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THE IMPACT OF ISLAMIC FINANCIAL ENGINEERING ON RISK MANAGEMENT IN ISLAMIC BANKS FOR A SAMPLE OF GULF BANKS

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Abstract:.

Engineering Finance field Take advantage in it Knowledge And competencies Areas Other Most importantly Mathematics And economy And information To study the information in a way Scientific Deep help On Take Decisions Investment Without Adventure And exposure For risks Fluctuations Markets Stock Exchange.

Islamic banks have incorporated this concept into banking risk management while ensuring that Be Products Islamic Assent Of Islam The largest Saucepan Maybe, And This It includes Stay away Exit From Controversy Fiqh Saucepan As possible . As Not Target Basis From Industry Finance Islamic Weighting Opinion He is a priest On else, And But Reach to me Solution Innovative Be Shop an agreement Saucepan Possible . And on him Should that We will not beginning between Circle What he is permissible Sharia, And between What Aspiring mechanism Industry Islamic . The industry Islamic Aspiring For products And Mechanisms Typical that Right Expression . While Circle The project Include What may is being Typically Scale age The present, And What Not As well . Reason that Shara came For everyone in a Each Zaman, And Circumstances Individuals And Communities Vary And Vary.

Search problem : Despite the breadth And multiplicity Tools Investment Available in a Markets the money, Which led to an increase liquidity market, And availability More FromFinance About Road Attract Investors new ones And provide Opportunities New For researchers About Which he called for funding Igga d (Risk Management Instruments) ,Enable From Re distribution Love Finance According to For preferences Investors Risk.

The hypothesis of research : The research starts from the hypothesis that financial engineering has a positive impact on risk management.

Research objectives : Seeking to achieve a set of goals, including:

1 .Understand the concept of financial engineering and its impact between the benefits and risks.
2 -Statement of the relationship between financial engineering and risk management.
Structure of research : The research is divided into two parts. The first side is the theoretical and reference aspect of the study and defines the concept of financial engineering and risk, while the second aspect focuses on the practical aspect .

First - the theoretical framework and reference for the study:

1- Definition of financial engineering : For financial engineering many definitions and we will shorten the mention of the most important The International Association of Financial Engineers has defined financial engineering as the process of developing and applying innovative financial theory and financial instruments to find solutions to complex financial problems and to exploit financial opportunities. Financial engineering is not a tool, but the profession that uses tools . [1]
Islamic Financial Engineering : " A set of activities that includes the design, development and implementation of innovative financial instruments and processes, as well as the formulation of creative solutions to financing problems, all within the framework of the Shari'a guidelines ." [2]
And it can be defined as the process of financial engineering to design or development of financial instruments or the development of new tools in order to overcome the problem of financing, and include the following points: [3]
Creating new financial instruments .
Creating new financing tools .
Innovate new solutions and develop existing tools and solutions into new tools and solutions .

2 - **Financial engineering between risk and interest**: Although more than a quarter of a century after dealing financial engineering instruments, but specialists and traders are still divided and clearly to have fled the directions as disabilities The first team sees wary of dealing Bhdh new tools and not to deal with them at all because of the large risks that are accompanied by , The other team is more optimistic where he sees that this technology through the available tools are key to solving many of the problems and difficulties faced by traders in the financial markets through the possibility of their use in risk management effectively because of its high flexibility and the great diversity where, and most of these benefits we mention the most important : [4]
- Dealing with conventional financial engineering tools is less expensive than dealing with basic assets such as equities and bonds , Etc.
- Financial institutions, banks and investors can generally hedge against potential risks by using less money than if they bought assets that appear in the budget .
- Reduce costs for exporters and investors and raise revenues and expand financing alternatives range and investment and reduce the risk of loss if done well management Tha.
- Strengthening the services provided by the financial and banking institutions to customers and T contributed to building a more diversified financial portfolio , As there is a lot The forces and catalysts that affect modern finance are the most

important of the regrouping of the gravity of the mechanism adopted with the return , Modern portfolio theory confirms the correlation test between these two variables and identifies the set of tools that are included in the installation process to reduce the risk of the portfolio. Equation(1) illustrates the formula that calculates the portfolio's risk (as a variable) and plays a major role in the modern financial world . [5]

Equation (1)

$$\sigma_p^2 = \sum_{i=1}^{K} x_i^2 \sigma_i^2 + 2 \sum_{i<j}^{K} x_i x_j \sigma_{ij}$$

Where:

$\sigma^2 p$ = Represents the portfolio risk of assets k Measured by variable.

$\sigma^2 i$ =Represents the risk associated with the model assets i Measured by variable.

σij =Represents the variable coefficient of the asset i And j In the wallet.

Xi, Xj =Weights for assets i And assets j In the wallet.

That weights Above is very necessary as the result of her to reduce the risk of the portfolio composition In such a system (risk and return) , there is one way to avoid an investor's risk is the low cost of return. If the return is large, the risk is also significant. On the contrary, if the return is low, the risk is low . For example, if someone bought yesterday a stock at a price 500 Today it is sold at a price 510 The difference between these two prices is 10 Which represents the real profit but does not consider this profit as a large investment, but if the return is calculated according to the percentage and transfer (2 %) , It is a good strategy , as illustrated in the following equation

Equation

$$Rt = \frac{(Pt - Pt\text{-}1)}{Pt\text{-}1} * 100 \qquad (2)$$

Where:

Rt = Represents the percentage of return.

Pt = The share price represents the current period.

Pt-1 = The share price represents the previous period .

3- Financial Engineering and Risk Management : The uses of Islamic financial architecture in risk management and hedging can not be limited because of their complexity and then because they do not adhere to the restrictions except those that we referred to when we touched on the foundations of Islamic financial engineering . However, we can generally divide the uses of Islamic financial architecture into risk management into two parts, the first of which uses conventional Islamic contracts . [6]

Ie, contracts named in Islamic jurisprudence, and the second uses modern contracts (such as Islamic derivatives and securitization) , which is still debated over the extent of its legitimacy originally [7] .

II . Practical aspect

In order to verify the basic research hypothesis, this is verified by the following two hypotheses :

The following zero hypothesis :

H0 : No significant effect of financial engineering on risk management

Versus the alternative hypothesis

H1 : There is a significant positive effect of financial engineering in financing the following table shows the statistics and the values of parameters and tests required for the regression model used as the following:

And it was Use Results Test t-test For a statement Energy And direction Relationship between Variables According to the questionnaire, 80 forms were distributed, 64 forms were retrieved indicating the importance of the research and 80% , She came Results On As follows :

Table (1) Results Test t-test Applied On Paragraphs of resolution To test Relationship between Predictors of bank crises and new trends in the banking industry .

variable	The degree of freedom	Arithmetic mean	standard deviation	Coefficient of correlation	sig	The result
EngineeringFinance And managementLove	80	3. 23 4. 5	0.53 0.4 7	0.90	0.02	Acceptance

Source: From the work of the researcher , depending on the program spss

Suggest Results table theprevious to

me Existence Relationship Engagement Positive Strong What between Study indicators and based on the views of the study sample at a significant level (α≤. 0.05) Where she

was Values (t) Calculated Top From Worth Table At Degree Morality (0.01) Thus We accept Hypothesis Which Supports ExistenceRelationship What Between financial engineering and risk management .

Conclusions and recommendations:

1- The study reached Results Emphasizes Existence Relationship Engagement Positive Strong What between Indicators of the study reached a significant degree (α≤. 0.05)It wasValues (t) Calculated Top From Worth Table At Degree Morality (0.01) And so on I accepted the study Hypothesis Which Says With Relationship What Between financial engineering and crisis management .

Recommendations

1. Addressing the organizational and administrative problems of the banking system through the development of management and information systems that ensure the accuracy of the data and information system to be a permanent defense line in the implementation of macroeconomic policies in time of crisis .

Sources:

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[1] - Abdul Kareem Kunduz, Islamic Financial Engineering, King Abdul Aziz University Journal of Islamic Economics, Vol . 20 , No. 2 , Saudi Arabia, 2007 , p . 10.

[2] - Fatah Al-Rahman Ali Muhammad Saleh, " **Islamic Money Market Instruments : Introduction to Islamic Financial Engineering,** " Journal of Banking, No. 26 , December 2002 , Bank of Sudan, Khartoum,

[3] http//:www.bankofsudan.org/arabic/period/masrafi/vol_26/masrafi_26.htm (20/05/2006)).

[4] - Hashem Fawzi Dabbas Al-Abbadi, Financial Engineering and Tools, Al-Warraq Publishing and Distribution, Amman, Jordan, 2008 , p 110.

[5] - Fabozzi, FJ, " **Bond Markets: Analysis and strategies** ", 3 rd end, Prentice - Hall International, 1996 , p92

[6] Traditional contracts here are contracts used in ancient times, **ie contracts in Islamic jurisprudence** .

[7] - Fabozzi, F. J., opcit, p93.