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# **Business Continuity Management in Jordanian Banks: some**cultural considerations

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**Abstract** 

This paper investigates the extent to which the Jordanian banking sector uses Business Continuity

Management (BCM) as a way to manage organizational risk, disasters, and crises, as well as business

interruptions.

The population in this study consists of the 17 Jordanian banks registered with the Amman Stock

Exchange. Data was collected via an interviewer-administered questionnaire. 11 completed

questionnaires were obtained, representing a response rate of 64.7%. Questionnaires were followed by

three semi-structured interviews conducted with BCM managers from three Jordanian banks from

different cultural backgrounds; local, Islamic, and foreign.

All the respondents have BCM programs in place. There are no statistically significant differences in

the practice of BCM between Jordanian banks in terms of organizational characteristics, such as size

and age. However, the cultural backgrounds of the banks and culturally determined differences in their

operations more generally have influenced the practice of BCM in significant ways.

Key words - Business Continuity Management; Banks; Culture; Jordan; Risk.

1. Introduction

This paper investigates the extent to which the Jordanian banking sector uses BCM; considers the range

of BCM practices within Jordanian banks; examines whether or not there are statistically significant

differences in the practice of BCM in Jordanian banks in terms of organizational characteristics, such

as size (measured in number of employees) and age (measured in number of years since establishment)

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of the bank; and examines whether the cultural background of the bank and cultural differences in their operations have influenced the practice of BCM in Jordanian banks.

The significance of this research is that it is undertaken in the context of the Middle East, and Jordan in particular. The majority of the published literature on BCM in banks is focused on the United States and Europe. Less attention has been given to the use of BCM in other geographical contexts (Rai and Mohan, 2006). This research is the first to investigate the use of BCM in the Jordanian banking sector.

The banking sector worldwide faces various types of external and domestic risks which threaten the success and long-term survival of many banks. The extreme turbulence of financial markets since September 2008, the destruction of the World Trade Centre in 2001, cyber space attacks, and global terrorism have convinced many banks of the need to ensure business continuity following unexpected incidents and to realize monetary stability (Al-Tamimi and Al-Mazrooei, 2007; Swartz et al., 2003). Since the countries of the Middle East, and Jordan in particular, are not isolated from the global business environment, they have also experienced similar challenges and developments (Al-Shammari and Hussein, 2008). Jordanian banks also face many domestic threats, such as rising inflation, changes of lending and borrowing rates in the light of developments in international markets, and a continuous government budget deficit (Miani and Daradkah, 2008; Abumustafa, 2006).

Jordan is a small country and is one of the most open in the Middle East to foreign investment (Gentzoglanis, 2007). Jordanian banks represent an especially good context for investigating BCM, for four main reasons. First, the banking sector is held to have provided an appropriate and rich environment for the development and implementation of BCM (Swartz et al., 2003). Second, banks in Jordan have undergone significant developments during the past four decades (Miani and Daradkah, 2008). Third, banks are sensitive to the need to sustain a strong positive reputation and public image, compared to many other organizations. Fourth, banking is a business of risk (Al-Tamimi and Al-Mazrooei, 2007). Therefore, providing customers with secure and uninterruptible banking services lays the foundation for ensuring the long-term success of a bank and improves its competitive advantage.

The paper is organized into six sections. Sections 2 and 3 provide a review of relevant literature. Section 4 discusses the research methodology. Section 5 presents the survey results and discusses the findings. Finally, section 6 provides a summary of the key findings and concluding remarks.

# 2. Jordanian culture and the banking industry

One of the most powerful forces influencing organizations in all sectors is culture. Culture to an organization is like personality is to a human being, and since many aspects of human personality are unconscious, many aspects of organizational culture are hidden. Therefore, organizations may be unaware of the forces influencing their actions which subsequently can cause crises and disasters (Smith and Elliott, 2007; Pearson and Mitroff, 1993; Mitroff, 1988; and Pauchant and Mitroff, 1988). "Crisis-prone organizations have institutionalized 'sickness' in their culture, thus making it acceptable; furthermore, they put tremendous pressure on 'normal' individuals to become 'sick' in order to fit in . . . It is not what members of the family do that leads to disaster: it is how they are" (Pauchant and Mitroff, 1992). Organizational culture represents the emotional and belief system of the senior executives and employees, as well as their attitudes. It shapes values and norms, is learned and transmitted between individuals and teams through social learning and day-to-day interaction. Therefore, organizational culture affects the way organizations cope with external pressures that might threaten their long-term survival and internal integration, as well as the development of crisis and disaster management strategies and plans (Kulatunga, 2010; Kondra and Hurst, 2009).

National culture is also influential in this context. Arab culture is dominant within many Jordanian organizations including banks. The Jordanian economy, the country's politics, management systems, and business organizations should be seen in their wider Arab context. Arab culture shapes values and practices and subsequently business operations (Al-Rasheed, 2001; and Dadfar, 1993). Moreover, a more in-depth look at the culture of Jordan reveals that subcultures also exist; local and Islamic. Yaghmour et al. (2009) identify three categories of banks in Jordan, in line with these subcultures; that is to say local banks and Islamic banks, in addition international ones. It should be noted also that even local cultures in Jordan differ according to the geographical location, religious and ethnic makeup, and

distribution of the population. Some local cultures in Jordan are more open than others. Some are conservative and reluctant to change especially in terms of adopting modern lifestyles and trends.

Local culture in Jordan traces its roots back to Arab culture mainly. Islamic culture is similar to Arab culture; however, it is centred on religious values and teaching and calls for living, working, and running businesses according to an Islamic perspective and Islamic principles (Communicaid, 2009; Sabri, 2004). Therefore, Islamic banks operate according to Islamic frameworks, laws, and guidelines. Islamic banks may sometimes be reluctant to adopt some contemporary international frameworks due to their incompatibility with Islamic teachings and traditions (Al-Ajlouni, 2004; El-Gamal, 2000).

Arab language and traditions are considered the main drivers of Arab culture. Masculinity and bureaucracy are amongst the main features of Arab culture (Al-Rasheed, 2001; Dadfar, 1993). Arab organizations have a culture that is different from that of the West where there are higher levels of democracy, where women are involved in business, and where freedom in the work place exists (Sabri, 2004; Hofstede, 1991). Centralization of power and the existence of lines of authority and hierarchy are also among the features that characterise the Arab business environment. The workplace is highly regulated, systemized, dominated by rules and procedures and is associated with low levels of autonomy and delegation (Ababaneh, 2010). These features have the potential to influence the progress of Jordanian banks and remain an ongoing source of risk and organizational crises. This is consistent with the views of Creane et al. (2004) who argued that the legal, political, business and institutional environments within which the financial system operates determine the range and quality of services offered by financial institutions and banks.

The banking industry in Jordan can be traced back to the early 1900's with the establishment of the "Ottoman Bank" in 1925. Soon after, the "Arab Bank", the largest commercial bank in Palestine, was relocated to Amman and a number of local, Islamic, and foreign banks subsequently were established in Jordan. The Jordanian government encouraged banking services as a key driver to its economic growth between the mid-1970's and the early 1980's (Yaghmour et al., 2009). Like many other countries in the Arab World and the Middle East more generally, Jordan has gone through extensive

economic and financial reforms during the 1990's and 2000's (Abumustafa, 2006; Creane et al., 2004). These reforms have made the Jordanian banking sector more like those of developed countries and driven changes to banking operations and service banking (Miani and Daradkah, 2008). The Central Bank of Jordan (CBJ) plays the key role in the development and implementation of the country's monetary policy (Yaghmour et al., 2009; Miani and Daradkah, 2008).

In spite of its rapid development, Jordan's banking sector has experienced many difficulties in the last few decades, as well as economic and financial crises, and is still facing a wide range of forces and pressures (Miani and Daradkah, 2008; Abumustafa, 2006).

Moreover, the increase in economic activity in Asia, globalization, financial openness, and the extensive use of information technologies in the banking industry have changed the way banking operations are performed and have increased the level of risk associated with these operations (Rai and Mohan, 2006; Al-Ajlouni, 2004). Banks face a wide set of risks that have to be prepared for and managed effectively in order to sustain a high level of operability. These risks include: credit risk, liquidity risk, foreign exchange risk, market risk, technology risk, and interest rate risk (Al-Tamimi and Al-Mazrooei, 2007).

The main purpose of banks is to maximize revenue and create value for shareholders and customers by providing a wide range of banking services and secure platforms for these services through the effective management of risk. In order to provide better estimates of the future, provide continuous and reliable services, and cope with risk more effectively, banks are increasingly incorporating BCM into their business operations, competitive strategies, and long-term planning (Wong, 2009; Rai and Mohan, 2006). Wong (2009) and Herbane et al. (2004) noted that the finance sector is leading BCM developments due to its high vulnerability to risk, its high reliance on IT, and its crucial role in supporting national economies. In an IT-based environment, BCM ensures the effective management of technology by the most appropriate tools and techniques (Gibb and Buchanan, 2006; Botha and Solms, 2004).

# 3. Business Continuity Management

For the purpose of this paper, BCM is defined as: "a holistic management process that identifies potential threats to an organisation and the impacts to business operations that those threats, if realised, might cause, and which provides a framework for building organisational resilience with the capability for an effective response that safeguards the interests of its key stakeholders, reputation, brand and value-creating activities" (British Standards Institution, 2006, p. 1).

BCM has its roots in IT disaster recovery planning which was first implemented in the late 1970s. The main focus during the 1970s and 1980s was to ensure the continuity and quick recovery of mainframe computing systems, while less attention was given to business and work area continuity and recovery (Tilley, 1995). Subsequently, the use of BCM has spread rapidly within the world's finance sector, as well as other sectors, and there has been a shift in the scope of BCM from an IT-based process into an enterprise-wide and strategic activity that encompasses all business areas. BCM has evolved into a process that identifies internal and external risks facing an organization and provides solutions for effective prevention and recovery (Elliott et al., 2010; Herbane et al., 2004; and Swartz et al., 2003). Continuity training, testing, maintenance, and updating activities are core elements of BCM. They help to establish a continuity culture and facilitate the embedding of this culture within the culture of the organization. They also help to keep BCM as an ongoing process that evolves according to the requirements of business and the changes in the business environment (Elliott et al., 1999).

This enterprise-wide and strategy oriented approach to BCM is a result of three decades of the development of the management and planning practices devoted to prevention and recovery. BCM reflects the much wider crisis management research that has been undertaken since the 1970s, with its prevention focus, decision making orientation and socio-technical systems perspective (Herbane, 2010). This approach to BCM is also highly significant for financial organizations, especially those operating in Jordan and the Middle East more generally, since these are subject to an ongoing stream of internal and external risks. Moreover, continuous training, testing, maintenance and updating of plans are very important within Jordanian organizations in which little training/short-sighted training policies, awareness programmes, and personal development are provided (Al-Rasheed, 2001).

Various frameworks for BCM have been developed - each of which highlights particular aspects of it (e.g. Herbane, 2010; Tammineedi, 2010; Elliott et al., 2010; Clas, 2008; Selden and Perks, 2007; Gibb and Buchanan, 2006; Pitt and Goyal, 2004; Botha and Solms, 2004; Moore and Lakha, 2004; Meyer-Emerick and Momen, 2003; Zawada and Schwartz, 2003; and Gallagher, 2003). The framework described below draws on these approaches and provides a step-by-step analysis of the key BCM practices.

The framework represents many of the areas of professional BCM best practice that were identified by Hiles (2011). The key merit of the concept of best practice, according to Seeger (2006), is that it represents a popular approach to improving organizational and professional practice. Therefore, the identification - or otherwise- of the characteristics of "best practice" within Jordanian banks may be considered to be an indicator of their "state of play" in this context and a useful tool for comparative evaluation. It does not necessarily mean that the framework is accepted uncritically as an exemplar in this context.

Project planning lays the foundations of BCM. It involves understanding the business and sets the initial planning, objectives, and requirements of BCM. Obtaining senior management support and involvement is crucial at this stage and all through the entire cycle of the BCM process (Gibb and Buchanan, 2006; Gallagher, 2003).

Senior management will then assigns a person with appropriate seniority and authority to have responsibility for BCM and to create teams and assigns roles and responsibilities in order to develop, steer, and maintain BCM (Meyer-Emerick and Momen, 2003).

Risk assessment is considered to be the cornerstone of effective BCM. It identifies the risks facing the organization and the likelihood of these risks occurring (Ashton, 2005; Zawada and Schwartz, 2003).

Business impact analysis (BIA) involves an assessment of the impact of risks on business critical functions and subsequently on the continuity of business operations. It is conducted usually assuming a "worst case scenario" (Tammineedi, 2010; Fitzpatrick, 2007; Botha and Solms, 2004). BIA identifies the level of loss; the extent to which a loss might escalate following an incident; and staff, equipment, and service requirements; and recovery time objectives (Nosworthy, 2000).

Once the necessary information about potential risks; business critical functions; staff; and processes are obtained, and once the output of the BIA is ready, the business continuity teams can decide on the most appropriate continuity and recovery strategies in order to recover disrupted operations (Ashton, 2005; Meyer-Emerick and Momen, 2003).

After deciding on the backup and data recovery strategies, a disaster recovery plan can be developed. The plan provides guidance on the various ways business recovery and recovery support procedures should be initiated during and following a disaster or crisis in order to re-establish the disrupted service(s) (Gibb and Buchanan, 2006).

A business continuity plan contains the continuity and recovery strategies needed for all business areas. Continuity plans however may differ with respect to an organization's specific characteristics, such as size and age. Nevertheless, all business continuity plans must satisfy the requirements of stakeholders, employees, customers, and suppliers (Tammineedi, 2010).

The development of a business continuity plan does not mark the end of the BCM process (Elliott et al., 2010). Plans need to work in real situations and not just in theory (Lindstrom et al., 2010). "BCM is a business culture rather than a project" (Brazeau, 2008). Training helps employees to learn by experience and to work effectively in groups. It also helps to embed BCM within the culture of the organization (Low et al., 2010; Gallagher, 2003).

Continuity testing examines the comprehensiveness and applicability of the developed plans and their ability to cope with various disasters and crises. Full plan testing in a real atmosphere enables continuity teams to find possible weaknesses in the plans and to strengthen them. Testing also builds confidence among people; reduces panic at a time of emergency; and gets everyone familiar with their roles (Pitt and Goyal, 2004; Moore and Lakha, 2004).

Continuity maintenance ensures that continuity plans are capable of responding effectively to the changing nature of the business environment and that they are fit for use and that quality is assured. Regular maintenance protects the organization from having to develop procedures again (i.e. helps to keep plans relevant) which ensures the existence of workable plans at all times (Botha and Solms, 2004).

Continuity maintenance and updating are closely linked. While maintenance ensures that plans are kept relevant, updating ensures that any changes in business activities, systems, and operations, as well as any changes in the business environment, are documented and covered. As a result, regular updating ensures all plans are kept up-to-date and ready to use.

# 3.1 The adoption of BCM in the financial sector

There have been a large number of studies published about BCM. However, there are relatively few empirical studies on the use and practice of BCM in financial institutions, and banks in particular, and they focus mainly on the banking sector in the U.S. and Europe. Few of them have been undertaken in other geographical contexts, such as Asia, and none have been made in the Middle East.

A series of empirical studies by Woodman and Hutchings (2010), Woodman (2008), and Woodman (2007), conducted in the U.K. by the Chartered Management Institute in conjunction with the Civil Contingencies Secretariat in the Cabinet Office and Continuity Forum, revealed that BCM was introduced in major financial organizations as a way of establishing compliance with regulations and as part of corporate governance and that it had a key role in generating resilience in the finance sector. In recognition of the significant role of BCM in the UK's financial sector, the Tripartite Standing

Committee on Financial Stability provided a number of recommendations to enhance the resilience of the U.K. financial system. These included: continuous testing of the BC plans and involving wider U.K. public sector and government in the exercises in order to validate plans in the context of the wider public sector and international response; producing an annual report on BCM; and reviewing BCM plans on a regular basis (FSA, 2006).

Europe more generally has been found to be more or less similar to the case of the UK in terms of the adoption of BCM. Marsh's 2008 First European-wide BCM survey of organizations, largely from the finance and manufacturing sectors, revealed that the use of BCM was increasing as a way of mitigating risk, with70% of respondents reporting that their organizations were at the later stages of BCM implementation and that many of them viewed BCM as an enterprise-wide process. They also reported that BCM was a senior management responsibility (Marsh, 2008). SteelEye Technology conducted a survey in 2006 with organizations from Europe in addition to organizations from the Americas and the Asia Pacific region. The survey findings showed that 83% of respondents from the finance sector had business continuity and disaster recovery plans. The findings indicated that the sector was moving towards BCM best practice and that continuity and recovery plans were implemented, tested, and trained affordably within finance organizations of different sizes (Williamson, 2007).

Rai and Mohan (2006) investigated five major banks in Mumbai. Their study revealed that those banks used BCM. It identified a number of elements which could contribute to the successful implementation of BCM good practice. These included: developing partnerships with suppliers and third parties; considering the value of customers which had the potential to support the bank during unexpected incidents; building a wider customer base supported by multiple delivery channels to ensure continuity; and considering state-of-the-art IT infrastructure.

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<sup>&</sup>lt;sup>1</sup> Marsh is the world's number one insurance broker. It provides clients with the full spectrum of risk and insurance products and solutions (Marsh Ltd., 2011).

# 3.2 Emerging practice: from standard/basic BCM practice to best practice?

According to Hiles (2011), there are ten areas of professional practice of BCM that distinguish standard/basic practice from best practice. These are: program initiation and management; risk evaluation and control; business impact analysis; developing business continuity strategies; developing emergency response and operations; developing business continuity plans; awareness and training programs; business continuity plan exercise, audit and maintenance; crisis communications; and coordination with external agencies. Moreover, the five years 2005-2010 represented the "internationalisation" phase of BCM. This period was accompanied by the introduction of competing standards and guidelines that transcend industry and national boundaries. During this period, organizations from different sectors were motivated to develop capabilities and focus on collaboration in disaster and crisis response. The internationalisation of standards also offered organizations the opportunity to achieve international recognition and certification by improving their BCM practices (Herbane, 2010).

It could be argued that the studies reviewed in section 3.1 may not necessarily reflect what has been actually implemented in terms of BCM best practice in the global financial sector or whether or not what have been reported in these studies shows commitment towards BCM best practice. However, taking what have been reported in these studies for granted and bearing Hiles' (2011) criteria of professional BCM practice in mind, it seems that the global financial sector is more or less moving towards BCM best practice. The studies show that many financial institutions, banks in particular, have introduced BCM as a way of managing organizational risk, disasters, and crises regardless of their size or age. They show an increased concentration on the involvement of senior management and building enterprise-wide BCM. The fact that senior management has been found to be a significant driver of BCM is a result of three decades of the development of management and planning practices devoted to prevention and recovery, as well as the evolution of BCM from an IT issue to a strategic and enterprise-wide process (Herbane, 2010).

The studies also show more commitment to the testing and training aspects of BCM, as well as building a continuity culture within the organization. Moreover, awareness of BCM seems to be increasing in terms of the significance of the participation of business partners, external agencies, third parties, and supply chain partners in the process. Nevertheless, none of these studies reported that financial organizations, especially banks, were doing their best to achieve international certification and recognition in terms of BCM best practice.

# 4. Research methodology

A survey strategy was adopted. Primary and secondary data were obtained. An interviewer-administered questionnaire survey was conducted targeting all banks (local, Islamic, and foreign) registered with the Amman Stock Exchange. Interviewer-administered questionnaires were used due to the fact that they usually result in higher response rates compared to self-administered ones, especially in cases in which samples are small, like the one used in this research, and where every response is considered to be important. Moreover the existence of the interviewer in interviewer-administered questionnaires motivates respondents to complete the entire questionnaire and provide relevant data (Saunders et al., 2000).

The population of this study consisted of 17 Jordanian banks. 11 responded to the questionnaire which represents a 64.7 percent response rate. Questionnaires targeted company headquarters only; branches and divisions were excluded. Testing for non-response bias was conducted in order to ensure that the sample was representative and to check whether there were significant differences between respondents and non-respondents. The Chi-square test was performed in order to check whether there were significant differences between respondents and non-respondents with respect to size, age, and the cultural background of the bank (Bryman and Cramer, 2001). The results revealed that there were no significant differences between respondents and non-respondents.

The questionnaire aimed to collect data regarding the job titles of respondents; banks' specific characteristics, including size and age; and the use of BCM including: (a) whether or not BCM is being used; (b) the duration for which BCM had been adopted; (c) the groups responsible for BCM; and (d)

the range of BCM practices (i.e. the extent to which there is a shift towards BCM best practice in Jordanian banks).

In order to test the relationships between BCM practices and organizational size and age, the Chisquare test was used. The questionnaire included only close-ended questions. A Likert scale was also used for some questions. An open-ended question was used at the end of the questionnaire in order to provide the respondents with the opportunity to give any further information which would be useful to the area of study. Questionnaires targeted mainly BCM, as well as risk and compliance managers since they are the ones responsible for business continuity and risk management within their organizations.

The questionnaire survey was followed by semi-structured interviews with three BCM managers from three Jordanian banks of different cultural backgrounds: local, foreign, and Islamic. Interviews were undertaken in order to provide a more in-depth understanding of BCM in Jordanian banks and in order to examine whether cultural differences influenced the practice of BCM. Two main themes were pursued in the interviews: (a) whether or not the cultural background of the bank influenced its BCM practice; and (b) the cultural factors influencing BCM and the wider adoption of BCM best practice in Jordanian banks.

# 5. Results

The findings of the survey are presented below.

#### a. Respondent profiles

11 banks responded to the questionnaire. Three respondents were BCM managers and eight were risk and compliance managers.

#### b. Firm specific characteristics

Organizational size was measured by number of employees. Respondents were requested to indicate the number of employees in their organization by choosing one of five bands: 1-50 employees; 51-250; 251-500; 501-2500; and over 2500. The responses obtained showed that two organizations (18.1% of

the sample) employed 51-250 employees; three organizations (27.2%) employed 251-500 employees; five organizations (45.4%) employed 501-2500 employees; and one organization (9.0%) employed more than 2500 employees (Figure 1).

# Figure 1 here

Respondents were also requested to choose one of five age related options as follows: 1-10 years; 11-20; 21-30; 31-40; and over 40 years of age. The responses obtained from the respective organizations revealed that two organizations (18.1% of the sample) were 11-20 years of age; four organizations (36.3%) were 21-30 years of age; one organization (9.0%) was 31-40 years of age; and four organizations (36.3%) were over 40 years of age (Figure 2).

# Figure 2 here

# c. BCM practice

Four areas of BCM practice were investigated: the use of BCM; the duration for which BCM had been practised; the groups responsible for BCM; and the extent to which respondents were committed to performing the range of BCM best practice.

The findings revealed that all the banks surveyed in Jordan used BCM as a way to manage organizational risk, as well as business disruptions. One respondent also stated that:

"BCM was used in order to enhance customer services, manage IT disruptions more effectively, and as a way of ensuring compliance to the regulations of the Central Bank of Jordan, the adoption of the ISO17799, and ensuring Basel II guidelines".

This result suggests that Jordanian banks were aware of the significance of BCM to their business and that BCM was an established part of the risk and disaster preparation of the banking sector in Jordan, whether from internal technology and system failures or external emergencies, such as market turbulence, changing customer demands, or terrorism.

Respondents were requested to indicate the number of years for which their banks had been using BCM. Three options were provided: less than 1 year; 1-5 years; and more than 5 years. The findings revealed that five organizations (45.4% of the sample) had used BCM for 1-5 years and six organizations (54.5% of the sample) had used BCM for more than five years. The fact that the majority of the banks in Jordan had been using BCM for more than five years is possibly due to the many disasters that took place at the beginning of the 21<sup>st</sup> century, such as the Y2K crisis and the 9/11 events. These changed the global perspective for managing organizational risk and business disruptions and provided a major boost to the use of BCM (Wong, 2007; Gallagher, 2003; and Alonso and Boucher, 2001).

Respondents were also requested to identify who took responsibility for BCM in their organizations by choosing one of five options: senior management; board of directors; BCM team; operational staff; and operational risk department. 72.7% of the respondents reported that senior management was responsible for BCM in their organizations; 18.1% reported that the board of directors was responsible for BCM; and only one organization reported that the operational risk department was responsible for BCM (Figure 3). This finding is consistent with those of a number of empirical studies conducted in the U.K. and world wide, such as those of Woodman and Hutchings (2010), Woodman (2008), Ernst & Young (2008), and Woodman (2007), in which it was found that senior management was responsible for BCM. This finding is in line with the views of those who recommended/proposed that BCM should be one of the responsibilities of senior management (Vallender, 2009; Gibb and Buchanan, 2006; Gallagher, 2005; Foster and Dye, 2005; and Herbane et al., 2004).

# Figure 3 here

On a five-point rating scale, in which 1 stood for 'not considered' and 5 stood for 'totally considered', respondents were also presented with the list of the 11 BCM-related literature-derived activities identified in Section 3 and were requested to specify the extent to which they considered each of these activities in their BCM practice (Table 1).

# Table 1 here

The results reveal that Jordanian banks used all of the potential activities in their practice of BCM. The mean values were found to be over four for all activities. In addition, one respondent cited:

"All of these activities were considered as part of our approach to BCM and that budgetary plans have been created for the training, testing, and updating of the business continuity plan".

# d. Size and age

There were no statistically significant differences found between Jordanian banks, in terms of the size of the organization, for any BCM activity (Table 2). This means that the practice of BCM in Jordanian banks was not determined by the size of the organization. The fact that financial organizations of all sizes have considered BCM to be important to their business was noted in China (KPMG, 2009). The reason why organizations of all sizes need to consider BCM is that the vulnerability of smaller organizations to business disruptions is further compounded by the fact that most of these organizations are supply chain partners to other larger organizations; hence, a small disruption in any of these organizations can result in a major loss to their larger partners (KPMG, 2009).

#### Table 2 here

There were no statistically significant differences found between Jordanian banks in terms of the age of the organization for any BCM activity (Table 3). This means that the practice of BCM in Jordanian banks was not determined by the age of the organization. This result is understandable since all banks are exposed to a wide range of risks arising from their business environments; consequently all banks need BCM in order to deal with such risks. Moreover, the entire banking sector has been subjected to a series of crisis incidents, including IT problems, terrorist attacks, financial scandals and reputation crises (Elliott et al., 1999). "Banking is a business of risk" (Al-Tamimi and Al-Mazrooei, 2007).

#### Table 3 here

#### e. Emerging practice: BCM in the Jordanian banking sector

The results above show that the Jordanian banking sector has adopted a wide range of BCM practices. Overall, the results suggest that there is a shift from standard/basic practice to best practice. The findings suggest that Jordanian banks realize that they vulnerable to a wide range of risks that have to be confronted in order to build resilience and sustain business operations. This is consistent with the findings of Woodman and Hutchings (2010), Woodman (2008), and Woodman (2007) in which it was found that respondents from U.K. organizations were aware of the risks surrounding the banking sector, and therefore used BCM. Moreover, the findings indicate that BCM is moving from being an operational and technical matter to a more enterprise-wide process due to the fact that the training, testing, maintenance, and updating activities were considered. This is in line with the views of Elliott et al. (2010) and Herbane et al. (2004) who have argued that BCM should be an enterprise-wide process. Overall, the above findings indicate that the situation in Jordan- compared with the situation worldwide that has been introduced in section 3.2, and according to the guidelines of professional BCM practice that was introduced by Hiles (2011) - is improving in terms of the tendency to adopt BCM best practice. Nevertheless, this does not mean that Jordan is a leading country in terms of the adoption of BCM best practice in its banking sector. For instance, none of the banks included in this study reported having achieved international certification or recognition in terms of BCM best practice.

#### f. Cultural background

Despite the fact that the findings of the questionnaire revealed that all the banks surveyed used a wide range of BCM practices, the findings of the interviews revealed that there were a number of cultural factors that have influenced the practice of BCM, as well as the wider adoption of BCM best practice in Jordanian banks of different cultural backgrounds. Subsequently, a possible impact is that banks in Jordan may have reported the adoption of various BCM practices but lack efficient practical implementation of these practices. The respondent from the local bank stated:

"...the factor that has the greatest influence on the adoption of BCM best practice in Jordanian banks is culture, organizational culture in particular, i.e. the cultural background of the bank".

#### f.1. Dominant cultural trends within the banks interviewed

Three main cultures were examined in this research: local; Islamic; and foreign (European). The respondent from the local Jordanian bank reported:

"... We cannot operate in isolation from local traditions and the larger context of Arab culture, not just in terms of BCM, but also in terms of many other processes and banking services".

The respondent from the Islamic bank stated:

"The majority of our operations and banking services, including many aspects of BCM, are conducted within an Islamic framework and according to Islamic principles and guidelines...such principles are considered as best practice in our bank".

Interviews revealed that in the local bank, the Arab culture and local traditions did not just affect the practice of BCM, but also many other banking services and operations, such as international transactions and corporate communications. This suggests that Arab culture has a considerable influence on Arab organizations, including financial institutions. This is consistent with the views and findings of a number of researchers, such as Ababaneh (2010), Sabri (2004), Al-Rasheed (2001), and

Hofstede (1991). Islamic principles and guidelines were found to be the main driver for the majority of operations and banking services in the Islamic bank, including many aspects of BCM practice.

The situation in the foreign bank, however, was found to be different than the local and Islamic banks.

The respondent from the foreign bank stated:

"International standards are considered to be the main driver for many aspects of BCM practice in our bank, especially the BS29555, ISO17799 and Basel II guidelines".

Overall, the above findings indicate that within the local bank, local traditions and Arab culture were the dominant cultural trends which formed the context in which many banking operations and services, including BCM, were undertaken. In the Islamic bank, Islamic culture was dominant. In the foreign bank, there was a focus on international standards and guidelines which formed the context within which BCM is practiced.

# f.2. Cultural factors affecting BCM in Jordanian banks

Since culture was found to be the most influential factor on the adoption of BCM best practice, the interviews aimed at providing a more in-depth insight of what constitutes culture in Jordanian banks. The results of the interviews identified a number of factors relating to culture which have influenced the practice of BCM and which seemed to hinder the wider adoption of BCM best practice. If the influence of such factors is reduced or eliminated, BCM will have a better environment in which to succeed and evolve. Reducing the influence of these factors is also likely to speed up the adoption of many aspects of BCM best practice.

Amongst the factors identified were: gender; CBJ and government-imposed restrictions; nature of corporate communications; level of financial openness; liberalization of banking operations and services; organizational structure and bureaucracy; geographical location of the branches of the bank in Jordan; religion; and the British Common Law legal tradition of Jordan. Nevertheless, the above factors may not represent an exhaustive list of all the cultural factors that influence the practice of

BCM in Jordanian banks, but rather those identified by the interviews. These factors varied in terms of their influence on BCM practice in Jordanian banks.

#### f.2.a. The local bank

It was found that in the local bank, the most influential cultural factors were: CBJ and government-imposed restrictions; the legal tradition of Jordan; organizational structure and bureaucracy; and the geographical location of the branches of the bank. The following discussion provides a more in-depth insight on the influence of these factors.

CBJ and government-imposed restrictions and regulations, as well as the legal system of Jordan were found to obstruct/slowdown performing some key BCM activities and subsequently hinder the wider adoption of some aspects of BCM best practice in Jordanian banks. The respondent from the local bank stated:

"CBJ and government-imposed restrictions and regulations, as well as the traditional legal system of Jordan are considered the main factors relating to culture that prevent the wider adoption of BCM best practice in Jordanian banks".

This is because some banking operations and services offered are tightly controlled by the CBJ and/or traditional laws and legal controls. Such traditional restrictions and legal controls were found to affect the range and quality of services offered by the bank in general and BCM practice in particular. Examples include: intensive and continuous monitoring, supervision, and auditing of BCM practices. Such practices are likely to reduce the individual/personal contribution and involvement in BCM and subsequently reduce innovation levels. They will also help to sustain old and traditional practices and hinder the adoption of novel ideas and international standards. As an example of CBJ and government-imposed regulations, the respondent from the local bank reported:

"...the Central Bank of Jordan makes it compulsory for all banks in Jordan to prepare their business continuity plans using the Arabic Language, rather than using the original language which requires translation from original languages".

#### Moreover, the respondent reported that:

"...any development or updating for the business continuity or disaster recovery plans should be reported to the Central Bank of Jordan; otherwise, or, if any bank develops its own business continuity plan without complying with the guidelines and regulations of the CBJ, it will be sentenced and subsequently might lose its licence".

Furthermore, organizational structure and bureaucracy were also found to influence the performance of the financial system negatively, as well as key BCM activities. As was discussed in section 2, traditional Arab management systems and organizational structures lack cohesiveness and internal integration. Interaction between different business units and management levels is based on hierarchy. Moreover, in many cases, organization charts do not exist. This causes lack of clarity in relation to employees' and managers' roles and responsibilities and often ends up in poor handling of tasks and poor decision making (Ababaneh, 2010; Al-Rasheed, 2001). Furthermore, internal communications are controlled by lines of authority (Sabri, 2004). Overall, these factors were found to affect BCM best practice due to the limitations they cause to crisis communications, crisis response and emergency management, preparation of business continuity plans, and the development of continuity strategies.

The geographical location of the branches was also identified as a factor that affects the practice of BCM in the local bank. The respondent from the local bank stated:

"The geographical location of branches limits the availability of technology, communication systems, skilled people, and training facilities and equipment necessary for BCM best practice, as well as the availability of transportation services. These factors affect BCM practice negatively, especially in terms of developing recovery alternatives, training, testing, and sharing skills and knowledge".

# f.2.b. The Islamic bank

In the Islamic bank, the cultural factors that affected the BCM process, as well as the wider adoption of some aspects of BCM best practice, negatively were: level of financial openness and liberalization of banking operations and services; gender; religion; and the nature of corporate communications. The following discussion provides a more in-depth insight on the impact of these factors.

The findings of the interviews revealed that a total financial openness to Western and global financial markets and institutions and the liberalization of all banking operations and services are rejected. Many procedures adopted by Western and international banks are often adjusted in order to suit Islamic principles and the local business environment. The findings of the interviews showed that the low level of financial openness and liberalization of banking operations and services reduces the opportunity to adopt international standards and procedures and reduces the level of cooperation with regional and international banks. This affects BCM and reduces the wider adoption of BCM best practice. A total financial openness seemed to be risky to the Islamic bank and therefore is normally avoided, as was explained by the respondent. This is consistent with the views of Al-Ajlouni (2004) who argued that financial openness and the liberalization of banking services and operations expose many Islamic banks to a wide range of new risks and global forces.

Religion, gender, and the nature of corporate communications were found to be interlinked within the Islamic bank and were found to influence the wider adoption of BCM best practice. Interaction and communications (relationships) between males and females are governed by Islamic principles. Females are not allowed to interact closely with males. Moreover, the participation and involvement of men in various business activities is more dominant. Subsequently, limited interaction and communications between males and females in the work place affects BCM best practice, especially in cases where male and female interaction is required, such as training and testing the business continuity plans, as well as the development of BCM teams.

Overall, it was noted that within the Islamic bank, BCM best practice was very limited. Nevertheless, the respondent seemed to show a tendency towards adopting international standards; however, limitations seemed to exist. This may be a result of the limited openness to the world's financial markets and institutions, as well as the other factors discussed above. Much remains to be implemented in the Islamic bank in relation to BCM best practice.

# f.2.c. The foreign bank

The interview findings revealed that in the foreign bank, the most influential factors were: the legal tradition of Jordan which traces back to its British background and CBJ and government-imposed restrictions. The respondent stated:

"We operate side by side with our headquarters abroad... we follow the same procedures of our headquarters... the BS29555, ISO17799, and Basel II guidelines are considered the main drivers for BCM in our bank... however, the traditional legal system of Jordan and the legislations of the CBJ sometimes restrict our operations and banking services which subsequently affect some aspect of BCM best practice".

Based on the comments of the respondent from the foreign bank, it was noticed that, in some cases, traditional banking regulations seem to be incompatible with modern and internationally recognized regulations and practice. These regulations slow down the wider adoption of BCM international standards and best practice. These regulations are compulsory and have to be implemented regardless of the cultural background of the bank, that is to say; local, Islamic, or foreign. This cultural issue seemed to be the major concern of the foreign bank operating in Jordan.

# 6. Conclusions

There are relatively few empirical studies on the use and practice of BCM in financial institutions, and banks in particular, and they focus mainly on the banking sector in the U.S. and Europe. The contribution made by this research is that it has provided insight on the use and practice of BCM in the Middle East, and Jordan and in particular on the cultural factors influencing the wider adoption of BCM best practice. No previous studies have investigated the influence of the unique features of Arab culture on BCM.

The findings suggest that the banking sector in Jordan is moving towards BCM best practice. Yet, none of the banks investigated has achieved international certification in terms of BCM best practice. Much is still to be implemented in terms of BCM best practice in the Islamic bank. Overall, the results indicate that banks in Jordan are aware of the risks and volatility of the regional and global business environments and that banking is a business of risk.

BCM practice in all Jordanian banks is independent of size and age of organization. However, the cultural background of Jordanian banks and cultural differences in their operations have influenced their practice of BCM. A number of factors relating to culture were identified. These were: gender; CBJ and government-imposed restrictions; nature of corporate communications; level of financial openness; liberalization of banking operations and services; institutional environment and bureaucracy; geographical location of the branches of the bank in Jordan; religion; and the legal traditions of Jordan.

This study has investigated the extent to which Jordanian banks use BCM. However, it has not addressed other aspects of BCM practice, such as the relationship between BCM and risk management, the relationship between BCM and Basel II, and the detailed components of the continuity plans. Such issues were beyond the purpose of the study; but they are areas for further research. In addition, the study could be replicated usefully in geographical contexts in the Middle East, where both national and organizational culture are similar to that of Jordan.

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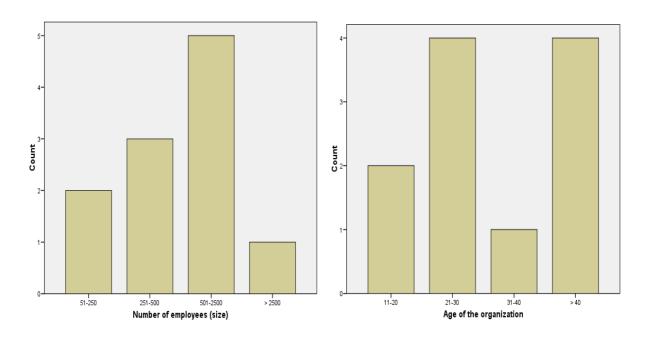


Figure (3): Responsibility for BCM

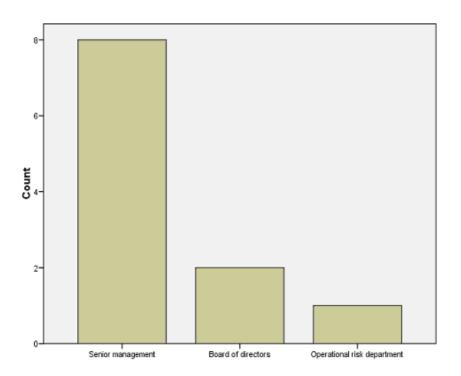


Table (1): BCM activities and corresponding mean values: rank order

BCM activities	Valid N	Mean*
Project planning	11	4.64
Developing backup and data recovery strategies	11	4.64
Developing disaster recovery plan	11	4.64
Performing risk assessment process	11	4.55
Performing business impact analysis	11	4.55
Developing business continuity plan	11	4.55
Periodic testing of plans	11	4.45
Periodic updating of plans	11	4.45
Creating teams and assigning roles and responsibilities	11	4.36
Periodic maintenance of plans	11	4.36
Periodic training of plans	11	4.09

<sup>\*</sup>The mean is an average of a scale where 1 stood for 'not considered' and 5 stood for 'totally considered'

**Table (2): Chi-square test:** differences in the practice of BCM in Jordanian banks in terms of size of organization

BCM activities	Exact Sig.
Project planning	.798
Creating teams and assigning roles and responsibilities	.818
Performing risk assessment process	1.000
Performing business impact analysis	1.000
Developing backup and data recovery strategies	.818
Developing disaster recovery plan	1.000
Developing business continuity plan	1.000
Periodic training of plans	.210
Periodic testing of plans	.286
Periodic maintenance of plans	.364
Periodic updating of plans	1.000

**Table (3): Chi-square test:** differences in the practice of BCM in Jordanian banks in terms of age of organization.

BCM activities	Exact Sig.
Project planning	.176
Creating teams and assigning roles and responsibilities	.503
Performing risk assessment process	.420
Performing business impact analysis	.420
Developing backup and data recovery strategies	.091
Developing disaster recovery plan	1.000
Developing business continuity plan	1.000
Periodic training of plans	.782
Periodic testing of plans	.636
Periodic maintenance of plans	.503
Periodic updating of plans	.636