

## **BANKS BASEL II NORMS REQUIREMENT REGARDING INTERNAL CONTROL FIELD STUDY ON JORDAN BANKS**

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**T**HE study aimed at investigating the degree of application of Basel's committee requirements by Jordan banks. For the purpose of achieving the research objective, a questionnaire was developed and distributed over 40 subjects from all commercial banks in Jordan, the data was analyzed by using Statistical Package for Social Sciences (SPSS). The results revealed that all banks in Jordan are applying Basel's II norms. Results do not reveal any significant difference on the extent of implementing Basel II committee resolutions. It seems that availability of internal control systems and providing the same with work freedom shall not be limited only to Jordan banks but the existence of Arab, and foreign banks in Jordan. Moreover the results revealed that there were significant differences in application of Basel's II norms between local banks and foreign banks.

**Key Words : Basel II, Control, Risk, Information, Communication and Operations.**

### **Introduction**

By the end of the past century, those who were in charge of global banking system recognized the importance of setting up role and new philosophy of capital. McDonough, (1999) chief of American central bank said that the increase of pressures on banking systems has confirmed the need to adopt a new definition of capital. Board of governors (2005) had identified the relation of capital with risks and how to measure the same accurately, the conformity of managerial practices and the availability of board of directors capable to draw the polices according to specification of risks.

To manage risks, the executive management needs periodical evaluations of followed procedures, its appropriateness, the availability of managerial authorities, efficient human resources and management of fruitful discourse to enhance internal control system capability on control and measurement. McDonough (1999) confirmed that control systems had to maintain banking systems stability through following appropriate and specified roles that facilitate banking problems solving and to reduce its accuracy. Internal control systems may be obliged sometimes to spend long time in handling some issue, as the case of financial crisis which some states in South East of Asia had suffered from. Some times it may need to spend long time to reduce the accuracy possibility. Basel committee who is in charge of supervising banks has issued a paper which includes a frame work to establish internal control system practically applicable by banking supervision jobs.

### **Study Problem**

Different perspectives emerged between banks toward Basel II norms. Freixas and Rochet (1997) confirmed that internal conflict between shareholders and management influences the asset types and threatens capital, and ignores depositors' interests. As a result, caring of other interest requires the

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existence of written instructions and internal control that contributes in identifying cases that management should represent shareholders, and the cases that should show its concern with others such as depositors. Basel II norms came as an attempt to reduce the gap in point of views between conflict practices. Therefore, the difference of bank implementation of those resolutions emerges. Study problem can be stated as follows:

To what extent banks in Jordan have implemented Basel II norms related to enhancing internal control in the banks.

## **Study Objectives**

The study aims to measure the implementation degree of Basel II norms by banks in Jordan related to internal control in banks, and to determine any differences that have resulted by its implementation between Jordan banks, Arabic and foreign banks.

## **Hypothesis**

### **First hypothesis**

Ho: Jordan banks do not apply Basel II norms related to internal control.

### **Second Hypothesis**

Ho: there are no statistically significant differences in Jordan banks implementation degrees of Basel II norms related to internal control due to bank identity.

## **Methodology**

### **Study Population and Sample**

Study population consists of all bank employees within internal control, risk management, operations department, and credit department. 62 questionnaires were distributed over 10 banks in Jordan, selected by random sampling technique. 40 questionnaires were received that is (64.5%).

The questionnaire includes Basel II norms which consist of: Administrative Supervising and Control Culture, Risks definitions and evaluations, control activities and task separation, information and communications, operations following and correction:

A set of questionnaire's questions were allocated to measure each of them: administrative supervision and control culture from 1-13, risk definition and evaluation from 14-20, control activities and communication from 28-32, and finally questions 33-41 to measure operations following and implementation correction.

## **Reliability and Validity**

To verify instrument validity, the survey was presented to five professionals in banking sciences. Two of them are working in Jordan Universities; three are working in management in some Jordan banks. Their remarks were considered before questionnaire distribution.

Cronbach's Alpha formula was used to measure total reliability of this questionnaire, which is (96.19), while reliability coefficients related to study elements ranged between (66.26) and (93.46), as shown in Table 1.

## **Literature Review**

Evaluation principles as mentioned within Basel II norms.

Basel's committee which is concerned with supervising banks handed a general frame to evaluate internal control system banks that are practically applicable to supervising jobs for evaluating internal

**Table 1: Reliability Coefficients of Study Dimensions and Total Dimension**

| Dimensions                                     | Cronbach's Alpha Coefficient |
|--|------------------------------|
| Administrative Supervising and Control culture | 93.46                        |
| Risk Definition and Evaluation                 | 91.56                        |
| Control Activities and task Separation         | 66.26                        |
| Information and Communication                  | 92.14                        |
| Operations Following and Errors Correction     | 89.48                        |
| <b>Total Degree</b>                            | <b>96.19</b>                 |

control systems. Such instructions came after analytical studies results related to losses that affected various banking institutions were reported, which was attributed to poor internal control systems. Internal control systems before the issue of Basel II norms was considered as total system that include financial control, organizational structure, procedures, and internal auditing (Hrkat, 1998).

After issuing of such norms researchers agreed that internal control is an independent subjective activity with consulting nature that aims to raise organization value and to improve its operational process, and helps organization to achieve its objectives through using subjective approach to evaluate and improve the risk management, control and organizational control process effectiveness. (Institute of Internal Auditor, 2001).

Basel II norms included a frame to evaluate internal control system in banks within five main elements as follows. (Basel, 1998).

**First: Administrative Supervision and Control Culture**

This includes three principles:

- 1. Board of Directors Responsibilities:** It includes the verification of existing and continuity of effective internal control system, it also includes the periodical review of strategies and polices, periodical review of bank's strategy and risks limits, and to ensure that executive management has taken required steps to determine, measure and risk control, and approved organization structure.
- 2. Executive Management Responsibilities:** It includes implementation of different polices and strategies approved by board of directors, developing operations and polices related to determination, measurement and monitoring of risk: this includes maintaining of organizational structure by executive management, clear responsibilities, power control, placing proper polices for internal control system, observing system effectiveness and efficiency, ensuring that bank's activities are performed by trained and qualified employees and setting up motivational polices for good performance.
- 3. Honesty and High Ethical Standards:** It aims to promote moral standards and to create control culture within the organization, which is based on joint efforts of board of directors, and executive management represented by general directors and their assistants to achieve that through setting up internal control principle as being the responsibility of all individuals in the organization and to enhance optimal honesty principles and moral principles in dealing procedures.

### **Second: Risks Definition and Evaluation**

This includes risks evaluation and determination after identification of its negative effects on intended objectives. This requires effective evaluation according to benefit and principle, classification upon control possibility.

### **Third: Control Activity and Tasks Separation**

This can be determined according to Board of directors and executive management agreement. It includes control activity, bank's sections and departments, performance reports, and material control by using different controls that prevent any access to the assets. In addition of setting special limits of risks group that prevent big losses and using other control activities associated with authorizations and agreements systems or verifications and conformity.

With respect to tasks separation between contradicting jobs, it was agreed upon that individual employee should not perform contradicting tasks and reducing the possibility of rubbery and falsifications, or non-existence of improper controls in the cases that where the individual is responsible for contradicting activities, and to prevent any works that violate policies and control procedures.

### **Four: Communication and Information Systems**

That are capable to reach operational and financial statements in due time, and includes the existence of information systems that are subject to proper protection methods, and the availability of effective communication channels that contribute in implementation of polices and supported by organizational structure, that helps data flow vertically as well as horizontally.

### **Five: Operations following and Imperfection Correction through Continuous Observation of Internal Auditing to Ensure its Efficiency, and Man Risks Control, and Periodical Evaluation of these Operations**

Basel's committee resolution indicated that internal audit should enjoy the independence and the professional capability and high efficiency, in order to perform an effective and comprehensive role in evaluating bank's operations and presenting reports to board of directors and executive management.

Operations following and imperfection corrections include the necessity of notifying any gaps in internal control system in the proper time. Basel's committee resolution administration level and in the proper time regarding any gaps or problems in internal control system, for the purpose of treating the same in the proper time, Basel II norms recommended that evaluation of internal control systems by supervising authorities is necessary according to a set of different procedures in order to be sure of its efficiency.

### **Who is Afraid of Basel II norms**

Basel II committee's concentration on administrative procedures related to policies improvement and reducing its impact on administrative orientation and selection technology environment. It exerted more efforts to be free of any investment cases that require increment of capital under high quality of assets that were linked with weights that fit with credit risks degree determined by private credit agencies. Group assets were different between low risk with weights less than 20% and other of high risks with likely weights reach up to 15%. Banks were obliged to classify its assets to size different categories, in order to be able to determine risks amounts that it will be subjected to upon choosing specified category of assets and the value that it should allocate to capital against this risk.

Basel committee introduced of three different methods to calculate capital capacity which lead to the confusion and sometimes to obstacles. Sharma (2002) indicated in this field to the existence of

three different methods to measure capital capacity such as using standardized foundation internal rating and advanced method. The first method is easy since it is the situation continuity which Basel agreement creates and which linked assets quality with weights, and keep the capital capacity average on 84%. But likely weights system has created a case of dissatisfaction among banks, since differences of size nature, assets, type, due periods gave some banks an advantage.

Retail banking that had the most diverged assets came in better situation than corporate banking. For example individual loans and credit cards which consists high percent of retail banking with likely weight amounting 75% while likely weights determined to the granted loans of share holding companies with credit classification B- or BB-, which consists the high percent of companies banks assets with likely weight 150%.

The second and the third methods that are usable within internal classification allowed the self consideration of the risks, on the contrary of what stated in the first method which approved risks external classification, since bank's management needs the availability of historical data that will be used in risk management and qualified trained staff. Such depending by the two methods on internal self evaluation of risks is preferred though increased the burden on internal evaluator.

Banks performances to one of the two methods came through because of its mistaken belief of their non efficient reserve in computing the required capital. The availability of capabilities and possibilities in large banks in data collections and analyses gave these banks advantage on other banks and forced small banks to use the first method. In addition, to its assets are subject to external credit classification. With respect to internal risk classification freedom as the most flexible it became preferred by large size banks, and is considered as fear resources of small banks which found itself under non fair competitive advantage. In brief Basel II agreement has placed great pressures on all banks to improve its asset quality and reduce credit risks. (Jensen et al. 1976).

### **Previous Studies**

Castro (2006) indicated that different risks evaluation methods are deemed among the most important contributions of Basel II agreement.

Castro (2006) considered such methods as internal systems and inputs used by banks to compute capital depending on its findings on risks measurement and using it to determine the minimum limit of the capital. The primary goal of such methods is to force banks to use certain methods in measuring its banking risks but to give a wide role to supervising parties and internal auditing groups to develop its special methods, for the purpose of selection a set of proper procedures and using data and banks' systems and to follow central bank initiatives. Basel committee (2005) indicated the importance of selecting honest and proper methods. In this context Seidenberg and Schuerman (2003) indicated that honest risk evaluation is linked with bank's ability to provide correct inputs, giving internal supervising parties a primary role that ensures banking system safety. Cauchy et al. (2000) indicated that Basel II agreement has given banks' supervising parties more important role for the purpose of developing special methods and forced the same to look for new skills about performance control. Therefore, Basel II agreement is an attempt to involve the supervising parties closely in self attempts to measure risk, capital capacity and quality certificate of internal efforts exerted in this report.

As a result, Hermalin and Weisbach (2006) adopted a theoretical method to examine the effect of banking motivation on reforming supervising parties inside the banks.

As an attempt to classify the banking activities, Freixas and Rochet (1997) specify three different approaches such as: portfolio approach, incentive approval approach and incomplete contract approach. Despite the fact that such approaches gave new options to supervising parties but each

of it has its own uses as mentioned by (Kahane, 1977, Kim and Santomero, 1988, and Kohen and Santomero 1980). Using portfolio approach is considered as similar to management approach of investment portfolio management and its requirement of knowing threat sources to its assets and liabilities.

With respect to intensive approach, supervising parts inside the banks focuses all of its concerns on depositors and share holders as funds resource.

Rochet (1992), Freixas and Gabillon (1999), Glammarino et al. (1993) argued that main risk resource of refers to internal conflicts and interests contradicting. If there is no internal conflict between different share holders then it reflects positively on reducing risks, and encourages banking legislator or supervising parties or insurance companies or deposit's that reduce predicted losses. The above mentioned studies considered the two previous systems that had contributed in highlighting bank's assets quality measurement.

Dewatripont and Tirole (1992) argued that the risks main resource is relatively appropriate with incomplete contract approach, since risks increased in case of conflict emergence between shareholders and bank's management according to agency cost theory, proposing that owners are a big public and distributed investors. Risks are reduced according to this approach if there is any possibility to write the contract between the tool (agency) and shareholders (owners) completely without leaving any gaps, and since such thing is impossible to occur, the conflict has an impact on asset quality and threat capital.

Freixas and Rochet (1997) confirm that the existence of written instruction contributes in determining the case that management should represent shareholders and the cases that should show the depositors care. Despite the differences between the three approaches, all of which agree on demonstrating risks different resources that threat capital capacity. KPMG (2004) specified many points such as banks should review its strategic goals and risks that were determined before. Since the success that certain bank achieves in reducing its total risks will be finally rewarded by having the permission to reduce the required capital size by central bank. Such goal is difficult to achieve due to the wide change the bank needs in following different aspects. Information system inside the bank, internal control approaches, individual behaviors, their relationships, operation approaches, followed procedures, demonstrating the sufficient ability to respond to the systems and different legislators, and the ability to set different polices. To overcome such difficulties, there is a need to accept and match between Basel II committee resolutions, and internal supervising parties point of views. Is such matching available? Due to lack of previous studies in Jordan. This study bridges the gap in the previous studies that reflect the international concern in Basel II committee resolution.

## **Statistical Analysis**

### **First: Sample Characteristics**

Analysis of study sample shows that males amounting 25 of the respondents consisting 62.5% of the total sample, while females were 15 consisting 37.5% of the total sample with respect to respondents educational level it was found that those who had B.Sc degree were 34 respondents that is 85% of the total sample, while the number of those who had M.Sc were 6 respondents consisting 15% of the total sample. 8 are working in risk departments, 12 are working in auditing and inspection department and 10 respondents are working in credit department, and the same number is working in operations department. With respect to respondents experience, 24 respondents (60%) experience ranges between 1-5 years, while 16 respondents (40%) had an experience that exceeds five years. With regard to bank nationality 30 respondents are working in Jordan banks, 7 respondents are working with Arab banks and the rest are working in foreign banks.

**Table 2: Classification of Respondents by Gender, Experience and Educational Level**

| Variable         |            | Frequency | Percentage |
|------------------|------------|-----------|------------|
| Gender           | Male       | 25        | 62.5       |
|                  | Female     | 15        | 37.5       |
| Qualification    | B.Sc.      | 34        | 85         |
|                  | MSc        | 6         | 15         |
| Department       | Risk       | 8         | 20         |
|                  | Inspection | 12        | 30         |
|                  | Credit     | 10        | 25         |
|                  | Operation  | 10        | 25         |
| Experience       | 1-5 years  | 24        | 60         |
|                  | 5+         | 16        | 40         |
| Bank Nationality | Jordanian  | 30        | 75         |
|                  | Arabic     | 7         | 17.5       |
|                  | Foreign    | 3         | 7.5        |

**Second: Descriptive Statistics for Research Sample**

Means and standard deviations were computed for Jordan banks implementation of Basel (2) committee resolution in internal control, taking into account that any statement whose mean is less than (3) means weak agreement, while any statements whose mean exceeds (3) means high agreement. Such results were based on the statements scale that its scores are ranging between (1-5). All means and standard deviations of questionnaire statements were computed and for each dimension separately as shown in Table 3.

**Table 3: Means & Standard Deviations of Internal Control Dimensions**

| No.    | Dimension                                      | Mean | SD.  | A.D  |
|--------|--|------|------|------|
| First  | Administrative Supervising and Control culture | 4.23 | 0.57 | High |
| Second | Risk Definition and Evaluation                 | 4.19 | 0.58 | High |
| Third  | Control activities & task separation           | 4.31 | 0.30 | High |
| Fourth | Information & communication                    | 4.34 | 0.60 | High |
| Fifth  | Operations following & errors correction       | 4.11 | 0.54 | High |
|        | Total Degree                                   | 4.21 | 0.45 | High |

*SD = Standard Deviation*

*AD = Agreement Degree*

Table 3 indicates that means and standard deviations of samples' responses are ranging between (4.11- 4.34). This means that samples agreement is high for all dimensions.

Analysis was made for each statement of the said five dimensions as follows:

**First: Administrative Supervision and Control Culture**

Table 4 shows statement no. (1) Has achieved the highest mean (4.47). Such mean is higher than (3) which indicate high degree of sample’s agreement. While statement (12) has obtained the lowest mean (4.03) which also is higher than (3) which indicate high degree of sample’s agreement. Other statements are arranged according to their scores as follows : (8, 11, 9, 3, 4, 6, 7, 10, 5, 13, 2), the respective means were as follows (4.10, 4.15, 4.17, 4.18, 4.23, 4.25, 4.25, 4.40, 4.43,). The total degree for the whole dimension amounting (4.23) which indicates the agreement of the sample.

**Table 4: Mean and Standard Deviation of Administrative Supervision and Control Culture Dimension**

| No. | Statement   | Mean | SD   | AD   |
|-----|---|------|------|------|
| 1   | Board of directors makes periodical review for work strategies and bank’s general policies.   | 4.47 | 0.85 | High |
| 2   | Board of directors makes periodical review of bank’s strategy fitness and risks limits.   | 4.43 | 0.84 | High |
| 3   | Board of director reassure that executive management had taken necessary steps to identify measure and control risks                                  | 4.18 | 0.68 | High |
| 4   | Board of director is interested in drawing managerial policies and organizational structure   | 4.18 | 0.78 | High |
| 5   | Executive Management achieves high success in implementing strategies approved by board of directors.   | 4.25 | 0.71 | High |
| 6   | Executive Management achieves high success in developing policies and operations related to identifying, measurement, and control risks the bank face | 4.23 | 0.73 | High |
| 7   | Powers and responsibilities are clear through effective communication system  | 4.23 | 0.77 | High |
| 8   | Bank enjoys with existing effective internal control system   | 4.10 | 0.55 | High |
| 9   | Executive Management supervises internal system efficiency  | 4.17 | 0.59 | High |
| 10  | Executive Management places internal control principles the responsibility of all bank’s employees.   | 4.25 | 0.74 | High |
| 11  | Executive Management establishes organizational culture that focuses on internal importance   | 4.15 | 0.86 | High |
| 12  | Executive Management informs all employees on their roles in internal control operations frame in writing.  | 4.03 | 0.89 | High |
| 13  | Executive Management enhances honesty standards in internal and external dealing procedures.  | 4.40 | 0.67 | High |
|     | Total Average   | 4.23 | 0.57 | High |

**Second: Risks definition and evaluation**

Table 5 shows that statement no. (15) has achieved the highest mean (4.33). Such mean is higher than (3) which indicate high degree of agreement amongst respondents instead of sample’s agreement.



While statement (18) has obtained the lowest mean (4.03) which also is higher than (3) which indicates high degree of agreement amongst respondents. Other statements are arranged according to their scores as follows : (17, 20, 19, 16, 14), the respective means were as follows (4.13,4.15,4.18,4.22,4.27.). The total degree for the whole dimension amounting (4.49) which indicates the agreement of the sample.

**Table 5: Mean and Standard Deviation of Administrative Supervision and Control Culture Dimension**

| No. | Statement   | Mean | SD   | AD   |
|-----|---|------|------|------|
| 14  | Executive Management identifies all risks that the bank may face.                           | 4.27 | 0.64 | High |
| 15  | Executive Management classifies all risks in terms of its impact on banking activity.       | 4.33 | 0.69 | High |
| 16  | Executive Management identifies risks that could be controlled and the non controlled ones. | 4.22 | 0.62 | High |
| 17  | Risk evaluation process considers the cost and benefit principle.                           | 4.13 | 0.79 | High |
| 18  | Risks evaluation is continuously made   | 4.03 | 0.71 | High |
| 19  | Risks evaluation is made from lower work lines up to the general activities                 | 4.18 | 0.78 | High |
| 20  | Executive Management places procedures quickly to face the risks.                           | 4.15 | 0.77 | High |
|     | Total Average   | 4.18 | 0.58 |      |

### **Third: Control Activities and Tasks Separation**

Table 6 indicated that statement no. (21) has obtained the highest mean (4.60). Such mean is higher than (3) which indicate high degree of sample's agreement. While statement (24) has obtained the lowest mean (4.15) which also is higher than (3) which indicate high degree of agreement amongst respondents. Other statements are arranged according to their scores as follows: (27, 23, 26, 25, 22), the respective means were as follows (4.18, 4.28, 4.28, 4.30, 4.38). The total degree for the whole dimension amounting (4.31) which indicates the agreement of the sample.

### **Fourth: Information & Communication**

Table 7 indicates that statement no. (28) has obtained the highest mean (4.50). Such mean is higher than (3) which indicate high degree of sample's agreement. While statement (32) has obtained the lowest mean (4.17) which also is higher than (3) which indicates high degree of sample's agreement. Other statements are arranged according to their scores as follows: (30, 31, 29), the respective means were as follows (4.30, 4.35, 4.37). The total degree for the whole dimension amounting (4.34) which indicates the high degree of agreement of the sample.

### **Fifth: Operations Following and Imperfection Correction**

Table 8 indicates that statement no. (33) has obtained the highest mean (4.28). Such mean is higher than (3) which indicates high degree of sample's agreement. While statement (38) has obtained the lowest mean (3.90) which also is higher than (3) which indicates high degree of sample's agreement. Other statements are arranged according to their scores as follows: (35, 41, 39, 40, 37, 34, 36), the respective means were as follows (3.98, 3.98, 4.05, 4.15, 4.18, 4.20, 4.25). The total degree for the whole dimension amounting (4.11) which indicates the high degree of agreement of the sample.

**Table 6: Mean and Standard Deviation of Administrative Supervision and Control Activities and Tasks Separation**

| No. | Statement   | Mean | SD   | AD   |
|-----|---|------|------|------|
| 21  | Periodical reports that are presented to Executive Management contribute in control procedures success.                                   | 4.60 | 0.50 | High |
| 22  | Power distribution overall different managerial levels contributes in improving internal control procedures.                              | 4.38 | 0.49 | High |
| 23  | Controls that prevent any access to tangible assets are available.  | 4.28 | 0.45 | High |
| 24  | Executive Management efforts in complying with certain standards such credit focuses contribute in improving internal control procedures. | 4.15 | 0.36 | High |
| 25  | Administrating of Ceilings and its special authorizations limited by executive management improves internal control procedures.           | 4.30 | 0.46 | High |
| 26  | Procedures of solving problem that relates to informing on quick intervening improves internal control procedures.                        | 4.28 | 0.60 | High |
| 27  | Executive Management is interested to apply tasks separation principle and avoid any contradiction task for the same employees.           | 4.18 | 0.68 | High |
|     | Total Average   | 4.31 | 0.30 |      |

**Table 7: Mean and Standard Deviation of Administrative Supervision and Information and Communication**

| No. | Statement  | Mean | SD   | AD   |
|-----|--|------|------|------|
| 28  | Availability of operational and financial internal information improves internal control procedures.   | 4.50 | 0.64 | High |
| 29  | Availability of sufficient awareness of Electronic information system users improves internal control procedures.                                    | 4.37 | 0.63 | High |
| 30  | Availability of different controls to be used in case of emergency ensures non stop work or losses.  | 4.30 | 0.72 | High |
| 31  | Control includes the existence of emergency plan to ensure work progress and to reduce the possibilities of equipment and electronic systems failure | 4.35 | 0.66 | High |
| 32  | There are effective channels that ensure all employees understanding of policies and procedures related to control system                            | 4.17 | 0.78 | High |
|     | Total Average  | 4.34 | 0.60 |      |

**Table 8: Means and Standard Deviations of Operations Following and Imperfection Correction**

| No. | Statement  | Mean | SD   | AD   |
|-----|--|------|------|------|
| 33  | Internal control system activities are considered as a part of bank daily duties.  | 4.28 | 0.72 | High |
| 34  | Periodical evaluation process of Internal control system are considered as a part of bank daily duties.                                  | 4.20 | 0.72 | High |
| 35  | Immediate intervention is appropriate to any**change in bank's internal and external environment.  | 3.98 | 0.70 | High |
| 36  | Internal control independence from executive management contributes in improving internal control procedures.                            | 4.25 | 0.59 | High |
| 37  | Employees work in Internal Control enjoys full authority to all records and documents of all bank's activities.                          | 4.18 | 0.68 | High |
| 38  | Employees working in internal control have good practical qualifications and experience.   | 3.90 | 0.98 |      |
| 39  | Employs work in Internal control field are independent.  | 4.05 | 0.88 |      |
| 40  | In internal auditing operations frame, the concerned distractive level is informed with any gaps or problems in internal control system. | 4.15 | 0.53 |      |
| 41  | Used Internal Control system conforms with risks nature that may occur.  | 3.98 | 0.66 |      |
|     | Total Average  | 4.11 | 0.54 |      |

## Hypothesis Test

### First Hypothesis

Jordan banks donot implement Basel II norms in internal control.

To test this hypothesis independent samples t- test was used, the results indicate that Jordan banks implement Basel II norms requirements in internal control, since T- calculated value was (17.21) which is more than t- table value (1.68) ..., therefore, the null hypothesis is rejected and the alternative one is accepted.

With respect to dimensions, results indicate that Jordan banks do implement Basel II norms for internal control (Administrative supervising and control culture, risks definition and evaluation, control activity and tasks seperation, information and communication, operation following and imperfection correction) since t- calculated for such test regarding these dimensions were (13.65, 12.88, 27.96, 14.10, 13.03). respectively, all of which are higher than table value of T (1.67).

### Second Hypothesis

There are no significant statistical differences in respondents averages score amongst banks of different nationality regarding the implication of Basel II norms for internal control.

To test this hypothesis ANOVA test was used, the results indicates that there are no significant statistical difference in respondents of banks from different nationalities regarding average scores, since F- calculated for such test was (0.9946) which is less than table value of F (3.23), therefore,

we accept the null hypothesis. With respect to dimensions results indicate that there is no significant statistical difference in respondents average scores due to bank nationality for all dimensions (Administrative supervising and control culture, risks definition and evaluation, control activity and tasks separation, information and communication, operation following and imperfection correction) since F calculated for such test regarding these dimensions were (1.03, 0.69, 0.56, 0.65, 1.03). respectively, all of which are less than discussion table value of F (3.23).

## Results

Generally, Basel II norms represent opportunities and challenges for Jordan and international banks, since their efforts and attempts in raising banking risk management culture, reducing its fluctuations, reducing Basel principles provisions and banking operations bosses.

Findings revealed that Jordan bank do implement Basel II norms related to internal control in all of its following dimensions:

\*Administrative supervising, control culture, risks definition and evaluation, control activities and tasks separation, information and communications, separation following and imperfection correction. So they are qualified to benefit of such implementation results. Such results match with Castro (2006) interpretations which indicate that giving supervising parties and internal auditing group a broad role to develop their special methods, and not to force them to use it, will contribute in achieving better matching with Basel II norms.

\*Results do not reveal any significant nationality on the extent of implementing Basel II norms. It seems that availability of internal control systems and providing the same with work freedom shall not be limited only to Jordan banks but the existence of Arab, and foreign banks in Jordan. The intensive competition between banks and the similarity of works, methods regarding banking credit, using electronic equipment and central bank supervising is the reason of non-existence of such differences.

**Table 9: Results of T- test**

| Dimension  | Mean | SD.  | T Calculated | T- tabulated | df | Sig    |
|--|------|------|--------------|--------------|----|--------|
| Administrative supervising and control culture   | 4.23 | 0.57 | 13.65        | 1.68         | 39 | 0.0001 |
| Risk definition and evaluation                   | 4.18 | 0.58 | 12.88        | 1.68         | 39 | 0.0001 |
| Control activities and tasks separations         | 4.31 | 0.30 | 27.56        | 1.68         | 39 | 0.0001 |
| Information and communications                   | 4.34 | 0.60 | 14.10        | 1.68         | 39 | 0.0001 |
| Operations following and imperfection correction | 4.11 | 0.54 | 13.03        | 1.68         | 39 | 0.0001 |

\*\* Less than 0.01

## Recommendation

It is difficult to consider that implementation of Basel's committee resolution had achieved high success for Jordan banking systems, since depending on internal control system to risk management has its special warnings according to the previous literature review.

As a result, this study recommends the necessity that banking loans portfolios should be tested by external credit agencies and not depend only on internal control operations.

**Table 10: Results of Second Hypothesis Test**

| Field   | Variance Source | Sum of Squares | df | Square mean | F- C | F - T | Sig   |
|---|-----------------|----------------|----|-------------|------|-------|-------|
| <b>Administrative Supervising and Control Culture</b> | Between Groups  | 0.67           | 2  | 0.34        | 1.03 | 3.23  | 0.368 |
|   | Within Groups   | 12.05          | 37 | 0.33        |      |       |       |
|   | Total           | 12.72          | 39 |             |      |       |       |
| <b>Risk Definition and Evaluation</b>                 | Between Groups  | 0.45           | 2  | 0.23        | 0.69 | 3.32  | 0.529 |
|   | Within Groups   | 12.83          | 37 | 0.35        |      |       |       |
|   | Total           | 13.27          | 39 |             |      |       |       |
| <b>Control Activities and Task Separation</b>         | Between Groups  | 0.10           | 2  | 0.05        | 0.56 | 3.32  | 0.578 |
|   | Within Groups   | 3.31           | 37 | 0.89        |      |       |       |
|   | Total           | 3.41           | 39 |             |      |       |       |
| <b>Information and Communication</b>                  | Between Groups  | 0.51           | 2  | 0.25        | 0.65 | 3.32  | 0.508 |
|   | Within Groups   | 13.59          | 37 | 0.37        |      |       |       |
|   | Total           | 14.10          | 39 |             |      |       |       |
| <b>Operations following and Errors Correction</b>     | Between Groups  | 0.59           | 2  | 0.30        | 1.03 | 3.32  | 0.366 |
|   | Within Groups   | 10.64          | 37 | 0.29        |      |       |       |
|   | Total           | 11.23          | 39 |             |      |       |       |
| <b>Total Degree</b>                                   | Between Groups  | 0.38           | 2  | 0.19        | 0.95 | 3.32  | 0.397 |
|   | Within Groups   | 7.49           | 37 | 0.20        |      |       |       |
|   | Total           | 7.87           | 39 |             |      |       |       |

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