

جمعية البنوك في فلسطين  
Association of Banks in Palestine



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Master Program in Business Administration  
Operational Risk In Light Of Basel II Requirements:  
A Study of its Nature and Management in the Case of  
Banks Operating in Palestine  
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## ملخص البحث

تعتبر المخاطر التشغيلية من أهم المخاطر المصرفية خصوصاً بعد التطورات التكنولوجية في الأنظمة المصرفية، والأنشطة الضخمة، والعولمة، وتعتبر الإدارة غير السليمة وضعف الرقابة على المخاطر التشغيلية والمخاطر الأخرى من أهم الأسباب التي أدت إلى تزايد الأزمات المالية في البلدان النامية وانهيار العديد من البنوك الدولية في مختلف أنحاء العالم، مما يتطلب من المصارف المحلية التعامل مع هذه القضية وفقاً للمعايير العالمية وخصوصاً مقررات بازل وتعليمات سلطة النقد الفلسطينية، كما أن من الضروري تقييم درجة امتثال هذه البنوك المحلية للتحوط ضد المخاطر التشغيلية. تهدف الدراسة إلى تحديد المخاطر التشغيلية في البنوك العاملة في فلسطين، وطرق احتساب هذه البنوك لمتطلبات رأس المال اللازمة لمخاطر التشغيل، وتحديد نطاق المخاطر التشغيلية التي تهدد البنوك العاملة في فلسطين، إضافة إلى قياس مدى التزام البنوك بتعليمات سلطة النقد الفلسطينية وفقاً لمقررات بازل II المتعلقة بالمخاطر التشغيلية.

تعتبر الدراسة إضافة جيدة للمعرفة حيث أنها تضيف معلومات حديثة عن مدى التزام البنوك العاملة في فلسطين بالتحوط ضد المخاطر التشغيلية وكيفية إدارتها والحد من مخاطرها.

أكدت الدراسة في نتائجها أن هناك التزام كبير من البنوك العاملة في فلسطين بتنفيذ تعليمات سلطة النقد الفلسطينية المتعلقة بالمخاطر التشغيلية، ولكن من ناحية أخرى لم يكن هناك التزام بتنفيذ مقررات بازل II، وذلك لأن سلطة النقد الفلسطينية لم تفرض على البنوك التحوط للمخاطر التشغيلية عند احتسابها لقاعدة رأس المال.

## Abstract

Operational risk is considered one of the most serious and even critical banking risks especially in the wake of technological advancement in the banking systems, huge activities, and globalization. Inadequate management and poor control of the operational risk and other risks are the primary causes of the increasing financial crises in countries and were behind the collapse of many international banks around the world. Since local banks are required to deal with this issue, according to international standards and the Palestinian Monetary Authority (PMA)'s instructions, it is necessary to assess the degree of compliance with operational risk issues.

This study sought to identify the operational risks in banks operating in Palestine and the methods of calculation of the capital requirements for operational risks. The study also sought to identify the scope of operational risks that threaten banks operating in Palestine.

In addition, the study examined the capability and commitment of banks to cope with PMA's instructions according to Basel II regulations and all those related to operational risks.

This study is a good addition to figure out where it adds new information on the commitment of the banks operating in Palestine to hedge against operational risks and the ways of managing and reducing such risks.

The study found that there was a high commitment by banks, operating in Palestine, to PMA's instructions relating to operational risk. However, there was no commitment to the implementation of Basel II because the PMA did not impose a hedge on banks when calculating the capital base for operational risk.

## 1. Introduction

Risk management is considered one of the highly researched topics in business and the economic world especially in banking and financial sectors. Researchers have found that there is a high risk return trade off in the business world. More risk leads to more profit. This is the first economic principle that is taught in business, and the banks, as financial institutions introducing services, aim to maximize profit for their stakeholders like customers, employees, and shareholders. They are all surrounded and affected by enormous kinds of internal and external risks.

Risk should be continually re-assessed particularly in integrated change control activity, when working with resources, or dealing with risk management. Reassessment of these risks should be made continually and efficiently particularly when dealing with the resources as these affect profits and costs of banks. Issues include circumstances affecting the continuity of bank's work and its possible vulnerability to risks and threats.

Therefore, banks prepare risk management plans to eliminate or decrease threats before they take place through different policies and techniques such as avoidance, transfer, deflection, allocation, mitigation and acceptance of risk if it has a little impact and frequency. Also the risk management plan should make sure that the opportunities happens, increase the probability and/or impact of opportunities by exploiting, sharing, enhancing, and dealing with other potential risks which cannot be eliminated . Therefore, there is a need for preparation of an emergency plan. Banks usually prepare contingency plans, or fallback plans , if contingency plans are not effective .

Operational risk is becoming increasingly important as more and more sophisticated products and their use occur in the financial institutions. Therefore, understanding risk environment in operations functions and its impact on operational risk is centrally important ( Loader, 2013).

According to Arunkumar (2005), banks manage risk, not avoid it because risk drives financial behavior. Financial institutions, therefore, should manage the risk efficiently to survive in the market in the long run. The effective management of operational risk is a critical component of comprehensive risk management essential for long-term success of banks.

### 1.1 Statement of the problem

Banks interact with risk and this requires/ expects them to take adequate measures and precautions to manage and control these risks according to the best knowledge of international regulations and optimal standard policies in order to mitigate potential risk exposures or avoid them.

Operational risk is considered one of the most critical banking risks especially in the wake of technological advancement in the banking systems, huge activities, and globalization. Inadequate management and control of the operational risk and other risks are the primary causes of the increasing financial crises in countries and collapse of many international banks around the world. Since local banks are required to deal with this issue, according to international standards and the PMA's instructions, it is necessary to assess the degree of compliance with these operational risk issues.

### 1.2 Purpose of the study

The purpose of study was to identify the operational risks in banks working in Palestine and the methods of calculation of the capital requirements for operational risks. It also aimed at identifying the scope of operational risks threatening banks operating in Palestine. In addition, the study examined the capability and commitment of banks to cope with the PMA's instructions according to Basel II regulations to those related to operational risks.

### 1.3 Need for the Study

Banks interact with two categories of risks: business risks and control risks. Business risks involve risks arising out of the operations of the bank, and they consist of eight types of risks namely capital, credit, market, earnings, liquidity, business strategy and environmental risk, operational risk and group risk. Control risks measure the risks arising out of any lapses in the control mechanisms such as the organizational structure and the management and the internal controls that exist in the bank

controls. Thus, top management of banks should attach considerable importance to improvement of the ability to identify, measure, monitor and control of the overall level of operational risks.

Risk management plans in the banking sector cover all techniques and management tools required for measuring, monitoring and controlling risks. The spectrum of models and processes extends to operational risk.

Banks in Palestine must be aware of the significance of configuring an internal environment in accordance with the best practices and international standards in managing and controlling banking risk in general, with emphasis on operational risk, due to implementation of the Basel II accords.

Basel II accords, introduced in 2001, made a major impact on the banking supervision by introducing a new concept in risk management, and capital requirements for facing operational risks. The Basel committee reflected the ongoing debate between its members, banks, and the supervisory agencies throughout the world.

## 1.4 Definitions and Key Terms Used

- Risk is an uncertain event or condition that, if it occurs, has an effect on bank's objective (PMA 8/, 2008).
- Operational Risk is the risk of loss arising from various types of human or technical errors; it involves breakdown in internal controls, personnel and corporate governance leading to error. Examples of operational risk are fraud, and performance failure, and compromise on the interest of the bank resulting in financial loss( PMA, 8 2008/)
- Basel II, a committee of banking supervisory authorities, is located at the Bank for International Settlements (BIS) in Basel, Switzerland and was established by the central bank governors of the Group of Ten countries in 1974. It provides a forum for regular cooperation on banking supervisory matters. Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide, and frame guidelines and standards on capital adequacy (Bank for International Settlements, 2009).

## 1.5 Research Questions

This study tried to find answers to the following questions:

- 1- What is the analytical framework that is used to quantify operational risk exposure?
- 2- Is there a risk management plan and strategy adopted by boards of directors in banks operating in Palestine? And how do those bank managements manage the different risks in the bank?
- 3- To what extent are banks operating in Palestine in compliance with PMA and Basel committee standards to manage risk?
- 4- Is there a difference between Palestinian banks and foreign banks, operating in Palestine, in facing and managing risks?
- 5- What are the main limitations and challenges facing banks operating in Palestine to manage risks?

## 2. Theoretical Framework and Literature Review

### 2.1 Introduction

All banks are subject to operational risks, and most of the top managements in the banks are acutely aware of the potential impact of financial risks, namely credit risk and market risk, but they still less well understand the operational risk importance and significant impact.

According to Arab Saudi Monetary Management (2009), operational risk represents pure risk in which there are only two possible outcomes: loss or no loss. Whereas financial risks may lead to financial rewards, operational risks involve no opportunity for gain. In addition, operational risks, unlike financial risks, are purely human in nature. Crime, losses, litigations, and adverse regulations are purely human in origin and may have no direct relationship with conditions in global financial markets.

Due to the increasing interest in the subject of operational risk, especially in the last few years due to financial crises faced by many banks in the world and the studies which found that there was an obvious weakness in risk management and operational risk management in particular, the researcher has reviewed the previous studies in order to explore the views of researchers and their analyses of the variables that affect risk, and their recommendations. The researcher has built on what has been reached in the previous studies in this area. He has also avoided repetition, and tried to add value and enrich the quality of the issue and increase the level of knowledge in it. This research covers definitions of risk and its types and management, operational risk and its categories, principles of operational risks management, operational risk measurement procedures, the Basel Committee and its problems, the banks operating in Palestine and their commitment to / compliance with Basel II and some related studies. It then concludes with a number of recommendations.

### 2.2 Definitions of Risk

There are many definitions of "Risk" depending on its effect, type or its relevance to the institutions. Risk can be seen as related to the probability of uncertain future events.

According to Gitman (2009), risk is considered a chance of financial loss, and it is used with the term "uncertainty" to refer to the variability of returns associated with a given asset.

Henring (2004) looked at risk management as a way to optimize the yield of the budget between the yield level and the degree of risk.

The ISO 31000 (2009) defined risk as the effect of uncertainty on objectives. In this definition, uncertainties include events that may or may not happen, and uncertainties caused by ambiguity or a lack of information. It also includes both negative and positive impacts on objectives.

The most convenient definition of risk, according to Basel Committee on Banking Supervision, is any volatility in the market value of the institution.

Generally, most literature review looks at risk as the bank's potential exposure to unexpected or unplanned losses, or fluctuations in the revenue expected from the investment or a particular activity (PMA, 2008). The PMA asked the banks operating in Palestine to manage and control risk effects to avoid faltering bank or bankruptcy.

### 2.2 Risk management

Basel II stressed that the issue of financial risk management is the most important topic that concerns bankers at the global level, particularly in the wake of successive financial crises and the collapse of banks which hit many countries in the last decade. These crises have been reflected on the trends of international institutions and have taught us that the most important bank crises are the increase of risks which the banks are vulnerable to and their failure to manage them.

Operational risk assessment depends on the technology used by the bank; the success in controlling and monitoring operational risk depends on the efficiency of the banking system in the distribution of financial products and services and the internal support systems that provide efficient operations (Koch & Scott, 2005).



The Arab Saudi Monetary Management (2009) stated that one of the most effective forms/ ways of minimizing a bank's exposure to operational risks is through the implementation of a strong program of internal control.

Bauer & Ryser (2004) concluded in their study that the use of hedging strategies is an important tool in reducing the overall risk of the bank; its impact on maximizing property rights lies in the importance of the bank's risk management strategies. Within it a group of hedge strategies modify the probability distributions of the future of assets.

According to Karasna (2010), the various types of risks faced by banks require adoption of department measures and a comprehensive risk management policy and reporting, ensuring availability of appropriate control by the board of directors and senior management in order to identify, measure, monitor and control risks and keep adequate capital to reduce these risks if necessary.

Diksha and Agarwal (2009) argued that risk management in banking designates the entire set of risk management processes and models allowing banks to implement risk-based policies and practices. They cover all techniques and management tools required for measuring, monitoring and controlling risks.

They added that banking failures were numerous in the past, both in India and internationally. Banking failures make risk material and convey the impression that the industry is never far away from major problems. Regulators have been very active in promoting pre-emptive policies for avoiding individual bank failures and for helping the industry absorb the shock of failures when they happen. They emphasized in their study that risk based practices are so important, from the banks' point of view, because banks are 'risk machines'; they take risks and transform them. They embed them in banking products and services. Banks take risk-based decisions and then monitor risks once the decisions are made. There are powerful motives to implement risk-based practices to provide a balanced view of risk and return.

Hashad (2005) maintained that the banks must apply the instructions and recommendations, issued by the Basel Committee on Banking Supervision, to be able to run bank risks properly and meet the requirements of the Basel-II in a sound manner. The Committee has identified those documents in the second axis of the Basel-II. These documents are one part of the management of various banking risks, while the other part is the internal and external oversight of banks.

### 2.3 Types of banking risks

Banks are compelled to encounter various kinds of financial and non-financial risks. The various risks that a bank is bound to confront can be divided into two categories, namely business risks and control risks (Diksha & Agarwal, 2009).

Business risk involves the risks arising out of the operations of the bank, the business it is into and the way it conducts its operations. It consists of eight types of risks, namely capital, credit, market, earnings, liquidity, business strategy and environmental risk, operational risk and group risk.

Control risk measures the risk arising out of any lapses in the control mechanisms such as the organizational structure and the management and the internal controls that exist in the bank. Controls risk further consists of internal controls, management, organizational and compliance risk. These risks are highly interdependent and events that affect one area of risk can have effects on a range of other risk categories. Thus, top management of banks should attach considerable importance to improve the ability to identify measure, monitor and control the overall level of risks undertaken.

Gitman & Zutter (2009) divided risks into two main category. The first is systematic risks which can't be controlled or eliminated, but can be lived with and their negative effects can be mitigated through diversification of the investment portfolio. These are market risks, credit risks, operational risk, country risks and political risks, legal risks and environmental risks.

The second type of risks is called non-systematic risks or business risks which are related to the banks themselves, and this kind of risks can be avoided or treated. These include mismanagement, and poor investment, and can be avoided by developing appropriate policies, controls and procedures/ measures governing the work of management and selecting qualified and experienced and rehabilitated staff and by improving internal control systems and commitment to the foundations of good governance.

The PMA has divided risks faced by banks into four main categories: financial risks, business risks, country risks, and operational risks (PMA,2008).

## 2.4 Operational risk

### 2.4.1 Operational risk definition

Operational risks include unlimited number of risks, so the administration must define its own operational risks clearly. According to Diksha & Agarwal (2009), operational risk is the loss arising from various types of human or technical errors.

Operational risk arises as a result of changes in operating expenses distinctively from what is expected and result in a decrease in net income and the value of the property. Some banks do not have control over direct costs (Koch & Scott, 2003) .

Basel (2004) stated that operational risk involves breakdown in internal controls, personnel and corporate governance leading to error, fraud, performance failure, and compromise on the interest of the bank, thus resulting in financial loss.

### 2.4.2 Types of operational risk

Banks operating in Palestine are vulnerable to operational risks like other banks in the world and they range from the risks of implementation and management processes to human elements, automated systems and events related to the external environment.

A sound practices paper (2003) was prepared by the Basel Committee; the PMA (2008) divided operational risks into seven categories:

a) Internal fraud: This includes actions aimed at cheating or misuse of property or circumventing of the law and regulations, or policies of the bank drawn by bank officials, and employees.

b) External fraud: This includes actions aimed at cheating or misuse of property or circumventing of the law drawn by a third party.

c) Work practice and job security: Events are associated with staff relations such as compensation claims from employees resulting from segregation and discrimination in the treatment and unfair dismissal from office and violations of the rules of safety and security.

d) Practices relating to customers, products and business: Losses resulting from failure are intentional, or are due to negligence in the fulfillment of professional obligations towards clients.

e) Damage to physical assets: Losses or damages incurred by physical assets are due to a natural disaster or other events.

f) System failure and interruptions: Losses or damages incurred are due to system failure and the imbalance in the system, such as computer systems and communications systems.

g) Implementation and management of operations: Losses resulting from failure to implement the transactions or in the management of the operations and relationship with other parties.

### 2.4.3 Principles of operational risks management

According to Epetimehin (2013), operational risk management protects and enhances shareholders' values in the financial institutions, and it has its own structure, processes, tools, statistics and risk mitigation strategies .

Hussain (2013) stated that operational risk can only be managed on an enterprise wide basis as it includes the entire process of policies, culture, procedures/ measures, expertise and systems that an institution needs in order to manage all the risks resulting from its financial transactions. He believed that in order to manage market and credit risks effectively, it is necessary to have a skilled staff, technical and organizational infrastructure, and monitoring and control systems. All of these are components of operational risk, and that means that an integrated risk management approach needs to focus on operational risk.

Basel Committee on Banking Supervision BCBS (2003) issued a paper containing ten principles to help banks and regulatory authorities to determine the basis of sound management of operational risks; it also divided the ten principles into four main sections. The first is to create the right climate for risk management, and the second is risk management, controlling and monitoring. The third is the role of the regulatory authority, and the fourth is the importance of disclosure. These principles help provide the overall framework for the management and control of operational risk and ensure effective control, and these principles serve both the banks and the regulatory authorities.



## 2.4.4 Operational risk measurement procedures

Epetimehin (2013) pointed out that most accounting firms have awareness of operational risk as a separate risk category, and have begun to include in their annual reports notes on risks or lessons learned from bank risks.

Many financial institutions monitor the operational performance indicators, analyze the experiences of loss and monitor the audit and regulatory ratings, but a few measure and report their risks on a regular basis, and there is still no clear mathematical or statistical relationship between individual risk factors and size of operating losses.

Karasna (2010) highlighted three methods for operational risk measurement stated in Basel II:

### 1) Basic Indicator Approach

Calculating capital requirements is based on a single indicator, which is the total income for the last three years, where access to the necessary capital is through multiplying the total income in a fixed ratio identified by the Basel Committee as 15%.

### 2) Standardized Approach (SA)

Capital requirements are calculated based on several indicators (gross income business units). They are classified sources of exposure to risk by business units and by banking services provided (Business Lines).

### 3) Advanced Measurement Approach (AMA)

Capital requirements are determined in accordance with the present method of measuring exposure to operational risks through internal measurement system used by the bank. This approach needs the consent and approval of the regulatory authority. According to this methodology, banks rely on statistical data based on previous losses.

## 2.5 The Basel Committee

Basel Committee on Banking Supervision was established in 1974 by a decision of the central bank governors of the 12 countries of the G10 and Switzerland and Luxembourg to be an independent commission in the framework of the Bank for International Settlements. The Committee aims to develop standards for banking supervision and work on the international level so as to maintain stability in the banking sector and financial markets in general.

In 1988, the Basel Committee on Banking Supervision issued a convention (Basel I) which required banks to hold a minimum capital adequacy ratio (8%) of the value of risk-weighted assets. Then in 1996, the Basel Committee on Banking Supervision added new instructions asking the banks to keep an adequate capital to hedge market risk, and to meet the impact of risks arising from price fluctuations in the financial markets, interest rates and other market factors on financial assets, whether inside or outside the budget.

In 2001, the Basel Committee developed an issuance of Basel II. It conducted substantial amendments to the Convention (Basel I) by focusing on risk management in a proper way to cope with banking crises faced by banks. It used an advanced mechanism of calculating credit risk and added a new item of risk due to the banks' hedged adequate capital to face it, namely operational risk.

Also in 2003, another document, entitled "Good Practices for Operational Risk Management", was issued. Implementation took effect in member countries in 2006. The Basel II Accord put further pressure on banks requiring them to also hold capital to offset operational risk that the Committee expects on an average, constituting approximately 20 percent of the overall capital requirement.

Basel II is being proposed to introduce greater risk sensitivity. The new accord provides a spectrum of approaches from simple to advanced methodologies for the advancement of both credit and operational risks in determining capital levels.

The new accord (Basel II) is built around three pillars

Pillar I: Minimum Capital Requirement

Pillar II: Supervisory Review

Pillar III: Market Discipline (transparency and disclosure to the public)

## 2.5.1 Problems and difficulties with Basel II

Epetimehin (2013) pointed out that the new Basel II regulation is structured on three pillars (financial requirements in accordance with the actual level of risk assumed by insurers, internal control mechanisms and market transparency and discipline). These regulations are expected to increase the need for an effective management of operational risk and the development and implementation of methodologies for its analysis.

According to Epetimehin (2013), there is a need for a capital that faces the possible loss of operational risk. The classical technique of modeling Value at Risk (VaR) gets closer to the solvency goals since it is a simple, reliable, well known and easily applicable tool. VaR model is also a reference for Basel II for the actuarial financial analysis of the operational risk.

According to Carolyn (2005), the most problematic of the Basel II capital adequacy requirements is requiring provision for operational risk (OR) as distinct from credit and market risk. In her study, she discussed the approach, the difficulties that banks were experiencing with operational risk, particularly in the construction of a database. She believed that many smaller banks and emerging nations might not be able to use the sophisticated approaches and would suffer from a competitive disadvantage. In view of drawbacks in the simpler approaches, such as a lack of a correlation of operational risk and revenue, other indicators such as the standard deviation of efficiency measures were suggested.

Chakravorthy (2003) predicted that the banks in India would not meet a 2006 deadline for implementation of the revised Basel Capital Accord and would need at least two additional years to comply with the new international banking rules.

Arunkumar and Kotreshwar (2005) argued that the Basel II accord was a challenge to Indian banks. Indian Banks were conceptually and academically ready to adopt the new norms. It would involve shift in direct supervisory focus away to the implementation issue, and also there are lots of difficulties and issues in its implementation in the Indian context. These difficulties include availability of historical data, higher risk rights for sovereign, cost factor, technological upgradation, diversified products, legal and regulatory guidelines, higher risk weight to small and medium enterprises, credit rating, etc.

Buehler & Vijay & Gunnar (2004) studied the details of Basel II, and the willingness of some banks to implement the convention at the end of 2006, and especially the first axis of the boundary minimum capital requirements. They concluded that a small number of banks began to provide compliance with these requirements and provide comprehensive programs and contribute to the development of classification systems specific to the banks. They also pointed to the techniques and tools of relievers' operational risk and the importance of having a plan for business continuity and crisis management to deal with disasters and unforeseen events.

Beblawi (2006) studied the arrangements the Arab countries have made for the application of Basel II. His study relied on a questionnaire prepared in 2005 by the Arab Committee on Banking Supervision in the Arab Monetary Fund. The questionnaire was administered in 15 Arab countries: Libya, Egypt, Morocco, Mauretania, Yemen, the United Arab Emirates, Bahrain, Algeria, Saudi Arabia, Sudan, Syria, Palestine, Qatar, Kuwait, and Lebanon.

The study showed that most central banks in the Arab countries (including Palestine) had announced of their intention to apply the Basel Committee II. Also, it was found that the central banks in the Arab countries had prepared plans including a preparatory study for the application of Basel II. Finally, the study concluded that there was a clear need for rehabilitation and training of cadres of the regulatory authorities and banks in the Arab countries.

## 2.6 Banks operating in Palestine

The number of banks operating in the Palestinian territories by end of 2011 was 18. However this number has dropped to 17 banks after the merger of the Bank of Al-Rafah and the Arab Bank for Investment in one bank called The National Bank. The number of branches and offices is 226 as opposed to only two banks at the time of establishing the Palestinian Monetary Authority in 1994 (Bank of Palestine and Cairo Amman Bank) and 14 branches only (Journal of Banks in Palestine, 2012).

There are also eight native Palestinian banks: Bank of Palestine, Palestine Commercial Bank,

Palestine Investment Bank, Arab Islamic Bank, the Bank of Jerusalem, Palestine Islamic Bank, the National Bank. In addition, there are nine foreign banks operating in Palestine: Cairo-Amman Bank, the Arab Bank, Bank of Jordan, Egyptian Arab Land Bank, Commercial Bank of Jordan, Jordan Ahli Bank, the Housing Bank for Trade and Finance, Jordan Kuwait Bank, Union Bank and HSBC Bank (Journal of Banks in Palestine, 2012).

The PMA (2008) decided that all banks operating in Palestine had to establish competent departments to manage risk management and these departments should be under the direct responsibility and subordination of the bank's board of directors.

In 2011, the PMA issued instructions to all banks operating in Palestine to abide by the basic four principles of risk management: providing a suitable environment for the management of risk, working according to procedures and proper controls for granting credit, providing management prudent credit and procedures for measuring, monitoring and verifying the adequacy of oversight and control credit risk and control.

### 2.6.1 Commitment of the banks (operating in Palestine) to Basel II

Most banks operating in Palestine are comparably similar in sophistication and complexity in their activities and geographical distribution and therefore, the operational risks faced by different banks vary in the level and breadth of the risks faced by global banks which have international widespread and are characterized by a high degree of sophistication and complexity in their activities and operations.

According to Abdul Karim (2006), the actual loss suffered by the banks operating in Palestine was due to different types of operational risk. He found that external fraud came in first place with more than 50% of the banks suffering losses because of it. The second risk was attributed to the human element (more than 40%). The third place risks were related to the implementation and management of operations (34%). The fourth place risks were related to the automation system. About 13% of the banks suffered losses because of it. However, no bank was subjected to actual losses due to natural disasters.

Overall results of Abdul Karim (2006)'s study showed a clear reduction in the level of commitment of banks operating in Palestine to the sound practices prepared by the Basel Committee on Banking Supervision, Management, Control, and Monitoring Operational Risk, regardless of whether the bank was Islamic or commercial, small or large in size and activity. However, it was found that there were some differences in the availability of some elements between local banks and expatriate banks especially those on the general framework for operational risk and the presence of the department for risk.

Abdul Karim (2006) stressed in his study, "The Banking Risks in the Areas of the Palestinian National Authority" that the banks operating in Palestine had to exercise greater caution and restraint in the management of their affairs in order to minimize and avoid risks faced because of particularism of banks in Palestine as a result of the high level of political risk and the associated instability in the economic situation and difficulty of banks to predict. On the other hand, he also found that that public administrations of banks operating in Palestine were characterized by weak structure in internal control systems and a lack of integration in activities of the bank with the activities of the internal audit department. These banks rely mostly on cloning work procedures without developing them to suit the particularism of the Palestinian reality. At the same time, the study found out that there were encouraging signs of banks' attention in general to, and interest in the subject of operational risk because of its importance.

Kollab (2007), in her study about motives for the application of Basel II instructions, found that banks operating in Palestine try to apply the pillars of Basel and were able to support the Basel II before it became enforceable in 2009. The most important incentive for applying the pillars of Basel II is the strengthening of the stability of the banking system, its transparency, disclosure of information, and improvement of risk management.

The study discussed the challenges facing the banks operating in Palestine in the implementation of the pillars of Basel II. It found that the most important challenges were the lack of strategic plans, poorly trained internal human resources, inadequate accounting policy with global practices, weak legal and legislative environment and lack of external human cadres (which enjoy expertise in foreign banks as well as local expertise) in the area of financial analysis, accounting systems, and technical information.

The study showed the unwillingness of national banks operating in Palestine to abide by the

requirements of Basel II, as there was no creation of risk management during the absence of an independent risk management policy and the absence of the structure of credit risk management, marketing, branch operations management. The study showed that PMA was not apparently ready for the observation of requirements of Basel II. Due to the lack of instructions and guidance, it did not develop the regulatory laws and procedures necessary for the application of the pillars of Basel II.

## 2.7 Conclusion

The best defense against operational risk is to have effective systems and controls. These need to be appropriate to the risks and as easy as possible to understand, implement and monitor.

The boards of directors and general managements in banks should ensure the existence of an effective framework for the management of operational risk and should include an organizational structure that clearly identifies roles and responsibilities, and all components of operational risk management. They should provide support tools to define, evaluate and adjust these risks. Also the banks should develop and adopt policies and procedures in order to control, or reduce operational risks. The banks should also identify and assess the risks that are fully operational and which can be found in the various activities of the bank, as there must be continuous monitoring and follow-up in order to control these risks.

There is a strong common interest between the regulators and bank's senior management in operational risk management. An intensified interest by the bank's management in everyday operational losses is likely to reduce the possibility of large losses, and improve general risk awareness in a bank. In addition, the regulator would feel that the interests of the consumer are being better safeguarded.

When considering operational risk, the regulator faces a dilemma similar to that of the bank's : where are the main risks? How can they best be controlled? What level of capital can reasonably be required? In the future, it is likely that these questions would become even more pertinent. This is not only because regulators, in line with some banks, are carving out capital to be held specifically against market, credit and operational risk but it is also because regulators have come to think that operational risk may not be significantly correlated with market risk and credit risk.

The management's good practices of operational risks and calculation of capital requirements need to be done by the supervisory authorities of banks to enhance the efficiency of its human resources and technical supervision of operational risk. They should be guided by the principles issued by the Basel Committee Banking Supervision. The banks need to keep up with recent developments of good practice and qualify staff to deal with these risks. The banks also need to develop instructions and procedures for measuring and monitoring operational risk under their supervision .

Arab banks, according to Hashad ( 2005 ), need to develop regulations and policies for the management of banking risks. This has become not only a fundamental requirement of the Basel-II requirements, but also an important requirement for survival in light of the growing financial globalization and the openness of financial markets to each other and between banking institutions . The good management of banking risks requires that boards of directors and senior management in banks should be interested and fully aware of the importance of risk management banking, and the development of strategies and policies, and reliance on the scientific method for measurement of banking risks and competence and experience in the management of those risks.

### 3. Research Methodology

This study was conducted using a methodology that consisted of three major elements. The first was a comprehensive review of the literature related to risks in general, and operational risk in particular, with emphasis on the related Basel Committee recommendations on Basel II and the sound practices of managing and controlling operational risk. The second was based on the empirical results through intensive interviews with PMA representatives, and five risk managers working in banks operating in Palestine. The researcher analyzed the results in order to reach an actual understanding of banks' and PMA's roles and their methodology and concepts of managing and controlling operational risk.

The third instrument was a questionnaire developed and administered to 17 banks (all banks operating in Palestine) to measure awareness of and compliance with Basel II recommendations and PMA's instruction on this subject.

This research will be descriptive and evaluative

- Secondary sources: Literature review of published research.
- Primary sources: Intensive interviews with top managements in a number of banks operating in Palestine, and administration of questionnaire to 17 banks (all banks operating in Palestine).

#### 3.1 Instrument of the study

The questionnaire was the major instrument used in this study. It was divided into six major parts consisting of 66 closed questions: 63 Likert's scale questions, three ranking questions and one open question.

The first part consisted of demographic questions pertinent to the respondents, bank type, activity, number of branches, establishment date, presence of risk department, and operational risk unit. The second part was about the board of directors and top management role, while the third was about evaluation and measurement of risk. The fourth part was about control of risk whereas the fifth was about insurance policy. The last one was devoted to PMA's role in operational risk.

#### 3.2 Data collections & analysis

Seventeen copies of the questionnaire were administered to all risk managers in banks operating in Palestine. SPSS v. 17 and excel programs were used to enter and analyze the data. Five intensive interviews were conducted with risk managers in banks and one constructed interview was conducted with a PMA representative.

#### 3.3 Validity of contents

Five referees were consulted to test the validity of the study instrument. They all had a high level of education, knowledge and strong experience in the subject of risk. Two of them were lecturers at Birzeit University and three others were bank experts. The referees verified the validity of content, and they approved of it after asking for some modifications to it and making observations upon their request.

The questionnaire elements and questions were built to be compatible with previous studies and literature reviews which stressed the importance of these elements and their impact on operational risk in banks operating in Palestine.



### 3.4 Reliability

A pilot questionnaire was administered to five risk managers at banks to test the reliability of the study instrument to make sure of the reliability of the data .

Cronbach's alpha was calculated using SPSS statistical software in order to test the consistency. This parameter shows the extent of correlation between the elements as a group (covered by in the research). It was found to be positively correlated.

The result showed that the Cronbach's alpha coefficient was equal to 0.805. This result is close to 1. That is, the consistency was high and therefore, the reliability was high, too .

#### Reliability Statistics

Cronbachs Alpha	No. of Items
0.805	63

### 3.5 Limitations

The interviews were conducted with a limited number of bank managers because the study concentrated only on the banking sector. On the other side, some people who were interviewed were not cooperative; they did not disclose bank information and internal data; this might have affected the authenticity of their answers. Also, most of banks established new risk departments but failed to create tools of measuring the performance of risk operation function.. The difficulty of conducting a formal interview with the representative of the PMA was another limitation of the study. Finally, PMA did not impose on banks the implementation of all the instructions of Basel II, especially the capital needed to calculate the operational risk .



## 4. Findings and Results

### 4.1 Banks' commitments to and compliance with PMA instructions and Basel requirements

There are five major factors that affect operational risk management in banks. These factors were examined to find the level of banks' commitments to and compliance with PMA instructions and Basel requirements. The first factor was insurance policies. The second factor was the PMA's instructions and their role in monitoring and supervising operational risk. The third factor was control plans and procedures adopted by banks to eliminate or mitigate the effect of operational risk in banks. The fourth factor was the role of board of directors in the development of policies to address operational risk and monitor the implementation of those policies by the executive management. The last factor included risk evaluation procedures, measurement tools and methods of operational risk.

#### Descriptive Statistics

	No.	Minimum	Maximum	Mean	Std. Deviation
Insurance Mean	17	3.17	5.00	4.4902	.49466
PMA Mean	17	3.83	5.00	4.4510	.41043
Control Mean	17	3.35	5.00	4.2976	.50878
Role of Board of Directors Mean	17	2.78	5.00	4.1961	.64374
Risk Evaluation Mean	17	2.75	4.63	3.7941	.55011
Average of means				4.25 (0.85%)	

The results showed the presence of a high commitment by banks to PMA's instructions. It was found that 85% of the banks complied with the PMA's directives and banking monetary policies.

### 4.2 Variables affecting the operational risks in banks

Four variables were examined to find their impact on the operational risks in the banks using one way Anova – test:

#### 1- Bank type: (local or foreign)

There are seven native banks: Bank of Palestine, National Bank, Palestine Commercial Bank, Arab Islamic Bank, Al Quds Bank, Palestine Islamic Bank, and Palestine Investment Bank. There are also ten foreign banks: Cairo Amman Bank, Jordan Commercial Bank, Egyptian Arab Land Bank, Arab Bank, HSBC Bank, Bank of Jordan, Union Bank, the Housing Bank for Trade and Finance, Jordan Kuwait Bank, and Jordan Ahli Bank.

The result showed that  $\text{sig} > 0.05$ , and that means there was no significant impact or any correlation between the bank type and the bank's level of commitment to PMA instructions or Basel requirements.

#### 2- Bank activities (commercial or Islamic)

There are two Islamic banks operating in Palestine: Arab Islamic Bank, and Palestine Islamic Bank; the other banks are commercial. The results showed that  $\text{sig} > 0.05$ , and that means there was no significant impact or any correlation between the bank activity and the bank level of commitment to PMA's instructions or Basel requirements.

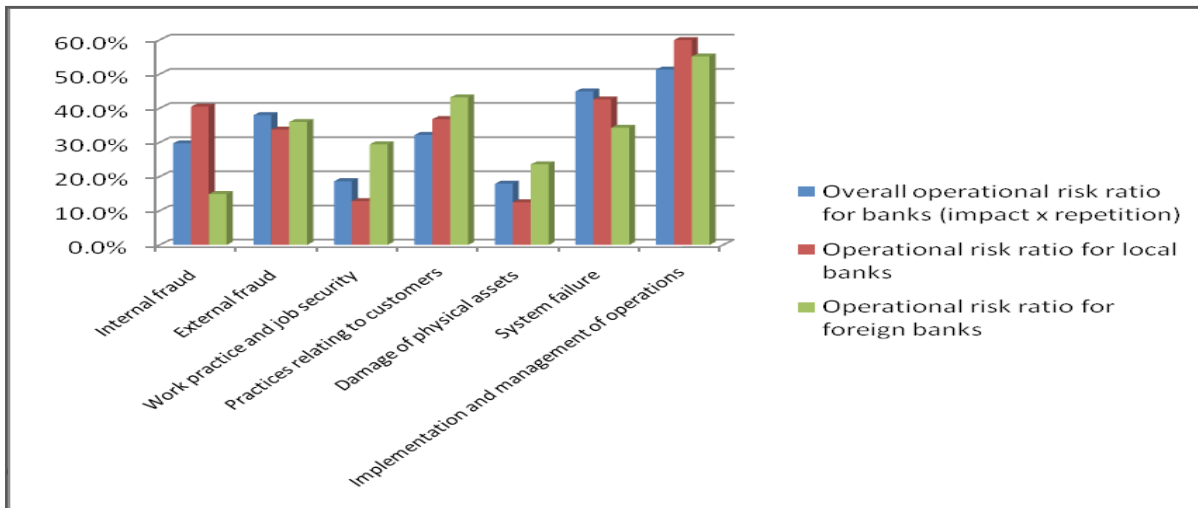
#### 3. Date of establishment

The result showed that  $\text{sig} > 0.05$ , and that means there was no significant impact or any correlation between date of establishment of the bank, and the bank's level of commitment to PMA's instructions or Basel requirements.

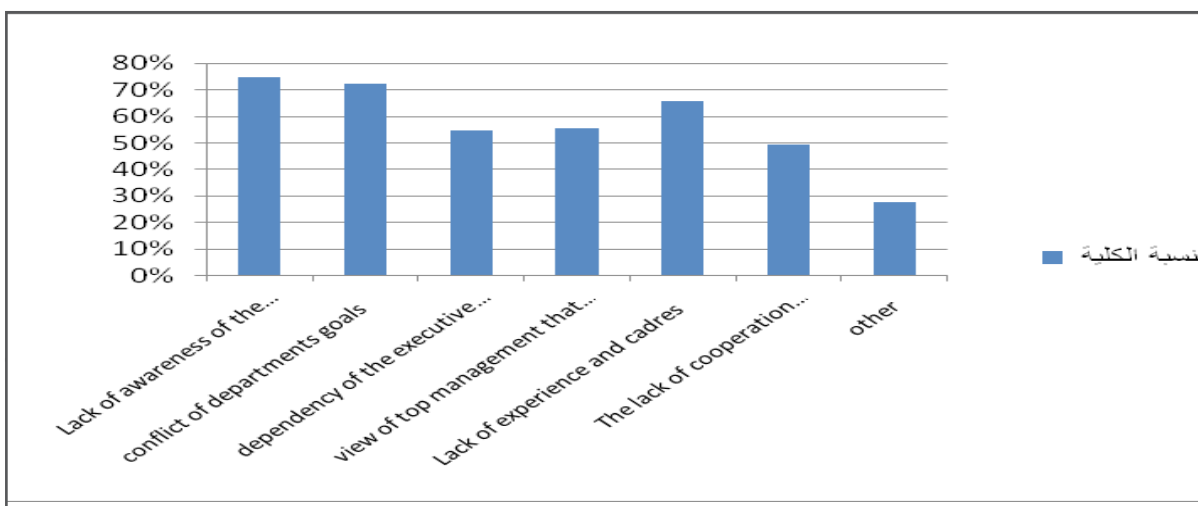
#### 4. Number of bank branches

The result showed that  $\text{sig} = 0.057$ , and that means there was some significant impact of the bank size on the bank's level of commitment to PMA's instructions or Basel requirements. This may be due to the large banks' big capital which can provide them with the appropriate hardware and software for operational risk management. This was in addition to enabling them to bring capacity and qualified cadres with long experience.

Also, the study results showed that 14 bank had commitment to the presence of a separate department for the risk management. However, twelve banks out of seventeen banks operating in Palestine had operational risk units. This was a good number and a remarkable development in less than 5 years of PMA's instructions obliging banks to develop a fully-fledged department to manage risk in each bank operating in Palestine .



The study results showed that the most important operational risks faced by banks operating in Palestine were mistakes in implementation and operational processes (51%). System failure came in the second place(45%). Third risk was external fraud( 38%). The fourth risk was practices attributed to customers and products (32.2%). The internal fraud represented 29.7% of operational risks. The sixth operational risk was work practice and job security (18.6%). Damage of physical assets and natural disasters were the least factor that affected the operational risk in banks (17.9%).



The result showed that lack of awareness of the importance of operational risk was the most important difficulty and problem faced by banks in the operational risks sector. It represented 75% . The second was the conflict of goals between departments in the same bank(72%). The lack of experience and training of cadres came in the third place (66%). The fourth was the view of top management that the operational risk department was not profitable( 55%). The fifth one( 54%) was dependency and intervention of the executive management in operational risk reports. The lack of cooperation between supervisory departments came in the sixth place (50%). Other limitations, like the lack of competent hardware and software to measure operational risks in the bank, came in the last place (28%).

## 5. Conclusions

1. There was a high commitment by banks( 85%), operating in Palestine, to the PMA's instructions relating to operational risk
2. There was no commitment to the implementation of Basel II because the PMA did not impose on banks a hedge when calculating the capital base for operational risk.
3. The risk of implementation and management of operations came in the first place (51%) followed by system failure (45%) and external fraud (38%).
4. There was no obvious effect of the type of the bank (domestic or foreign) or the nature of its activities (commercial or Islamic) on the bank's commitment to hedge against operational risks.
5. Size and the number of bank branches had some effect on the extent of the bank's commitment to hedge against operational risks.
6. The most important difficulties and problems faced by banks in the operational risk management were the lack of awareness of culture of risk( 75%) , conflict of goals between departments in the bank ( 72%), and lack of expertise and qualified cadres in banks ( 66%).

## 6. Recommendations

### 6.1 Practical recommendations

1. Banks should increase the awareness of and educational information about the importance of operational risk in banks, and increase staff training, rehabilitation, and provision of modern hardware and software programs to measure operational risk.
2. The PMA should prepare a comprehensive plan for the implementation of Basel II, and increase its control over and supervision of the banks to make sure of the banks' commitment.
3. Association of Banks should set up a committee of selected and qualified risk managers in banks operating in Palestine to discuss the difficulties they may face and to take advantage of their expertise. This committee should be in charge of coordination with the PMA concerning the implementation of Basel II's instructions which are related to the operational risks.

### 6.2 Theoretical recommendations

1. Researchers are asked to do research and studies annually to monitor the development of banks and study the most important bank problems, and make recommendations for boards of directors in banks in this regard.
2. Researchers have to study the banking sector in the Arab world, especially in Jordan, to take advantage of its experience, and avoid exposure to operational risks which they were subjected to.

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