the crisis management as the dependent variable, and results were shown in Table 2.

**Table 2 Model Summary of Strategic Planning and Crisis Management**

Model	R	R Square	F Change	Sig
1	.889 <sup>a</sup>	.790	11.295	.000

Predictors: (Constant), strategic planning and the Dependent Variable is the crisis management  
The effect of the strategic planning was examined on the crisis management. However, figures in Table 2 reveals that the significance level for the strategic planning was stated as ( $F = 11.295$ ,  $p < 0.000$ ). This is an indication that the strategic planning has strong relationship ( $R = 0.889$ ) with the crisis management that means that strategic planning has significant effect on the management of crises.

The above analysis results showed that the strategic planning would heavily influence the management of crises. That is to say, the failure to manage the crises and failure to predicate risks that face organisation is resulted from underestimation of strategic planning. Therefore, concept of strategic planning should be well known for organisation's leaders, an organisation should have clear vision of strategic planning, employees should fully understand the organisation's vision and subject to it, and employees also should participate in planning processes. In another word, during the preparation of strategic plan, decision makers should discuss the requirements of crisis management and put down all means that crisis management may require to manage any future crisis. Such policies would no doubt increase level of success

in the management of crises. Consequently it is advised to use strategic planning as a weapon to avoid any threats and crises that organisations may face in the future. Therefore, First Hypothesis is accepted in this study.

### Second Hypothesis

Second hypothesis claims that there is statistically significant impact of organizational structure on the implementation of crisis.

In this study, regression analysis was used to discuss second hypothesis, with the organizational structure as the independent variable and the crisis management as the dependent variable, and results were shown in Table 3.

**Table 3 Model Summary of Organisational Structure and Crisis Management**

Model	R	R Square	F Change	Sig
1	.730 <sup>a</sup>	.533	3.426	.029

Predictors: (Constant), organizational structure and the Dependent Variable is the crisis management

As it can be observed in table 3, the independent variable, which represents organizational structure is found to be in great correlation with the dependent variable that represents the crisis management where  $R = 0.730$ . In addition, level of p-value (Sig) of the organisational structure is revealed as 0.029. This suggests that the success of crisis management is greatly depending on organizational structure.

The organizational structure has a significant positive effect on the crisis management, that is, flexible organizational structure will help managers to well manage and face crisis that many accrue. Accordingly it can be seen how important this aspect is to coup with sudden and unpredictable threat and crises within an organisation.

it is obvious that the management of crises would be an efficient if a decision making process is uncentralized, research and development process is considered as key approach within organisation, responsibilities and leadership lines are obvious and limited, distance between units belong to organisation does not prevent work, and organisational structure model is flexible and suitable with organisation's objectives. Therefore, second hypothesis is accepted and got strong support in this study.

### Third Hypothesis

Third hypothesis argues that there is statistically significant impact of organizational behaviour on the crisis management.

In this study, linear regression analysis was conducted to examine the extent to which the independent variable (organizational behaviour) influences the crisis management (dependent variable). The independent variable was regressed across all activities of the crisis management. Table 4 summarizes the results of the linear regression analysis.

**Table 4 Model Summary of Organisational Behaviour and Crisis Management**

Model	R	R Square	F Change	Sig
1	.750 <sup>a</sup>	.562	3.853	.019

Predictors: (Constant), Organizational Behaviour & the Dependent Variable is the Crisis Management

After regression analysis was run, the correlation between the independent and dependent variables was investigated and found strongly correlated at ( $R = 0.750$ ). The figures in table 4 also provide that the significant level for the organizational behaviour is 0.019. As a result, the organizational behaviour has significantly positive influence on the management of crisis.

The regression analysis results revealed that an organization will get a substantial success in the crisis management if the organizational behaviour is appropriately considered. This suggests that it will be helpful for the crisis management if people within an enterprise adopt self-control on themselves to do tasks, communication among people within organisation are simple and fast, people are willing to take lessons of their mistakes, and people always require reports and documents to take adequate decisions. Accordingly, an organisation will come under the influence of the organizational behaviour, which will directly affect the management of crisis. Therefore, third hypothesis is accepted and got support in this study.

#### **Fourth Hypothesis**

Fourth hypothesis argues that there is statistically significant impact of organizational culture on the crisis management.

In this study, linear regression analysis was conducted to examine the extent to which the independent variable (organizational culture) influences all activities of crisis management (dependent variable). Table 5 summarizes the results of the linear regression analysis.

**Table 5 Model Summary of Organisational Culture and Crisis Management**

Model	R	R Square	F Change	Sig
1	.782 <sup>a</sup>	.612	3.678	.021

Predictors: (Constant), organizational culture and the Dependent Variable is the crisis management

A regression analysis was conducted. As shown in table 5, the relationship between the independent and dependent variables was investigated and found positively strong relationship at 0.782. The figures in table 5 also provide that the significant level for the organizational culture is 0.021. As a result, the organizational culture has significantly positive influence on the management of crises.

Consequently, an organization will attain a substantial success in the management of crises if the organisational culture is appropriately utilized. This suggests that the organizational culture should be useful for the management of crises if an organisation encourages initiation attitude among employees, an organisation supports effective relationship and cooperation with other organisations, communication between employees is simple and fast and use open method for information exchange, and work team strategy is adopted by organisation to conduct tasks. It is also that leaders should help subordinates to obtain the necessary information and ensure contact with the external environment. Therefore, fourth hypothesis is accepted and got support in this study.

#### **Fifth Hypothesis**

Fifth hypothesis argues that there is statistically significant impact of advanced technology on the management of crises.

In this study, linear regression analysis was conducted to examine the extent to which the independent variable (advanced technology) influences crisis management (dependent variable). Table 6 summarizes the results of the linear regression analysis.

**Table 6 Model Summary of Advanced Technology and Crisis Management**

<b>Model</b>	<b>R</b>	<b>R Square</b>	<b>F Change</b>	<b>Sig</b>
<b>1</b>	<b>.912<sup>a</sup></b>	<b>.831</b>	<b>27.891</b>	<b>.000</b>

Predictors: (Constant), Advanced Technology and the Dependent Variable is Crises Management

Base on figures in table 6, the correlation (R) between the independent and dependent variables was investigated and found that the value of R equal to 0.912. The figures in table 6 also indicate that the significant level is 0.000. As a result, the implementation of advanced technology has significantly positive influence on the management of crises.

The regression analysis results revealed that an organization will successfully manage and prevent threat and crises if an organisation encourages adoption of advanced information technologies, advanced information technologies are used to gather, organise, analyse, and store

information. This is usual done in fast and accurate way so that help senior managers to early predict threat and crises. As a result, advanced information technologies contribute to coup with crises and release their negative influence. Therefore, fifth hypothesis is accepted and got support in this study.

### **Discussion**

Leaders have failed to manage crises and avoid risks because some did not apply the concept of crisis management at all and others have mismanagement of crises (Lesenciuc, A., and Daniela, N., 2014, Andrianopoulos, A., 2015, Abd-AlMotaloub, M. M., and Fouad, A. B., 2015). However, it is known that management means planning, implementation, follow-up and feedback in light of the environmental changes. Thus, it is noted that there have been judgments in the management of the crisis and ignorance to the application of management functions. This means that if there is underestimation of managerial aspects, organisations probably fail to prevent the future or existence of the crisis. The management of crises requires adequate managerial aspects to be an efficient. However, managerial aspects play vital role to successfully drive the management of crises (Katarzyna, S. W., 2013, Abdalhakaim, A., 2014, and Rudd, D., 2015).

This study mainly discussed the relationship between the managerial aspects (including Strategic Planning, Organisational Structure, Organizational Behaviour, Organizational Culture, and Advanced Technology) and the management of crises. However, it is found that there is statistically significant relationship between the independent variable represented by managerial aspects and dependent variable represented by the management of crises. It is evident that each variable of managerial aspects is considerably contributed to the success of the crises management.

Empirically, figures in Table 2 indicate that senior managers in Sirte University believe that the strategic planning would heavily influence the management of crises. That is to say, the failure to manage the crises and failure to predicate risks that face organisations is resulted from underestimation of strategic planning. Therefore, concept of strategic planning should be well known for organization's leaders, an organisation should have clear vision of strategic planning, employees should fully understand the organization's vision and subject to it, and employees also should participate in planning processes. Such policies would no doubt increase level of success in the management of crises. Consequently it is advised to use strategic planning as a weapon to avoid any threats and crises that organisations may face in the future.

This study also found that the organizational structure has a significantly positive effect on the management of crises, that is, the suitable organizational structure will help managers to well manage and face crisis that many accrue. Accordingly it can be seen how important this aspect

is to cope with sudden and unpredictable risks and crises within an organisation. Therefore, leaders in Sirte University believe that the management of crises would be an efficient if a decision making process is uncentralized, research and development process is considered as key approach within Sirte University (SU), responsibilities and leadership lines must be obvious and limited, distance between colleges and centres belong to SU does not prevent work, and organizational structure model should be flexible and suitable with organization's objectives.

The results have shown in table 4 revealed that an organization will get a substantial success in the crisis management if the organizational behaviour is appropriately considered. This suggests that it will be helpful for the crisis management if people within an enterprise adopt self-control on themselves to do tasks, communication among people within organisation is simple and fast, people are willing to take lessons of their mistakes, and people always require reports and documents to take adequate decisions. Accordingly, an organisation will come under the influence of the organizational behaviour, which will directly affect the management of crisis.

It is also found that an organization will attain a substantial success in the management of crises if the organizational culture is appropriately utilized. This suggests that the organizational culture can be useful for the management of crises if an organisation encourages initiation attitude among employees, an organisation supports effective relationship and cooperation with other organisations, information should be exchanged between employees through open method and as simple and fast as possible, and work team strategy is adopted by organisation to conduct tasks. It is also that leaders should help subordinates to obtain the necessary information and ensure contact with the external environment.

Interestingly the high p-values presented in Table 6 indicate that the Sirte University (SU) will successfully manage and prevent risks and crises if leaders of SU encourage adoption of advanced information technologies. SU Leaders also believe that advanced information technologies should be used to predict future risks and crises. Accordingly, advanced information technologies can be used to cope with crises and release their negative influence.

It can be argued that the nature of the management of crises requires interaction between all management levels and all organizational elements. Thus, organisations that characterized by well strategic Plan, fixable organisational structure, organisational behaviour, organisational culture, and implemented update advanced technologies, would efficiently implement the management of crises and protect their business of threats and risks.

#### **Limitations of study**

Owing to the result of this research, the following are the limitations and implications for future research:

This study is restricted in scope, due to the fact that only four colleges of Sirte University were sampled. It may be helpful to determine if the attitudes and beliefs of the responders to this study are similar to those responding to the same issues in other similar universities in Libya as a whole.

The sample size used in this study is considered to be small, which makes it challenging for the conclusions to be generalized to the whole population of faculty members working in Sirte University. It is recommended that if further studies are carried out on this topic and/or relevant topics, the sample size should be bigger.

In this study the correspondents sampled were all manager levels. It is recommended that in a further study, it will be interesting and beneficial to verify if lectures and employees working at Libyan Universities have similar experiences, perceptions, attitudes and beliefs about the crisis management. Due to the fact that there is little research addressing the effect of crisis management in Libyan organisations, more research in this area is suggested.

The study was based majorly on questionnaires which include collection of closed-ended questions as the main tool for data collection, and then the quantitative data were analyzed statistically. Thus, the disadvantages of using this method of data collection and the statistical techniques used, added to the limitations of this research, though, the technique of using an interviews and/or questionnaire that includes open-ended questions should be used as method when carrying out such research. They are thought to be more insightful than direct questions about experience or hypothetical questions about what a respondent would actually do.

#### **Contributions and implications of study**

Despite the limitations outlined above, I believe that this study contributes to the relevant literature in many ways. Methodologically, this study shows the value of quantitative research as it involves a questionnaire with closed-ended questions in studying why and how managerial aspects may influence implementation of crisis management in particular ways. This study provides detailed insight into a range of aspects which affect the implementation of crisis management.

#### **Academic Contribution**

The findings of this study have important implication for the research as it provides further support to the studies that examine the relationship between managerial aspects and implementation of crisis management.

In fact, most of the previous Libyan studies were dealt with the issue of the crisis management in terms of political and economic issues. Interestingly very few had dealt with the crisis management in terms of managerial aspects in Libyan organizations. It is worth mentioning that the available studies that studied the managerial aspects focused on human resources and the

management of empowerment and their relation to the crisis management (Abdaljalil B., (2008), Walid, B., (2013), Abdalhakaim A., (2014), and Abd-AlMotaloub, M. M., and Fouad, A. B., (2015)). It is obvious that there was ignorance for the role that managerial aspects plays towards the implementation of the crisis management. Therefore, this research intended to examine the impact of these managerial aspects (such as strategic plan, organisational behaviour, organizational structure, Organizational culture, and advanced technology) on the implementation of crisis management

Another contribution is that it will add to academic contribution in investigating the study variables (strategic plan, organisational behaviour, organizational structure, Organizational culture, and advanced technology) in the implementation of crisis management, in addition to helping enhance the Arabic and Libya literature of these topics. This study combines between these variables to figure out their interrelationship. Accordingly, this study could be considered as a recognized Academic contribution.

### **Managerial Contribution**

Several studies investigate the political and economic aspects of crisis management and only few examine the managerial aspects and interestingly no study was found to study the relationship between collection variables such as (strategic plan, organisational behaviour, organizational structure, Organizational culture, and advanced technology) and their impact on the crisis management.

This study is considered particularly of great value, as it provides evidence on the positive relationship between managerial aspects and crisis management based on empirical study on four recognized colleges in Sirte University in Aljoufra region, which will assist in providing implication and insight for universities and higher education institutions as well.

The findings of this research have another importance to the universities that are planning to Implementing crisis management. Implementing crisis management requires a lot of preparation and sometimes restructuring and re-organizing the managerial strategies and policies.

In addition, this study suggests several implications for the crisis management practices in Sirte University. I highlight these implications in the following points:

It is vital for decision makers within Sirte University to understand that the crisis management does not only mean introducing a new set of procedures, but it also implies a change in organisational structure, organisational culture and adopting advanced technologies.

Senior managers in Sirte University need to realise that in order for the crisis management to be implemented effectively, all managers need the skills and knowledge to enable them to cope with the demands of the crisis management.

Managers in Sirte University should be aware of benefits of crisis management. Therefore a training course for all levels should be offered over several weeks duration in which the role of crisis management be cleared.

Colleges should proactively seek modify organisational structure, organisational culture, and introduce advanced technologies to help adopt crisis management

Organisational culture must be reinforced in an integrated and consistent manner to produce sustained results that will support the managers to welcome change and try to implementing it successfully

Crisis management represents a very large domain. Therefore it is necessary to rethink and reform the managerial aspects in order to assure a better understanding and a better training of the employees for implementation of crisis management.

### **Conclusion**

After identifying the effects of the managerial aspects, it is necessary to emphasize how the managerial aspects can help to manage crises. The unique contribution of this study is that managerial aspects account for high variance in the management of crises. The managerial aspects (including Strategic Planning, Organisational Structure, Organisational Behaviour, Organisational Culture, and Advanced Technology) cannot be underestimated since the management of crises requires specific characteristics that foster co-operation, motivation, and team spirit among work groups. The researchers therefore, recommend that Sirte University especially colleges allocate in Aljoufra Region that wish to be more competitive should pay high attention to managerial aspects since they are associated with successful management of crises. Sirte University should be asked to select appropriate characteristics so that they expose to less harmful and are able to cope with losses.

### **Recommendation**

After identifying the effects of the managerial aspects, it is necessary to emphasize how the managerial aspects can help to manage crises. The unique contribution of this study is that managerial aspects account for high variance in the management of crises. The managerial aspects (including Strategic Planning, Organisational Structure, Organisational Behaviour, Organisational Culture, and Advanced Technology) cannot be underestimated since the management of crises requires specific characteristics that foster co-operation, motivation, and team spirit among work groups. Based on the results of this research, the researchers therefore, recommend that managers in Sirte University should maintain the strong relationship found between organisational culture and crisis management through paying sufficient attention to reinforce this relationship. This can be done by increasing the awareness of administrative and

academic staff at Sirte University of the importance of crisis management in order to become part of the organizational culture through seminars and workshops

At the time of developing strategic plans, crisis plan must be clearly developed and also understandable mechanisms should be adopted to avoid any crises, as well as learning and taking lessons from past crises.

It is also recommended that top management should adopt an appropriate organizational structure that contributes to the implementation of crisis management plans. And also facilitates the communication lines during crises between the administrative levels.

Establishment of a special department is recommended to manage crisis and take on the task of dealing with the crisis.

Adopting advanced information technologies that contribute to gather, organize, analysis, and store information quickly and accurately are inevitable. Such technologies help to address any crises that may appear

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