# The Factors Affecting the Use of Financial Derivatives' Instruments

# An Applied Study on the Jordanian Commercial Banking Sector

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**Abstract**

Purpose: The study aims at identifying the factors affecting the use of instruments of financial derivatives such as (administrative factors, financial and accounting factors, and legal factors) in the Jordanian commercial banking sector. To achieve the objective of the study, a questionnaire was distributed to the financial managers of the sample under examination and analysis, in addition to finding the descriptive variables, correlations and regression through using the SPSS and E-views software. The study adopted the analytical descriptive approach. A questionnaire was designed and distributed to a number of directors and heads of sections of commercial banks of Jordan, which their number reached 13 banks. One of the most important findings of the study is that there is an impact of each of the administrative, financial, accounting and legal factors on the use of the financial derivatives' instruments.

**Keywords**: financial derivatives, administrative factors, financial and accounting factors, legal factors

## 1. Introduction

The commercial banking sector is considered one of the main pillars in the financial sector. It influences and is influenced by the local and international economic and financial conditions.

The work mechanism of this sector is based on linking the economic units of financial surpluses with economic units of deficit, by providing financial instruments that constitute diversified investment opportunities, in line with tendencies and trends of investors towards profit and risk and thus contribute to providing suitable investment alternatives that keep up with technological developments in the field of finance and business.

As a result of these developments, the financial sector has to manage and mitigate the investment and financial risks. This has justified the need to create modern financial instruments other than traditional ones to avoid these risks and maintain their financial gains, provided that they are properly used in accordance with administrative, financial and accounting and legal factors governing the mechanism of dealing with them.

Therefore, it was necessary to focus on the impact of these factors (administrative, financial, accounting, and legal) to use the financial derivatives' instruments.

### *1.1 The importance of study*

The importance of the study stems from the importance of financial innovations in the financial markets and the increasing interest in financial derivatives as effective instruments in risk management, which is reflected positively on the conditions of their dealers.

The importance of the study is also highlighted by the importance of the interrelated relationship between the variables, which appear to be separate, but they are one unit that affects the use of financial derivatives' instruments.

### *1.2 Objectives of the study*

The objectives of the study can be summarized as following:

1- Identify the basic concepts of financial derivatives and their types.

2- Identify the effect of administrative factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

3- Identify the effect of financial and accounting factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

4- Identify the effect of legal factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

*1.3 The Problem of the Study*

The problem of the study can be summed up in answering the following questions:

1- Is there an impact of the administrative factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector?

2- Is there an impact of the financial and accounting factors on the use of financial derivatives' instruments in the Jordanian banking sector?

3- Is there an impact of the legal factors on the use of financial derivatives' instruments in the Jordanian banking sector?

*1.4 Hypotheses*

The main hypothesis: There is no statistically significant impact at the level of ($\alpha \leq 0.05$) of the administrative, financial and accounting and Legal factors combined, on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

The following sub-hypotheses are derived from the main hypothesis:

H01: There is no statistically significant impact at ($\alpha \leq 0.05$) level of administrative factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

H02: There is no statistical significant impact at ($\alpha \leq 0.05$) level of the financial and accounting factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

H03: There is no statistically significant impact at ($\alpha \leq 0.05$) level of legal factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

**2. The Methodology**

*2.1 Study population*

The study's community consists of all Jordanian commercial banks operating in the Jordanian economy and listed on the Amman Stock Exchange that are 13 commercial banks. (Amman Stock Exchange, 2018).

*2.2 Methodology*

The study adopted the descriptive analytical method where a questionnaire was designed and distributed to a number of managers and heads of departments in Jordanian commercial banks.

*2.3 Resources of Data*

1) Secondary Sources: The study was based on books and periodicals, the web and previous literature.
2) Primary sources: The study relied on the questionnaire as a main tool to obtain data from the sample of the study. (100) questionnaires were distributed on the sample of the study. 94 of the total number of responses was retrieved, which constitutes 94 %, and this ratio is considered to be good because it is reliable in generalizing the results of the study.

*2.4 Theoretical Framework and Previous Studies*

Financial derivatives: They are contracts whose value is derived from the value of the underlying asset. The assets of the contract vary between financial assets such as (stocks, bonds, currencies and market indexes), or real assets (agricultural products, metals), which derivative investment instruments arise from them and do not require initial investments or Initial amount compared to contract value. (Al-Swailem, 2008) (Abdel-Aal, 2001). This indicates that financial derivatives have an economic importance, (Hindi, 2003) represented in:

1. Provide investment opportunities for speculators.

2. Provide a better opportunity for planning and regulating cash flows.

3. Provide coverage service against the risks of price fluctuations.

4. It is a tool to detect the expected price in the present market.

(Aal Suleiman, 2005) and (Al-Douri and Aqel, 2012) pointed out that traders in financial derivatives can be classified into two categories: the first category consists of end users such as banks, insurance companies, investment companies, investment funds and pension funds. The second category is brokers and market makers such as investment companies and banks active in the global markets.

Risks and Advantages of dealing with financial derivatives: Financial derivatives have a range of risks: (Al Douri and Aqel, 2012)

1- Market risks: they are linked to unexpected fluctuations in the prices of derivatives contracts resulting from volatility in the prices of underlying assets or because of lack of liquidity, which leads to the deterioration of the prices of some assets.

2- Credit risks: they are resulted from the failure of one of the parties to meet its financial obligations and they are considered one of the most prevalent risks in non-regular stock exchanges, which require assessing the credit worthiness of the parties.

3- Organizational risks: they are losses resulting from the absence of documentation in the contract and the absence of internal control related to the preparation of financial reports.

4- Regulatory risks: they are risks arising from the weakness of the system of supervision and internal control of employees in banks and other institutions dealing in the derivatives market.

5- Legal risks: they are risks arising from a legal act that invalidates the contract or prevents the end users from performing it.

Despite previous risks, derivatives have some advantages that many speculators are encouraged to deal with (Mattar and Tim, 2005).

1- Benefit from the advantages of financial leverage achieved by the so - called margin method, and thus create big opportunities to generate huge profits through the fluctuations in the prices of the original financial instruments covered by their contracts.

2- A hedging instrument that allows its holder to protect himself from the effects of volatility, i.e. the possibility of using it as a speculative instrument and at the same time a hedging instrument against the investment risks that arise from the risks of fluctuations of exchange rate or interest rates.

Types of financial derivatives: The financial derivatives have four types represented in: Options contracts, Forward contracts, Future contracts and Swaps. (Cutbertson and Nitzsche, 2001) (Hull, 2012)

1- Option contracts: contracts between two parties that give the holder the right to buy or sell a particular asset (securities, commodities or currencies) at a fixed price known as the execution price and at a specified time agreed upon at the time of the contract. (Chisholm, 2010)

(Mcmillan, 2002), (Lanier, 2009) and (Maher and Marwan, 2004) pointed out that the options are divided into two basic types:

A) Purchase option: a contract between two parties (buyer and writer) granting the buyer the right and not the obligation to purchase the contractual asset on the basis of a specified price and a specific date agreed upon at the moment of the contract.

B –Sale option: a contract between two parties (buyer and writer) granting the buyer the right and not the obligation to sell the contractual asset at a specified price and within a specified period agreed upon at the moment of the contract, to be executed on the date of termination of the contract for the European option, or during the period of validity of the contract for the American option.

2- Forward contacts: An agreement between two parties on the delivery of a particular commodity or currency at a later date and at specified specifications, according to a specific exchange rate, such as gold and oil (Kolb and Overdahl, 2003).

3- Futures contracts: A mutual legal obligation between two parties, which obliges one to hand the other, or receives from him, through a third party (broker), a specific quantity of a particular asset or commodity to a specific place, time and price.

4- Swaps: A contractual agreement by an intermediary between two or more parties to swap obligations or rights, and the types of swaps are: (currency swap contracts, interest rate swap contracts, commodity swap contracts).

Previous studies:

The subject of financial derivatives was discussed in many foreign and Arabic studies. On the foreign level, (Nandy and Chattopadhyay ,2014) study examined the effect of introducing various financial derivatives' instruments such as( Forward contracts, stock indices, stock index options, currencies forward contracts and forward interest rate contracts) in India on the volatility of the stock market for the period (1996 - 2012) for the sectors operating in the Indian stock market. The study concluded that the introduction of derivatives in the form of forward contracts, stock indices, stock index options and forward interest rate contracts is successful in reducing the Stock market volatility in India. While the forward contracts of currencies have a destabilizing effect on the stability of the stock market in India.

The (Bartram et.al, 2011) study aimed at demonstrating the impact of derivatives on the risks and value of the company through the use of a sample of non-financial institutions of 47 countries. The study reached that the use of financial derivatives reduces overall and systemic risks and that the impact on the value of the company is a positive one, but companies need to hedge against the decline risks.

The (Shu and chen, 2003) study highlighted the main obstacles of using the financial derivatives of companies listed on the Taiwan Stock Exchange for the period 1997-1999. It found that the percentage of using the derivatives in Taiwan ranged between 31% -37%. It also found that companies focus on using currency and derivative contracts. It pointed out that the vital impediments to financial derivatives are the use of volume, the ratio of long-term debt to total debt, and that there is concern and lack of experience in the use of derivatives.

The (Berkman et al, 2002) study aimed at clarifying the relationship between the use of financial derivatives' instruments and the characteristics of industrial companies and mining companies in Australia for a sample of 158 companies (106 industrial companies and 52 mining companies) by studying their financial report in 1995. The study reached the results, the most important of which is that the size of the company and the degree of financial leverage are the main explanatory variables for the use of financial derivatives in industrial companies and mining.

As on the Arab level, the (Khalida, 2015) study aimed at identifying the role of financial derivatives in covering the market risks of North America, Europe and Asia for the period 2012-2014. The researcher adopted the analytical descriptive approach to reach the results, which the most important was that financial derivatives are used in managing the risks Which the institution faces, especially the interest rate risks, exchange rates and stock price risks.

The (Khalifa, 2009) study aimed at examining the factors influencing the decision to adopt using the financial derivatives for all Saudi shareholding companies for the period from 2002 to 2007 by examining the relationship between (financial leverage degree, company size, market value, liquidity and cash distribution ratio) and the decision to adopt the use of financial derivatives. Through the multiple regression analysis, the study concluded that there is a statistical significant relationship between the degree of leverage, total assets and the current ratio and the decision to adopt the use of financial derivatives.

The (Soda, 2006) study aimed at identifying the legal, technical, tax and legitimate aspects of organizing optional contracts in the financial markets, in addition to understanding the ability to working with optional contracts in the Palestinian financial market. The study reached a set of results, the most important was that the wide spread option contract of buying or selling enables its parties of achieving a return within an acceptable level of risk, and there are warnings of misusing it, as well as that Fiqh scholars need to reach the best models for economic transactions.

**3. The Statistical Methods Used in the Study**

The (SPSS) and (E-views) programs were used in the analysis of the study data. Many tests were used, so that each test corresponds to the purpose of using it. These tests were as following:

* Descriptive statistics where the arithmetic mean was used as a measure of central tendency, and the standard deviation as a measure of the dispersion of data from its arithmetic mean.

* Autocorrelation test between errors in the regression equation expressed in (Durbin-Watson) value. (Hasnawi, 2002)

* The correlation test to measure the strength and direction of the relationship between the variables, and the Pearson Correlation Matrix was used.

* The simple and multiple regression models were used to study the effect of independent variables on the dependent variable.

## 4. Statistical Analysis and Testing the Hypothesis

### *4.1 Descriptive Analyses*

Table 1. Descriptive analysis of administrative factors

| Std. D | Mean | Paragraph |
|---|---|---|
| 1.34 | 2.66 | The Bank is not interested in the knowledge and knowing of using financial derivatives' instruments. |
| 1.09 | 3.59 | The banking sector does not have the intention to establish specialized departments in the field of financial derivatives. |
| 1.00 | 3.73 | The rarity of training courses for employees to acquire the expertise and technical knowledge required in the use of financial derivatives. |
| .978 | 3.89 | The bank faces difficulty in marketing the financial derivatives. |
| 1.20 | 2.85 | Lack of internal incentives for innovators in financial derivatives field. |
| .883 | 4.19 | The absence of stock exchange rules that allow easy trading and instant control over the risks of dealing with derivatives. |
| .863 | 4.14 | The absence of a free market, characterized by transparent, fairness and disclosure. |
| .883 | 4.19 | The absence of designed models for derivative contracts in a manner that would limit the manipulation of these contracts. |
| .982 | 3.88 | Lack of specialized human cadres to deal with these instruments at Jordanian banks. |
| 1.21 | 3.68 | Shortage of the number of financial derivatives' instruments used in the Arab financial markets. |
| .976 | 3.81 | Lack of awareness of the importance of these instruments in the market and the identifying their contracts. |
| 1.05 | 3.86 | Shortage of the number of dealers in financial derivatives' instruments in the Jordanian market. |
| .960 | 3.88 | The absence of private entities directing the dealers with the financial derivatives. |
| .875 | 4.14 | Absence of an effective system for monitoring performance and the use of derivatives that get selected. |
| .946 | 4.20 | Lack of an advanced technological environment to facilitate the clearing process of complex derivatives. |
| | 3.77 | General mean |

Table (1) shows the results of the descriptive analysis (Arithmetic average and standard deviation) of the first independent variable, which are the administrative factors. The general average of the sample response was (3.77) which indicates the convergence of respondents' responses to the administrative factors that affect the use of financial derivatives' instruments such as lack of technological environment, derivatives models, stock exchange rules and a free market characterized by disclosure.

Table 2. Descriptive analysis of financial and accounting factors

| Std. D | Mean | Paragraph |
|---|---|---|
| .925 | 3.94 | The Bank faces a problem in providing the necessary liquidity to finance the dealing with financial derivative instruments. |
| .812 | 4.17 | The use of financial derivatives' instruments is on the medium and long-term which increases bank investment risks. |
| .849 | 3.99 | The difficulty to determine the asset value at the beginning of the contractual period, especially in cases of inflation and instability of exchange rate. |
| .885 | 4.23 | The inability to liquidate the contract, derived when necessary, with the least possible losses. |
| 1.22 | 2.67 | There is no party for clearing and settlement, of the financial derivatives, that reduces the risks of using financial derivatives. |
| .752 | 4.19 | The Bank does not guarantee the disruption by the second party of the financial derivatives contracting. |
| .752 | 4.19 | Profit and loss fluctuation is associated with the use of financial derivatives. |
| 1.07 | 3.72 | The shortage of liquidity of the financial market as a whole. |
| .883 | 4.19 | The bank does want to change its investments assets. |
| 1.09 | 2.64 | The bank faces difficulty in the accounting demonstration process of the derivatives contracts in its books. |
| 1.21 | 3.68 | The lack of reserves and necessary provisions to cover the financial risks related to those transactions. |
| | 3.78 | General mean |

Table (2) refers to the second independent variable which is financial and accounting factors at an average of (3.78). This indicates that respondents' responses to the financial and accounting factors affecting the use of financial derivatives' instruments are similar. The most important of these factors is the inability to liquidate derivatives contracts in the sense of cost and time associated to this process. Among other factors are the risks associated with dealing with these instruments, such as the disruption of one party of the contract's parties or the volatility of the profits of these instruments.

Table 3. Descriptive analysis of legal factors

| Std. D | Mean | Paragraph |
|---|---|---|
| .946 | 4.20 | There is no Jordanian law of dealing with financial derivatives to regulate the relationship between the parties of the contract. |
| .863 | 4.14 | The fear of disputes that do not apply to appropriate laws, and thus use alternative laws. |
| 1.00 | 3.73 | Absence of legislative framework covering the aspects related to financial derivatives that limits the ability of dealing with them. |
| 1.21 | 3.68 | There is no quick and effective measures in the case of disruption of the contract's parties. |
| .875 | 4.14 | There is a judicial party to execute urgent matters in the case of disruption of the agreement of the contract. |
| .948 | 3.94 | There is no a supervisory authority to apply laws related to cases of financial derivatives. |
| .976 | 3.81 | There is no legal knowledge in the field of dealing with financial derivatives at the bank administration. |
| .878 | 4.13 | The shortage of specialized human cadres to legally deal with cases of financial derivatives. |
| | 3.97 | General mean |

Table (3) shows the results of the descriptive analysis of the third independent variable represented by the legal factors affecting the use of financial derivatives' instruments at an average of (3.97). This indicates the convergence of the averages of the sample responses on these factors, the most important of which is the absence of a Jordanian law regulating transactions in derivatives.

Table 4. Descriptive Analysis of the Use of Financial Derivatives' Instruments

| Std. D | Mean | Paragraph |
|---|---|---|
| .849 | 3.99 | The banking sector does not deal with purchase options contracts in its banking investments. |
| .976 | 3.81 | The banks face difficulty in using selling options contracts in the banking investments. |
| 1.09 | 3.59 | The banking sector does not deal with Forward contracts in the currencies. |
| .982 | 3.88 | The banks avoid dealing with future contracts in any of its investment instruments. |
| .948 | 3.94 | The banks avoid dealing with currency swap contracts in swapping their currencies or loans. |
| .752 | 4.19 | The banks does not use swap contracts in interest rates. |
| | 3.9 | General Average |

While table (4) indicates the results of the descriptive analysis of the dependent variable represented by the use of financial derivatives in the Jordanian commercial banking sector. The general average of the sample of respondents reached (3.9), which is close to the average of all respondents that the banking sector avoids the use of swaps and options contracts and currency swap contracts in its investments due to the factors mentioned in the analysis of the Arithmetic averages of each of the administrative, financial and accounting and legal factors.

*4.2 Pearson Correlation Matrix*

Table 5. Results of Pearson correlation matrix test

| | Y | X1 | X2 | X3 |
|---|---|---|---|---|
| Y | 1 | | | |
| X1 | 0.815224 | 1 | | |
| X2 | 0.710528 | 0.836372 | 1 | |
| X3 | 0.824771 | 0.896617 | 0.823701 | 1 |

Where: X1: Administrative factors. X2: Financial and accounting factors. X3: Legal Factors Y: Using financial derivatives' instruments

Table (5) presents the results of Pearson correlation matrix analysis between the independent and dependent variables represented in (administrative factors, financial and accounting factors, legal factors) and (the use of financial derivatives in the Jordanian commercial banking sector). And it is clear that the correlation coefficients between the independent variables and the dependent variable are all positively related.

For example, the correlation between administrative factors and the use of financial derivatives reached (0.815), and reached (0.823) between the financial and accounting factors and legal factors. This indicates that all the variables of the study act as a one unit in influencing the use of the financial derivatives, but they have been dealt with partially to administrative, financial and accounting and legal factors to reach the goal of the study

*4.3 Testing Hypotheses of the Study*

4.3.1 The main hypothesis: There is no statistically significant impact of the administrative, financial and accounting and legal factors, combined, on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

Table 6. Results of the main hypothesis test Dependent Variable (Y)

| Method: Panel ELS Least Squares | | | |
|---|---|---|---|
| Variables | Coefficient | T-Test | P- Value(Probability) |
| X1 | 0.461165 | 2.859629 | 0.0053 |
| X2 | 0.492116 | 2.962351 | 0.0240 |
| X3 | 0.453269 | 3.621780 | 0.0005 |
| ($R^2$):70% | | | |
| DW : (2.0363) | | | |
| Probability: 0.0000 | | | |

Where: X1: Administrative factors. X2: Financial and accounting factors. X3: Legal Factors. Y: Using financial derivatives' instruments

Table (6) presents the results of the multiple regressions related to the main hypothesis of the study. The value of Durbin-Watson reached (2.0363), which indicates that there is no autocorrelation among the errors in the regression equation.

The results of the analysis also indicated that the value of Probability reached (0.000) which means accepting the alternative hypothesis that says there is an impact of the administrative, financial and accounting and legal factors, combined, on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

And that the impacts of the independent variables have a high explanatory power for the dependent variable as the $R^2$ coefficient explained 70% of the change in using the financial derivatives.

Reaching such an outcome indicates that the strategies adopted in the banking sector are similar in moving towards the desired investment opportunities on one hand and the cash flows on the other hand, which is reflected positively on the wealth of the owners and stakeholders and the value of the share, while at the same time avoiding the use of financial derivatives' instruments because of many administrative, financial, accounting and legal factors that affect their use, and these factors were mentioned in the descriptive analysis.

4.3.2 First sub-Hypothesis: There is no statistically significant impact of administrative factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

Table 7. Results of testing the first sub-hypothesis Dependent Variable (Y1)

| Method: Panel ELS Least Squares | | | |
|---|---|---|---|
| Variable | Coefficient | T-Test | P- Value(Probability) |
| X1 | 0.943943 | 13.50155 | 0.0000 |
| ($R^2$):66% | | | |

X1: Administrative Factors, Y: Use of financial derivative instruments

Table (7) presents the result of the simple regression test related to the first sub-hypothesis. It shows the rejection of the null hypothesis and the acceptance of the alternative hypothesis which states that there is a statistically significant impact of the administrative factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector. It also indicates that the explanatory power of the dependent variable reached (66%). This result explains the fact about the existence of administrative factors that stand in the way of workers in the Jordanian commercial banking sector, which prevents them from using financial derivatives' instruments, as indicated in Table (1).

4.3.3 Second Sub-hypothesis: There is no statistically significant impact of the financial and accounting factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

Table 8. Results of testing the second sub-hypothesis Dependent Variable (Y1)

| Method: Panel ELS Least Squares | | | |
|---|---|---|---|
| Variable | Coefficient | T-Test | P- Value(Probability) |
| X2 | 0.738926 | 9.685167 | 0.0000 |
| ($R^2$):50% | | | |

X2: Financial and Accounting Factors, Y: Use of financial Derivative Instruments

Table (8) shows the results of the simple regression test related to the second sub-hypothesis. It shows the rejection of the null hypothesis and the acceptance of the alternative hypothesis which states that there is a statistically significant impact of the financial and accounting factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector. The explanatory power of this dependent variable reached (50%).

This result indicates the respondents' agreement that there are financial and accounting factors that stand in the way of the possibility of using the financial derivatives' instruments by the Jordanian commercial banking sector, as indicated in Table (2).

4.3.4 Third Sub-hypothesis: There is no statistically significant impact of the legal factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector.

Table 9. Results of testing the third Dependent Variable (Y1)

| Method: Panel ELS Least Squares | | | |
|---|---|---|---|
| Variable | Coefficient | T-Test | P- Value(Probability ) |
| X3 | 0.766623 | 13.99009 | 0.0000 |
| ($R^2$): 68% | | | |

X3: Legal Factors, Y: Using financial derivative instruments

Table (9) presents the result of the simple regression test related to the third sub-hypothesis. It shows the rejection of the null hypothesis and the acceptance of the alternative hypothesis which states that there is a statistically significant impact of the legal factors on the use of financial derivatives' instruments in the Jordanian commercial banking sector. The explanatory power of the dependent variable reached (86%).

This result also indicates that the sample under examination and analysis confirms the existence of legal factors affecting the ability of the banking sector to adopt financial derivatives' instruments in its investments. These factors are explained in Table (3).

Through testing the hypotheses above, the results indicated that administrative, financial, accounting and legal factors have an impact on the use of financial derivatives' instruments in the Jordanian commercial banking sector, and this reflects the lack of desire of administrative leadership in the Jordanian commercial banking sector to use financial derivatives' instruments in investments due to the factor mentioned above.

This results are consistent with both (Shu and Chen, 2003) and (Soda, 2006) studies. However, these results are not consistent with the findings of the (Nandy and Chattopadhyay, 2014), (Bartram, et al, 2011) and (Khalifa, 2009) studies.

## 5. Conclusions and Recommendations

### *5.1 Conclusions*

1- The Jordanian commercial banks face a number of administrative factors which constitute an obstacle to the adoption of financial derivatives' instruments in the Jordanian commercial banking sector, notably the lack of awareness of the importance of these instruments, the lack of clear and specific rules of work in the stock exchange that allow easy dealing and avoid taking risks.

2- The commercial banking sector is considered the cornerstone of the Jordanian financial system. Therefore, it is concerned with the full knowledge of financial derivatives' instruments used in the financial markets. Therefore, it was necessary to train the employees on the mechanism of using these instruments and the risks of dealing with them, through establishing independent departments whose task is to use financial derivatives' instruments.

3- Respondents sample indicated that there are financial and accounting factors affecting the use of financial derivatives' instruments. The most important of these is that the liquidation of the derivative contract accompanied by the cost and time incurred by the bank.

4- The Jordanian commercial banking sector does not face difficulties if it wants to deal with financial derivatives' instruments in terms of clearing and settlement, in addition to its ability to demonstrate them from an accounting point of view, as it is a sector characterized by attracting qualified cadres with knowledge in banking.

5- There are legal factors that constitute an obstacle for banks to adopt derivative instruments such as fear of a conflict that does not apply to the provisions of the laws.

*5.2 Recommendations*

1. Conduct more studies by identifying other factors such as political or social or economic factors, which may be the reason why the banking sector does not adopt financial derivative instruments in the optimal size.

2. Encourage the banking sector to use financial derivatives' instruments with providing all the requirements it needs.

3. Conduct more courses and training programs for employees in the banking sector in addition to providing software that follow up on with the huge development in the technology of money and business.

4. Establishing a government committee whose task is related to the instruments of financial derivatives of legislation, clearing, settlement and others.

5. Making appropriate amendments to the laws and regulations to provide protection to the dealer with financial derivative instruments.

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