Impact of the Business Continuity Management in Reduction of the Crises Risks at the Greater Amman Municipality

Dr. Majid Abdul-Mahdi Mesaadah

Faculty of Economics and Administrative Sciences / Zarqa University

* This research is funded by the Deanship of Research in Zarqa University /Jordan

ABSTRACT

The study aimed to identify the impact of the business continuity management in reduction of the crises risks at the greater Amman municipality. The study population consisted of all employees in the greater Amman municipality, were chosen as an appropriate sample consisting of (180) employees, and was distributed the study questionnaire on them. The study found a number of results, among them the following:

a. The results showed that the evaluation of employees for the business continuity management dimensions in the greater Amman municipality, and intellectual skills), were in degree (high) for all dimensions.

b. The results indicated that there exist a statistically significant impact at a significant level   (α = 0.05), for three dimensions of the business continuity management, in reduction the crises risks at the greater Amman municipality. The study concluded that a number of conclusions.

Keywords: Business continuity management, Crises risks, Development and implementation, Greater Amman municipality.

1. INTRODUCTION

The business continuity management appeared initially in the field of the information technology and planning to recovery from the crises, and then use spread into different sectors, where the transformation of their scope of the operation based on the information technology in all its business to the process that determines the internal and external risks facing the organization, and offer the solutions in order to the effective prevention and the recovery from the effects of these disasters (Sawalha & et al., 2012).

The business continuity management has evolved since (1970) to assist in responding to the technical and operational risks faced by the institutions and threaten its survival as well as to increase the capacity of those institutions to disaster recovery and business interruption, and in the beginning of this century have evolved dramatically to be replies to do, especially the unexpected dangers or pre-defined, and became meant to preempt catastrophic events that are harmful to the institution, and take steps planned and rehearsed to protect the business in order to preserve the stakeholders' confidence in the ability of the institutions management to deal with the of disasters that occur and thus maintaining on its brand and commercial reputation, as well as on the infrastructure and on the employees (Karim, 2011).

The readiness of any organization depend to address the dangers of whether crises and natural disasters or human-induced on the effectiveness of the administration to adopt a plan for the continuity of their business, in order to maintain an acceptable level of business and protect the resources and preparation of action that will ensure that survival of the institution in times of business disruption. Thus, the existence of a plan for business continuity enables the company to resume its work at the possible opportunity earliest in case the organization has faced these dangers, and is having a plan for the business continuity is important for each organization as it helps to ensure its survival in good condition (Warren, 2010).

However, the business continuity planning is not merely a simple task summarized in the draw up plans for specific emergencies or avoid the risks, but the ability to management the responding to deal with the situation once you know the consequences, to minimize its losses and resuming its business as soon as possible if you experience any of the natural risks or the contrived (Al-Moamani, 2010).

And by virtue of the geographical location of the capital of Amman, and the nature of different where human activities exposed to many risks including what is normally caused by climatic conditions and geological terrain characteristics, some of which is man-made and caused by the activities of social, industrial, and commercial populations, as well as the factors internal and external political conditions, so study of the crises has become very important to identify the factors and the risks that cause them, in order to confront and mitigation.

2- METHODOLOGY
2.1. The Study Problem and its Questions

The study problem is in need of Amman municipality maintaining on the continuity of its business in the provision of services, where Jordan is passes into different crises, and with the variety and increase these crises must be there to understand the strategic and clear so that you can Amman municipality to provide its services without interruption, addition, the crises risk reduction procedures in its various stages and is still in their infancy and is limited mostly to the reaction by the reaction planning phase, which may affect on the continuity of the

work of organizations in case of an crises. So the study summarized the problem in an attempt to answer the following question:

Is there a significant effect for the business continuity management in reduction of the crises risks at the greater Amman municipality?

2.2. The Study Importance

This study gained its importance from the same subject, in the first study type in the limits of science researcher on the role of GAM in the crises management, and it became clear that organizations of all kinds that perform its business under a turbulent environment, making the existence of the business continuity management within the organization be necessary to ensure the uninterrupted supply of key resources needed to support critical business activities and to accelerate the return organizations to resume their daily work, and to adopt the appropriate mechanism of action, which will be followed by the organization to prepare for re-key operations in the wake of the crises and the crises to ensure its survival in the long term.
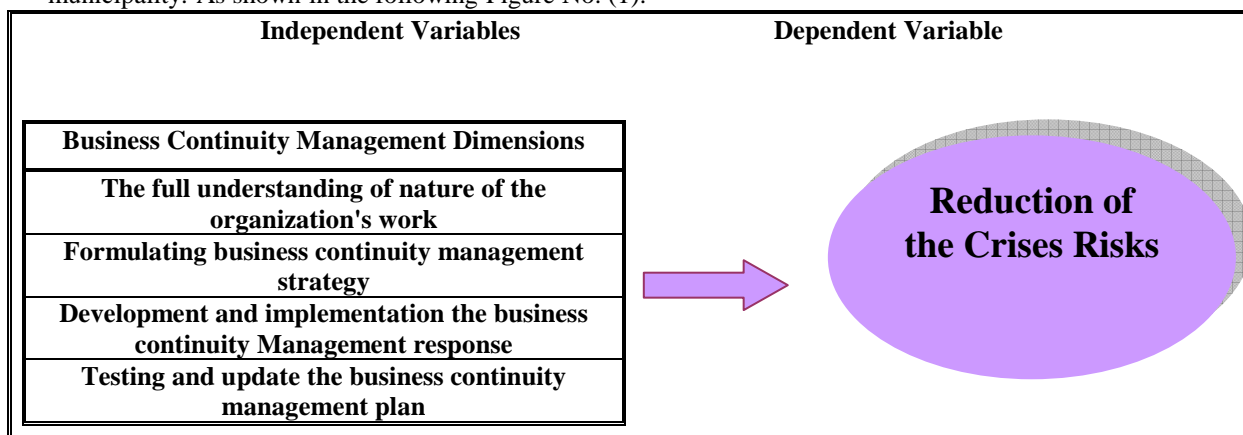
3.2. The Study Objectives

This study aims basically to measure the impact of the business continuity management in the crises risks reduction at the greater Amman municipality, through the following sub-objectives:

a. Identify the concept of business continuity management and to the reality of interest in Amman municipality and its role in reduction of the crises risks.

b. Identify the nature of the objectives in Amman municipality in reduction of the crises risks.

c. Possibility of reaching to the results through which assist the decision-makers in Amman municipality in order to develop them.

4.2. The Study Model

In light of the study objectives was to propose the following study model, for the purpose of analyzing the impact of the business continuity management in reduction of the risks of crises at the greater Amman municipality. As shown in the following Figure No. (1):

Source: Prepared by the researcher.

Figure 1: Study Model

5.2. The Study Hypothesis

To achieve the study objectives, the researcher develop the following hypotheses as a null form (H_0):

H_0: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the **business continuity management dimensions** in reduction of the crises risks at the greater Amman municipality.

The study hypothesis is divided to the following four sub hypotheses:

H_{01}: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the (**full understanding for nature of the organization's work**) in reduction of the crises risks at the greater Amman municipality.

H_{02}: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for (**formulating business continuity management strategy**) in reduction of the crises risks at the greater Amman municipality.

H_{03}: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for (**development and implementation the business continuity Management response**) in reduction of the crises risks at the greater Amman municipality.

H_{04}: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for (**testing and update the business continuity management plan**) in reduction of the crises risks at the greater Amman municipality.

3. THEORETICAL FRAMEWORK & LITERATURE REVIEW

3.1. Theoretical Framework

a. Business Continuity Management

The business continuity management is an important a priority in light of the widening business & creation, and accelerated growth witnessed in the services sectors, because of the economic systems and globalization

changed in light of the increasing dependence on technology, communications and overlapping the work of institutions and increase their dependence on each other, appeared new challenges and risks to the continuity of the business in different sectors, collapse of the organization in the country could have repercussions on the organizations and individuals in various regions of the world, also the natural disasters and attacks on some areas led to the disappearance of the top names and stop products or making serious damage or loss of markets, and in general there are levels and new types of the risks have emerged and continue to emerge as long as there are the development and progression (Pinta, 2011).

There are no agreed definition between researchers on the concept of business management strategy. (Sharp, 2012) defined the business continuity management as: a comprehensive administrative process identifies threats of the institution and the effects of those threats on the conduct of operations by the threats, and that the understanding of this process provides a framework for building organizational capacity with ability to respond effectively that protect the interests of key stakeholders, reputation, trademark, and critical activities in the organization.

Disaster Recovery Institute (DRI) defined the business continuity management as: a prior process arrangements and procedures that will enable the institution to respond for the event to maintain the important business functions of the planned levels without interruption or substantial change.

To do that, the business continuity management goes beyond in its objectives the recovery from the disaster in order to stretch to create a culture within the organization seeks to address the failures and crises and to integrate as much as possible in the organization as an integral part of the management process, as has been the main tasks have classified into three stages: Continuity before the event, during the event, and after the event (Tammineedi, 2010).

The need to manage business continuity appeared in the early years of the seventies to protect the information systems from the effects of disasters on the restoration of the institution in order to the vital accompany her after a major accident such as loss of the computerized information or the communications, or loss of a building due to the fire or the flooding, it has been distributed the responsibility for these plans through the different functions within the company, several previous studies indicate that the reason for decline of interest during the years of the seventies and eighties in the business continuity of information technology management because has been seen as the business continuity like a case involving the information technology only, and that this function without the other is the main engine for the business continuity management (Gibb & Buchanan, 2006).

The newly emerging risks exceed the speed of design solutions to address them, and with the beginning of the atheist and the twentieth century with the terrorist attacks and financial scandals of the companies, and the spread of technology and changing weather patterns have become the institutions need to be a strong response and be fitted with a good potential, integrated, flexible, and can be controlled at the same time (Herbane & et al., 2004). The institutions can in a time of the crisis and the risks to deal with the challenges they face and to its management better through the preparation and a preemptive planning for its (Gage & Reinoso, 2002). Thus, the work requires within the innovative approach and adaptive in order to help the organizations to reduce or mitigation of the disasters and the crises through the security programs management, and that these programs be proactive through their ability to prepare for the crises and to respond and recover from the unexpected event to effectively ensure continuity of operations (Hinde, 2002).

(Sawalha, 2012) refers to the business continuity management objectives include: expect institutional risks and the disasters and the crises before they occur, preventing from the intentional and unintentional operational errors and correct them, to ensure an effective and rapid response to the disasters and the crises, as well as to ensure the rapid and effective of the recovery after a disaster or the crisis, this can be achieved through planning for disaster recovery, which is represent another element from the components of the business continuity management.

(Botha & Solms, 2004) see the business continuity planning an integrated process aimed at developing measures and procedures to ensure for the institution must be prepared to respond for the disasters and respond to them effectively and also guarantees the continuity of operations that accomplish the institution from which the important business as usual. And the business continuity plan defined as: a document that it carries a central repository of information and the business continuity, the roles, responsibilities, tasks and procedures that should be used to be used in a timely manner to achieve the response for the disaster or the crisis.

(Malalgoda, et al., 2011) see that through a good planning of the business continuity, organization become more prepared to cope with the crises, and make it able to hold at the time of discontinuity in the performance of daily operations to reduce the possibility that this discontinuity incidents turn out to serious incidents lead to the collapse of the organization and it is possible to reduce the crises or prevented by the proper dependence on the strategies of reduction the risks.

b. Reduction of the Crises Risks

The reduction of the crises risks and the crisis is defined as: taking measures early to address the weaknesses and reduce the risks and anticipate the risks that affect the environment, social aspects, and the economic growth,

and considered the cornerstone of sustainable development, to ensure that development efforts do not increase to vulnerability for risks (Palliyaguru, Amaratunga & Haigh, 2010).

The crises characterized as part-nature or completely an extraordinary situation, and usually unexpected and can cause the occurrence of severe injuries and loss of life, and happened vast destruction to property or the environment, and the crisis response require to it with average higher than the usual responding averages in normal situations (Mesaadah, 2013).

Of the things consider when take decision a risk management, the planning process for the risk managing, and that the ensuing taking into account precautionary steps, where they are examining the possibility of removing the danger or minimize the effects of destructiveness by raising the readiness to prepare for such risks, and how to wellness from the effects if they occur and will be work the plan of the crisis management is supposed to involving assistive devices, and work environmental control for the risks which managing required, and contribute this monitoring the possibility of early warning as a means of activating the precautionary steps in the event of the danger. The efficiency of the early warning and the extent of use its results in the activation of the crisis management mechanism depends on the quality of the risk and the used technology to predict the risk (Abu Fara, 2008).

The result precautionary steps and pallaitive policies include knowledge about the nature and risk that are adopted from various sources, whether governmental or private. And it includes: prevention, enticement, spreading awareness of the risks. prevention and enticement be achieved through mitigation procedures and precautionary measures with the support from the public sector institutions because of their prohibitive cost and the difficulty in the application. The spread awareness about the risks represent efforts to urge citizens and institutions to take precautionary and the pallaitive measures to reduce their exposure to the material and human losses (Al-Momani, 2012).

Thus the science of the crises management is structured around four main themes to be applied effectively, namely: pallaitive, preparedness, response, and wellness, the pallaitive and preparedness phases take place before the crisis, while the response and wellness phases come beyond.

3.2. LITERATURE REVIEW

  - **Study of (Pitt & Goyal, 2004)** entitled: Business Continuity Planning as A Facilities Management Tool. The study aimed to the need for a plan for the business continuity in the majority of the institutions, by shedding light on the institutions that did not plan this way and those that focus on the information technology instead of take advantage of the integrated approach to planning for the continuity of the business and in the business environment in the UK has been to focus on five areas: commercial activity away from the information technology, which is loss of the buildings, loss of key personnel, loss of the confidential information, loss of telephone networks, and the loss of for companies stationery. To achieve the study objective, a questionnaire was used to cover all the different institutions in the United Kingdom. The study found that business continuity planning has evolved from a plan to recover from disasters and the crises as a simple reaction to the crisis management paid by IT to a proactive approach.

- **Study of (Low & et al., 2010)** entitled: Business Continuity Management in Large Construction Companies in Singapore and Singapore. The study aimed to statement as to whether the major companies practiced the business continuity management, and what are the crises that sees companies that have an impact on the institutions? What is the reaction to certain crises?. The study was carried out a survey in a way the two groups of contractors to examine their perspectives on the business continuity management of contractors, public sector senior contractors. And achieve the study objectives were used a questionnaire, and the study was conducted on a sample of (48) company. The results showed that the companies depend on the government in take appropriate measures to mitigate the crises when they occur.

- **Study of (Pheng & et al., 2010)** entitled: Institutional Compliance Framework and Business Continuity Management in Mainland China, Hong Kong SAR and Singapore. The study aimed to understand the reasons behind the lack of knowledge of many commercial companies of the business continuity management and not applied in spite of the risks and the crises that surround the business environment within their organizations. The study depend on application of a questionnaire on the major construction companies in China, Hong Kong and Singapore to identify threats and the crises which they face. The study found that rational choice theory, the normative theory, normative the cultural and epistemological theory, provide useful indicators to understand the decisions taken and actions to be taken to encourage more of the construction companies to adopt, develop and implement the business continuity management in their organizations.

- **Study of (Al-Momani, 2010)** entitled: Business Continuity Planning: Are We Prepared for Future Disasters. The study aimed to prepare and implement the effective business continuity plans that can deal with non-normal conditions and in order to minimize the losses caused by these disasters and man-made. The study was used the analytical methodology from which to discuss the major risk factors that could cause failure of the business, what are the main strategies to prevent commercial losses? in order to provide counseling about the continuity plans of the effective work for the organizations. The study found that natural disasters and man-made can cause

a lot of cash losses and increase mortality and cause the losses in the activities, products, and services, and that it is necessary to prepare and implement the effective business continuity plans can to deal with non-normal conditions in order to minimize the losses caused by these disasters.

- Study of (Sawalha & et al., 2012) entitled: **Business Continuity Management in Jordanian Banks: Some Cultural Considerations.** The study aimed to find out to what extent can the Jordanian banks sector that used the business continuity management as a way to manage the organizational risks, disasters and the crises. The study population consists (17) banks registered with Amman Stock Exchange, since the data was collect through a questionnaire by interview in a way, and after distribution of the questionnaires, the researchers conducted three semi-structured interviews with business continuity management at three Jordanian banks from different cultural referents, local Islamic and foreign where it was for all the participants applied programs to manage the business continuity. The study results indicated that the banking sector in Jordan is moving towards the best practices for managing the business continuity but so far did not achieve any of the banks' international recognition of the certificate, and generally the results showed that the banks in Jordan are aware of the risks and volatility in regional and global business environments and the banking business it is a risky business.

4. METHODS AND PROCEDURES

4.1. The Study Approach

The study used the descriptive and analytical approaches for the completion of this study, it was used descriptive approach to describe the evaluation of the business continuity management in the greater Amman municipality, also the study was use the analytical approach to measure the impact of the business continuity management in reduction the crises risks at the greater Amman municipality.

4.2. The Study Population and its Sample

The study population consists of all employees in a number of the greater Amman municipality with different categories and their specialties totaling (23000) employees. It was selected as an appropriate sample consisting of (180) employees. The researcher distributed (230) questionnaires were retrieved (202) questionnaire, with reaching retrieval percentage of (88%), and thus the number of valid questionnaires for statistical analysis (180) questionnaire with (78%) from the retrieved questionnaires number.

4.3. The Study Tool

To achieve the objectives of the study, and after returning to the administrative literature, the tool is designed to describe the business continuity management dimensions and its impact in reduction the crises risks at the greater Amman municipality. The tool consisted of three parts, the first part of which dealt with the personal and functional information, while the second part dealt with the business continuity management dimensions, while the third part included the variable (reduction of the crises risks). And was used (Likert Scale) to measure the evaluation level of the business continuity management dimensions. It was the adoption of a scale to measure the business continuity management dimensions is divided into three levels, where the calculated cut-off grade by dividing the difference between the highest value of the scale (5) and the lowest value in it (1) at three levels, namely that the cut-off grade was equals to $\{(1-5)/3 = 1.33\}$.And thus the three levels as follows:

1. Low evaluation level: (1 - 2.33).
2. Medium evaluation level: (2.34 - 3.67).
3. High evaluation level: (3.68 - 5).

After that was measured the tool sincerity and its reliability, as follows:

a. Tool Sincerity

Has been verified the (Face Validity) of the study tool, and through the presentation to a group of arbitrators with expertise and knowledge of administrative literature at the Jordanian universities, and was the aim of the arbitration verify the extent of items belonging to the study variables, an appropriate degree of drafting items Linguistically, Has been taking into account the comments of the arbitrators, where been modification reworded drafting some of items, so that the questionnaire is designed in its final form.

b. Tool Reliability

To check the questionnaire reliability, the stability coefficient was calculated for the tool (the internal consistency of the questionnaire items) using coefficient (Cronbch's Alpha) coefficient, and the reliability coefficient for the overall tool is (0.926), as shown in Table (1) the following:

Table 1. Results of Reliability (Internal Consistency of the Questionnaire items)

The Variables	N	Cronbach's Alpha	Stability Ratio
The full understanding for nature of the organization's work	8	0.716	71.6%
Formulating business continuity management strategy	7	0.771	77.1%
Development and implementation the business continuity Management response	7	0.694	69.4%
Testing and update the business continuity management plan	7	0.765	76.5%
Reduction the crises risks	14	0.791	79.1%
Overall Tool	**43**	**0.926**	**92.6%**

4.4. The Statistical Methods

After that was finished of the emptying the data in the computer, were used some statistical descriptive and analytical methods, which its available in the Statistical Package for Social Sciences (SPSS), in order to answer the study question and testing the hypotheses, So the statistical methods that were used for the purposes of the statistical analysis of data are (Means and Standard deviations, Cronbch's Alpha coefficient, Stepwise multiple linear regression, and Simple linear regression).

5- RESULTS AND DISCUSSION

The purpose of this section to present the results of the statistical analysis of data subjects' responses of the study sample study, which was reached through the use of Statistical Package for Social Sciences (SPSS) .

5.1. Results Related to the Study Question

What the evaluation level of the business continuity management dimensions in the greater Amman municipality from the perspective of their employees?

To answer the study question, it has been calculated the means and standard deviations to evaluate the employees responses on each dimension of the business continuity management.

The results in Table (2), indicates to the descriptive analysis of the employees responses in the greater Amman municipality, about the evaluate level of the business continuity management:

Table 2. Means and Standard Deviations for the Study Variables

No	Business continuity management dimensions	Mean	Std. Dev.	Rank	Evaluation Level
1	The full understanding for nature of the organization's work	3.69	0.69	4	High
2	Formulating business continuity management strategy	3.87	0.64	2	High
3	Development and implementation the business continuity Management response	3.74	0.68	3	High
4	Testing and update the business continuity management plan	3.92	0.61	1	High

The results in Table (2), refers to the means of the business continuity management dimensions which are (The full understanding for nature of the organization's work, Formulating business continuity management strategy, Development and implementation the business continuity Management response, and Testing and update the business continuity management plan) (3.69, 3.87, 3.74, and 3.92) respectively, and all the means are larger than the test criteria (3) of (5) on (Likert Scale). These results indicate to possession of the employees in the greater Amman municipality, a clear vision about the importance of these dimensions, which indicates that the evaluation was (positive).

Also, the dimension (Testing and update the business continuity management plan) got on ranked (first) in terms of its importance for the employees, an mean was (3.69) and standard deviation of (0.69), and the dimension (Formulating business continuity management strategy) came at ranked (second), with mean (3.87) and standard deviation of (0.64), and the dimension (Development and implementation the business continuity Management response) came at ranked (third), with mean (3.74) and standard deviation of (0.68), and finally the dimension (The full understanding for nature of the organization's work) came at ranked (forth) and the last on the ladder of priorities estimates of the employees in the greater Amman municipality, with mean (3.69) and standard deviation of (0.69).

5.2. Results Related to Test the Hypothesis

The researcher will test the study hypothesis as follows:

H_0: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the business continuity management dimensions in reduction of the crises risks at the greater Amman municipality.

In order to test the validity of the study hypothesis was used the stepwise multiple linear regression analysis.

As shown in table (3) and (4) below:

Table 3. Summary of Stepwise Multiple Linear Regression Model

R	R^2	F $_{Ratio}$	Sig.	df.	Tabulated (F)
0.777	0.604	89.409	0.000	(3, 176)	2.60

The results in table (3) show that:

a. Validity of multiple linear regression is proven, this is asserted by the calculated value (F) (89.409) which is greater than (2.60), and that the significance value (0.000) is less than the significance level ($\alpha = 0.05$).

b. The value of the (R^2) of (0.604), refers to the business continuity management dimensions, interprets the percentage (60.4%) of the changes in reduction of the crises risks at the greater Amman municipality.

Table 4. Results of the Stepwise Multiple Linear Regression Analysis

Business continuity management dimensions	Coefficients (β)	(t) value	Sig.	Beta
Constant (β_0)	1.009	5.886	0.000	-
Development and implementation the business continuity Management response	0.317	6.178	0.000	0.382
Formulating business continuity management strategy	0.221	4.407	0.000	0.292
Testing and update the business continuity management plan	0.185	3.507	0.001	0.231

The results in the table (4), refers to the following:

a. The statistical significant of regression coefficients (β) for **three dimensions** (development and implementation the business continuity Management response, formulating business continuity management strategy, and testing and update the business continuity management plan) is proven, therefore, there is a statistically significance impact at the significant level ($\alpha = 0.05$) for the above dimensions in reduction of the crises risks at the greater Amman municipality. Depend on the statistical significant values (0.000, 0.0002, and 0.001) respectively, and all the values less than the significant level ($\alpha = 0.05$), this means that the null hypothesis (H_0) is **rejected.**

b. The values of the standardized coefficients (Beta) calculated for the dimensions (development and implementation the business continuity Management response, formulating business continuity management strategy, and testing and update the business continuity management plan) which are (0.382, 0.292, and 0.231) respectively, show that increase of the mentioned dimensions by a unity standard deviation will lead to increase the interest of the greater Amman Municipality in reduction of the crises risks at the greater Amman municipality by (38.2%, 29.2%, and 23.1%) respectively.

5.2.1. Results Related to Test the 1st Sub-Hypothesis

H_{01}: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for the (**full understanding for nature of the organization's work**) in reduction of the crises risks at the greater Amman municipality.

In order to test the validity of the study hypothesis was used the simple linear regression analysis. As shown in table (5) and (6) below:

Table 5. Summary of the Simple Linear Regression Model

R	R^2	F $_{Ratio}$	Sig.	df.	Tabulated (F)
0.620	0.384	111.013	0.000	(1, 178)	3.84

The results in table (5) show that:

a. Validity of simple linear regression is proven, this is asserted by the calculated value (F) (111.013) which is greater than (3.84), and that the significance value (0.000) is less than the significance level ($\alpha = 0.05$).

b. The value of the (R^2) of (0.384), refers to the full understanding for nature of the organization's work dimension, interprets the percentage (38.4%) of the changes in reduction of the crises risks at the greater Amman municipality.

Table 6. Results of the Simple Linear Regression Analysis

Independent Variable	Coefficients (β)	(t) value	Sig.	Beta
Constant (β_0)	1.302	5.517	0.000	-
The full understanding for nature of the organization's work	0.609	10.536	0.000	0.620

Seen from the results in the table (6), the following:

a. The statistical significant of regression coefficients (β) for the dimension (full understanding for nature of the organization's work) is proven, therefore, there is a statistically significance impact at the significant level (α

= 0.05) for the above dimension in reduction of the crises risks at the greater Amman municipality. Depend on the statistical significant value and this value less than the significant level (α = 0.05), this means that the null hypothesis (H_{01}) is **rejected.**

  b. The values of the standardized coefficients (Beta) calculated for the dimension (full understanding for nature of the organization's work) which is (0.620), show that increase of the mentioned dimension by a unity standard deviation will lead to increase the interest of the greater Amman Municipality in reduction of the crises risks at the greater Amman municipality by (62%).

5.2.2. Results Related to Test the 2nd Sub-Hypothesis

  H_{02}: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for (**formulating business continuity management strategy**) in reduction of the crises risks at the greater Amman municipality.

  In order to test the validity of the study hypothesis was used the simple linear regression analysis. As shown in table (7) and (8) below:

Table 7. Summary of the Simple Linear Regression Model

R	R^2	F_{Ratio}	Sig.	df.	Tabulated (F)
0.665	0.442	140.758	0.000	(1, 178)	3.84

The results in table (7) show that:

  a. Validity of simple linear regression is proven, this is asserted by the calculated value (F) (140.758) which is greater than (3.84), and that the significance value (0.000) is less than the significance level (α = 0.05).

  b. The value of the (R^2) of (0.442), refers to the formulating business continuity management strategy dimension, interprets the percentage (44.2%) of the changes in reduction of the crises risks at the greater Amman municipality.

Table 8. Results of the Simple Linear Regression Analysis

Independent Variable	Coefficients (β)	(t) value	Sig.	Beta
Constant (β_0)	1.827	10.997	0.000	-
Formulating business continuity management strategy	0.503	11.864	0.000	0.665

The results in the table (8), indicates to the following:

  a. The statistical significant of regression coefficients (β) for the dimension (formulating business continuity management strategy) is proven, therefore, there is a statistically significance impact at the significant level (α = 0.05) for the above dimension in reduction of the crises risks at the greater Amman municipality. Depend on the statistical significant value and this value less than the significant level (α = 0.05), this means that the null hypothesis (H_{02}) is **rejected.**

  b. The values of the standardized coefficients (Beta) calculated for the dimension (formulating business continuity management strategy) which is (0.665), show that increase of the mentioned dimension by a unity standard deviation will lead to increase the interest of the greater Amman Municipality in reduction of the crises risks at the greater Amman municipality by (66.5%).

5.2.3. Results Related to Test the 3rd Sub-Hypothesis

  H_{03}: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for (**development and implementation the business continuity Management response**) in reduction of the crises risks at the greater Amman municipality.

  In order to test the validity of the study hypothesis was used the simple linear regression analysis. As shown in table (9) and (10) below:

Table 9. Summary of the Simple Linear Regression Model

R	R^2	F_{Ratio}	Sig.	df.	Tabulated (F)
0.686	0.471	158.405	0.000	(1, 178)	3.84

The results in table (9) show that:

  a. Validity of simple linear regression is proven, this is asserted by the calculated value (F) (158.405) which is greater than (3.84), and that the significance value (0.000) is less than the significance level (α = 0.05).

  b. The value of the (R^2) of (0.442), refers to the development and implementation the business continuity management response dimension, interprets the percentage (44.2%) of the changes in reduction of the crises risks at the greater Amman municipality.

Table 10. Results of the Simple Linear Regression Analysis

Independent Variable	Coefficients (β)	(t) value	Sig.	Beta
Constant (β_0)	1.647	9.636	0.000	-
Development and implementation the business continuity Management response	0.569	12.586	0.000	0.686

Seen from the results in the table (10), the following:

a. The statistical significant of regression coefficients (β) for the dimension (development and implementation the business continuity Management response) is proven, therefore, there is a statistically significance impact at the significant level ($\alpha = 0.05$) for the above dimension in reduction of the crises risks at the greater Amman municipality. Depend on the statistical significant value and this value less than the significant level ($\alpha = 0.05$), this means that the null hypothesis (H_{03}) is **rejected.**

b. The values of the standardized coefficients (Beta) calculated for the dimension (development and implementation the business continuity Management response) which is (0.686), show that increase of the mentioned dimension by a unity standard deviation will lead to increase the interest of the greater Amman Municipality in reduction of the crises risks at the greater Amman municipality by (68.6%).

5.2.4. Results Related to Test the 3rd Sub-Hypothesis

H_{04}: There is no statistically significant impact at the significant level ($\alpha \leq 0.05$), for (**testing and update the business continuity management plan**) in reduction of the crises risks at the greater Amman municipality.

In order to test the validity of the study hypothesis was used the simple linear regression analysis. As shown in table (11) and (12) below:

Table 11. Summary of the Simple Linear Regression Model

R	R^2	F Ratio	Sig.	df.	Tabulated (F)
0.641	0.411	124.062	0.000	(1, 178)	3.84

The results in table (11) show that:

a. Validity of simple linear regression is proven, this is asserted by the calculated value (F) (124.062) which is greater than (3.84), and that the significance value (0.000) is less than the significance level ($\alpha = 0.05$).

b. The value of the (R^2) of (0.442), refers to the testing and update the business continuity management plan dimension, interprets the percentage (44.2%) of the changes in reduction of the crises risks at the greater Amman municipality.

Table 12. Results of the Simple Linear Regression Analysis

Independent Variable	Coefficients (β)	(t) value	Sig.	Beta
Constant (β_0)	1.753	9.564	0.000	-
Testing and update the business continuity management plan	0.515	11.138	0.000	0.641

The results in the table (12), refers to the following:

a. The statistical significant of regression coefficients (β) for the dimension (testing and update the business continuity management plan) is proven, therefore, there is a statistically significance impact at the significant level ($\alpha = 0.05$) for the above dimension in reduction of the crises risks at the greater Amman municipality. Depend on the statistical significant value and this value less than the significant level ($\alpha = 0.05$), this means that the null hypothesis (H_{04}) is **rejected.**

b. The values of the standardized coefficients (Beta) calculated for the dimension (testing and update the business continuity management plan) which is (0.641), show that increase of the mentioned dimension by a unity standard deviation will lead to increase the interest of the greater Amman Municipality in reduction of the crises risks at the greater Amman municipality by (64.1%).

6. CONCLUSIONS

The study reached to a number of conclusions, among them the following:

a. The results explained that the possession of the employees in the greater Amman municipality, a clear vision about the importance of the dimensions of business continuity management, which indicates that the evaluation was (positive).

b. The results showed that the dimension (the full understanding for nature of the organization's work) got at the (forth) rank and the last, in the scale of priorities of the employees in the greater Amman municipality.

c. There exist a statistically significant impact at the significant level ($\alpha = 0.05$), for the dimension (full understanding for nature of the organization's work) in reduction of the crises risks at the greater Amman municipality.

d. There exist a statistically significant impact at the significant level ($\alpha = 0.05$), for the dimension (formulating

business continuity management strategy) in reduction of the crises risks at the greater Amman municipality.

e. There exist a statistically significant impact at the significant level (α =0.05), for the dimension (development and implementation the business continuity Management response) in reduction of the crises risks at the greater Amman municipality.

f. There exist a statistically significant impact at the significant level (α =0.05), for the dimension (testing and update the business continuity management plan) in reduction of the crises risks at the greater Amman municipality.

REFERENCES

[1] Abu Fara, Yousif Ahmed, (2008), The crises management: an integrated entrance, the first edition, Dar Ethra'a for Publishing and Distribution, Amman, Jordan.

[2] Al-Moamani, Na'el Mohammed, (2012), The crises and disaster management, Dar Wael for Publishing and Distribution, Amman, Jordan.

[3] Al-Moamani, Na'el Mohammed, (2010), Business continuity planning: are we prepared for future crises, Journal of Economics and Business Administration, 2(3).

[4] Botha, J. and Solms, R., (2004), A cyclic approach to business continuity planning, Information Management and Computer Security, 12(4).

[5] Gage, T. and Reinoso, V., (2002), Leading through uncertain times, Journal of Business Strategy, 23(2).

[6] Herbane, B., Elliott, D. and Swartz, E., (2004), Business continuity management: Time for a strategic role, Long Range Planning, 37(5).

[7] Hinde, S., (2002), Security surveys spring crop, Computer and Security, 21(4).

[8] Karim, A., (2011), Business crises preparedness: An empirical study for measuring the factors of business continuity to face business crises, International Journal of Business and Social Sciences, 2(18).

[9] Low, S., Liu, J. and Sio, S., (2010), Business continuity management in large construction companies in Singapore, Crises Prevention and Management, 19(2).

[10] Malalgoda, Amaratunga & Pathirage, (2011), Exploring crises risk reduction in the built environment, Building Economist.

[11] Mesaadah, Majid Abdul-Mahdi, (2013), The crises management: entrances-concepts- operations, Dar Al-Thakafa for Publishing and Distribution, Amman, Jordan.

[12] Palliyaguru, R. Amaratunga, D., Haigh, R., (2010), Integration of crises risk reduction into infrastructure reconstruction sector, International Journal of Disaster Resilience in the Built Environment, 1(3).

[13] Pheng, L.,Ying, L., Kumaraswamy, M., (2010), Institutional compliance framework and business continuity management in mainland china, Hong Kong SAR and Singapore, Crises Prevention and Management,19(5).

[14] Pinta, J., (2011), Disaster recovery planning as part of business continuity management, Agris on-line Papers in Economics and Informatics, 3(4).

[15] Pitt M. and Goyal S., (2004), Business continuity planning as a facilities management tool. facilities, 22(34).

[16] Sawalha I., Anchor J., and Meaton J., (2012), Business continuity management in Jordanian banks: Some cultural considerations, Risk Management, 14(4).

[17] Sharp,J., (2012), Route map to business continuity management- meeting the requirements of ISO-22301, British Standards Institution.

[18] Tammineedi, R., (2010), Business continuity management: standards-based approach, Information Security Journal: A Global Perspective,19(1).

[19] Touama, H. Yasien, (2011), Statistical tests: Principles and applications, Dar Safaa for Printing and Publishing and Distribution, Amman, Jordan.

[20] Warren, C., (2010), Role of public sector asset managers in responding to climate change crises and business continuity planning, Property Management, 28(4).