

## **Palestine Banks Sector Ability to Apply Credit Risk Management According to Basel III**

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**Abstract.** In this paper, we integrated a novel framework to develop credit risk management systems for Palestinian banks based on international standards (Basel Capital Accord). First, we evaluate the credit risk management systems and strategies that the operating bank in Palestinian banking system mandate. Second, we used the analytical description methodology to describe the new Basel accord for effective banking supervision. Our study showed that despite the efficiency of personnel in the credit technical staff, it is still difficult for Palestinian banks to measure credit risks according to Basel III approaches.

### **Introduction**

Bank risk management is one of the most important issues for bankers worldwide [1]. Particularly since the past few years, following the financial and banking crises; beginning with the financial crisis in Mexico at the end of 1994 and early 1995, Passing by the financial crises in southeast Asia[2], Brazil, Russia and Turkey, and ending with the global financial crisis in 2008[3, 4]. The global financial crisis was the most critical crisis that influenced the global economy, especially finance and banking sectors [5-7].

Basel is considered one of the leading issues in the international and Arabic banking community. Since it compel the banks to develop risk management culture according to the new international standards [8-10]. In addition it compels the banks also to conduct special internal financial arrangements to improve the quality of assets, building databases for their clients and their portfolios for previous years, and manage many kinds of banking and financial risks[11, 12]. The Palestinian banking sector has demonstrated success and progress, despite the difficulties and the stumbling economy in general in Palestinian territories since the beginning of the uprising in September 2000 up to date. Since the banks were able to maintain its assets, recorded significant increases in assets, and provided variety of services and products to their clients. Banks in Palestine are facing some risks: 1- The presence of legislative vacuum “lack of specialized commercial courts.” 2- Lack of political and economic stability in the Palestinian territories. 3- The non-application of the mortgage law in Gaza Strip, and pledge of transferred property in the Palestinian territories. 4- The lack of supportive financial institutions such as deposit insurance institutions. 5- Weakness of financial and accounting applications in the Palestinian business environment. 6- Lack of specialized investment banks. 7- The absence of national currency which led to transferring bank surpluses outside Palestinian territories, and depositing it in the form of assets in foreign banks. 8- Increasing bad debts in Palestinian banks, and rise of the value of doubtful debt provisions, which led to decrease in bank revenues. 9- Absence of the real competition between Palestinian banks, due to the focus on a limited number of foreign banks. 10- The absence of local credit rating agencies, which will limit the ability of banks to take advantage of the preferential weights that are given to customers who may have access to a high credit rating.

In light of technological and financial developments in risk management; safety and stability of the financial and banking systems depends on the bank's success in adopting sound and effective strategies and systems for different banking risk management[13, 14]. In addition to policies that improve the quality of assets, particularly the loan portfolio, in order to reduce its risks and develop

accounting systems, transparency, and disclosure, in accordance with international and local standards for accounting systems[15, 16]. Moreover, developing customer information systems and credit portfolios of the previous years. Also, providing human resources so as to enhance the capital adequacy "bank solvency"[17, 18]. Since the strongly capitalized banks which are managed by good managements have the ability to face losses and grant credit to their clients and business facilities through business cycle "economic volatility," and this helps to strengthen public confidence in banking system. Hereby, the study addresses the reality of strategies and regulations adopted by credit risk managements and systems in Palestinian banks. In addition to the basics and preparations required to develop those systems according to the international banking control standards and guidelines "Basel committee requirements for banking supervision." This raises a number of questions: 1- What is the current status of credit risk management strategies and systems adopted by Palestinian banks? 2- To what extent the Palestinian banks are ready to develop credit risk management strategies according to the international banking control standards and guidelines "Basel committee requirements for banking supervision"?

## Methodology

**Data Collection Sources:** The researchers used primary and secondary sources to collect data. Data primary sources were represented in the survey. Palestine currently is hosting 16 banks including 7 national banks and 9 foreign banks with branches and offices reached 272. However, 32 offices were excluded due to lack of credit facilities employees in these offices. Hence, the number of branches in the society for the study is 240 branches in eastern governorates (West Bank) and southern (Gaza Strip).

**Statistical Method:** The statistical program "SPSS" was used for data processing and analysis of field study results. In addition, the following statistic has been used: Frequencies, averages and percentages. Pearson Linear Correlation Coefficient. Internal reliability and validity test for performing the study through Cronbach's alpha coefficient and Split –Half coefficient. Normal distribution test for data "One-Sample Kolmogorov Smirnov Test". One sample t test.

## Results

One sample t test was used to analyze the paragraphs of survey. The following tables include the arithmetic mean, mean relative weight and the value of t in addition to the significance level in each paragraph. The paragraph is considered positive, i.e. sample individuals agree about the content, if the calculated absolute value of t exceeds the tabulated t absolute value, that equals 1.98 at a freedom degree of "109" and intangible level of "0.05" (or the intangible level is less than 0.05 and the relative weight exceeds 60%). The paragraph is considered negative, i.e. sample individuals do not agree about the content, if the calculated absolute value of t is less than the tabulated t absolute value at a freedom degree of "109" and intangible level of "0.05" (or the intangible level is less than 0.05 and the relative weight exceeds 60%). The opinions of sample in the paragraph are considered neutral in case the intangible level exceeds 0.05.

**Statistical Results of First Hypothesis Test (H<sub>1</sub>):** The existence of a statistically significant relationship between the development of credit risk management systems according to Basel Capital Accord in Palestinian banks, and between efficient credit risk management strategies and policies approved by the Board of Directors and senior management in banks. It reflects the probability of bearing credit risks and the level of earnings expected in case of various credit risks.

Table 1 indicates the analysis for first field paragraphs, and that the opinions of all sample individuals are positive in all paragraphs. As the mean relative value for each paragraph exceeds 60% and the intangible level is less than 0.05, i.e. the individuals of sample agree that Board of directors is the authority in charge of setting the overall goals, policies and procedures related to managing credit risk "in a relative value of 82.75%, and also agree that credit risk management include definition and identification of credit risks and methods "approaches" of measuring and controlling these risks in a relative weight of 87.45%.

Table 1. A table indicates the answers of sample individuals on the paragraphs of first field.

N	Paragraph	Mean	V.R	t	Sig.
1	Board of directors is the authority in charge of setting the overall goals, policies and procedures related to managing credit risk.	4.14	82.75	12.409	0.000
2	Board of directors is responsible for revising the financial results of the bank regularly, as well as the risks.	4.37	87.45	19.785	0.000
3	Board of directors is responsible for reviewing credit policies and applying appropriate adjustments.	4.27	85.45	17.178	0.000
4	The strategies and policies of credit risk management approved by the board.	4.28	85.64	16.744	0.000
5	manage credit activities efficiently and effectively.	4.19	83.85	16.574	0.000
6	Board of directors is responsible for revising the financial results of the bank regularly.	4.25	84.91	15.814	0.000
7	Senior management is responsible for applying the strategy of credit risk.	4.18	83.64	16.130	0.000
8	Individuals in charge of credit risk management	4.2	84.04	14.619	0.000
9	Separates between measuring and monitoring credit risk.	3.96	79.27	10.559	0.000
10	Identifying and analyzing the potential risks.	4.05	81.09	12.194	0.000
11	Qualified staff with sufficient experience.	4.05	81.09	12.937	0.000
	<b>All paragraph</b>	<b>4.18</b>	<b>83.54</b>	<b>20.867</b>	<b>0.000</b>

Tabulated t value at a freedom degree (109) and intangible level of 0.05 equals 1.98

In addition, individuals of sample agree that Board of directors is responsible for reviewing credit policies and applying appropriate adjustments so that these policies can comply with fundamental changes in internal and external environment of the bank in a relative weight of 85.45%. Beside that they also agree that Board of directors is concerned about the executive management's commitment to manage credit activities in the bank, in accordance with the strategies and policies of credit risk management approved by the board in a relative value of 85.64%. Moreover, they agree that senior management assigns clearly individuals in charge of credit risk management and identifies their authorities and responsibilities in a relative weight of 84.04%. Furthermore, they agree that senior management separates between measuring and monitoring credit risk on one hand and controlling and following up from the other hand in a relative weight of 79.27%. It is clear here that there is a relative decline in this paragraph compared to other paragraphs of this field, as it is evident that some banks do not allocate a separate department for credit risk, but combines between monitoring and measuring credit risks on one hand and controlling and following up from the other hand in one department named facilities. Further, they agree that senior management sets a thorough study of the risks, identifying and analyzing the potential risks related to the new bank services before applying and approving by board of directors in a relative weight of 81.09%. Besides providing qualified staff with sufficient experience by senior management, who is able to perform credit activities with high standards in accordance with the banks policy in a relative weight of 81.09%.

In general, it is clear that the arithmetic mean for all paragraph of first field equals 4.18, and the relative weight equals 83.54%, which exceeds 60%, and the calculated t value equals 20.867, which exceeds the value of tabulated t that equals 1.98, and an intangible value of 0.000 which is less than 0.05. The fact that indicates the acceptance of hypotheses that states: "there is statistical relationship between developing credit risk systems according to the new framework of capital adequacy "Basel III", and between efficient credit risk management strategies and policies approved by the Board of Directors and senior management in banks. It reflects the probability of bearing credit risks and the level of earnings expected in case of various credit risks." This in turn affirms the compliance of banks to apply first, second and third principles of credit risk management principles mentioned in Basel document 2011. In addition, the third clause of Article 38 in Palestinian Banks Law for 2002 stipulated that Palestinian Monetary Authority may identify the terms that shall be applied towards types and ways of bank credit. This result here in this research is in conformity with American

Financial Services Commission (1999) (documentation) through the principles of bank credit risk management issued by it, which include that Board of Directors in each financial organization have

to set credit risk policies. These policies include defining or identifying these risks and methods or approaches to measure, manage and monitor risks. Board of directors has to revise these policies and apply appropriate adjustments in addition to the presence of organizational structure that clearly identifies the responsibilities of individuals in which their business decisions result in risks.

**Statistical Results of Second Hypothesis Test (H<sub>2</sub>):** The existence of a statistically significant relationship between the development of credit risk management systems according to Basel Capital Accord in Palestinian banks, and between management, measurement and adjustment of credit operations in banks in an appropriate way.

Table 2. Indicates the answers of sample individuals on the paragraphs of second field.

N	Paragraph	Mean	V.R	t	Sig.
1	The adequacy and efficiency of guarantees.	4.29	85.82	17.055	0.000
2	Comply with policies of credit risk management.	4.26	85.27	15.732	0.000
3	the expected changes to economic conditions.	4.15	82.91	17.12	0.000
4	Get benefit from the guarantees to reduce credit risk.	4.23	84.67	16.032	0.000
5	Guarantees are still able to support the loan.	4.3	86.00	17.378	0.000
6	Applying the periodic review to classify credit portfolio.	4.30	86.00	19.913	0.000
7	The bank is keen to keep financial allocations for the expected losses in the portfolio.	4.33	86.67	20.270	0.000
8	Lending and monetary policy of the bank is achieved efficiently by the decrease in bad debts.	4.11	82.26	13.243	0.000
9	Management exert great efforts to deal with bad debts	4.28	85.64	16.988	0.000
10	Limit concentration "credit portfolio diversification".	4.04	80.73	13.089	0.000
11	"sensitive risk pricing.	3.96	79.27	12.505	0.000
12	Approve credit-granting transactions to the individuals.	4.26	85.27	16.615	0.000
13	The credit management is concerned with studying credit.	4.16	83.12	13.992	0.000
14	The sufficient financial analysis of credit	4.06	81.27	13.141	0.000
15	Technical.	4.06	81.27	13.311	0.000
16	The return of credit activities.	3.96	79.27	11.151	0.000
	<b>All paragraph</b>	<b>4.17</b>	<b>83.5</b>	<b>23.342</b>	<b>0.000</b>

Tabulated t value at a freedom degree (109) and intangible level of 0.05 equals 1.98

Table 2 indicated the analysis of second field paragraphs, and that the opinions of all sample individuals are positive in all paragraphs. As the relative weight for each paragraph exceeds 60% and the intangible level is less than 0.05, i.e. the individuals of sample agree that the bank operates under a sound credit granting criteria by identifying: the targeted markets, economic sectors, credit deadlines and credit worthiness of the borrower, in addition to the adequacy and efficiency of guarantees in a relative weight of 85.82%. In addition, the executive management complies with policies of credit risk management set by board of directors in a relative weight of 85.27%. Beside that the bank takes into consideration the expected changes to economic conditions while assessing credit and credit portfolio in a relative weight of 91.82%. Moreover, the bank will get benefit from the guarantees to reduce credit risk in a relative weight of 84.67%. Further, the bank makes periodic assessment for the customers' guarantees, to ensure that these guarantees are still able to support the loan and reduce credit risk in a relative weight of 86%. Furthermore, the bank is keen on applying the periodic review to classify credit portfolio in a relative weight of 86% and to be keen to keep financial allocations for the expected losses in the portfolio in a relative weight of 86.67%. In addition to achieving lending and monetary policy of the bank efficiently by the decrease in bad debts to total facilities, and by not exceeding the global ratio within a maximum of 3-10% in a relative weight of 82.26%. Moreover, general manager and workers on credit management exert great efforts to deal with bad debts and undermine its negative impact on business and bank's capital base in a relative weight of 85.64%. In addition, the bank sets regulations to limit concentration "credit portfolio diversification" for one borrower or a group of related borrowers for geographical regions and economic sectors, in a relative weight of 80.73%, and that the bank follows a proper pricing methodology for credit "sensitive risk pricing", in a relative weight of 79.27%. Further, Board of Directors must approve credit-granting transactions to the individuals

affiliated to the bank and approved by regulatory authorities in cases of “stockholders”, in a relative weight of 85.27%. In addition, the credit management must be concerned with studying credit risk by conducting future studies and the expected studies of the customer, in a relative weight of 83.12%, and credit management must be concerned with the sufficient financial analysis of credit and following up with the borrower as this helps to realize credit deterioration at an early stage and collaborate with the borrowers to address it, in a relative weight of 81.27%. Finally, individuals who manage credit risks must have managerial and technical skills that are required to manage credit risk effectively, in a relative weight of 81.27%, and that the return of credit activities exceeds the risks faced by the bank, in a relative weight of 79.27%.

In general, it is clear that the arithmetic mean for all paragraphs of second field equals 4.17, and the relative weight equals 83.5%, which exceeds 60%, and the calculated t value equals 23.342, which exceeds the value of tabulated t that equals 1.98, and an intangible value of 0.000 which is less than 0.05. The fact that indicates the acceptance of hypotheses that states: “The existence of a statistically significant relationship between the development of credit risk management systems according to the new framework of capital adequacy “Basel III” in Palestinian banks, and between management, measurement and adjustment of credit operations in banks.

This in turn affirms the compliance of banks to apply fourth, fifth, sixth, seventh and ninth principles of credit risk management principles mentioned in Basel document 2011. In addition, it agrees with the limits set by monetary authority to limit borrowing risks between relative parties, according to Articles (16, 21) of Palestinian Banks Law for 2002, and Resolution of Palestinian Monetary Authority no. (1) issued on 20/7/1995. It also agrees with monetary authority regulations to limit credit concentration in banks according to circular no. 20/1997, and compliance to instructions of field inspection performed by monetary authority inspectors. In addition to allocations formation adequacy to cover direct and indirect risks of facilities according to clause 2 in Article (38) of Banks Law for 2002 and the Palestinian Monetary Authority circulation no. 93/2001.

## **Conclusion**

This study aims to evaluating reality, strategies and systems of credit risk management that are adopted by Palestinian banks. In addition to evaluating the procedures and measures taken in order to develop these systems, according to international supervision principles and guidelines “new Basel committee requirements for banking supervision Basel III”, and preparing a comprehensive framework for credit risk management in banks according to the modern management of bank risks. Moreover, the contents of this study focus on achieving these aims. Accordingly, the results of study are mentioned in respect to aims of study, whereas the efficiency of credit operations were clear from studying the environment of credit risk in Palestinian banks, through approving a strategy by bank Board of directors for managing credit risk that includes setting the credit policies, identifying credit, methods of measuring and monitoring these risks and controlling it. Moreover, Board of Directors review credit policies and perform appropriate adjustments in order to be suitable with the bank internal and external environment changes. In addition, Board of Directors is keen about the executive management’s commitment to manage credit activities in the bank, in accordance with the approved strategies and policies and following up the application of these policies efficiently and effectively. Further, credit facilities management is concerned to study credit risk, the fact that showed the presence of effective control on credit, through the keenness of banks to adequate the financial allocation for the potential risks in the credit portfolio, as well as the compliance to the requirements of capital adequacy.

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