The role of employees’ empowerment on risk management: An application on Libyan banks

Iman Elhusadi (a), Yavuz Demirel (b)

(a,b) School of Business, Business and Management, Kastamonu University, Kastamonu, Turkey

Abstract

The Libyan economy under the influence of current political risks is resulted in a sudden halt in petroleum products following the revolution followed by a halt in major economic activities. The banking sector was not immune to these current economic risks therefore, the banking sector faced non-financial and financial risks. Our study focuses on human resources with a high level of talent and skills and their role to overcome the banking risks faced by the Libyan banking sector. This is of great importance as the first study addressing the empowerment of human resources in effective risk management in the banking sector, especially in Libya. To achieve the objective of the study the questionnaire method was used to collect data, the survey was distributed to 320 employees and six banks operating in the eastern part of Libya were selected as targets to investigate the risks faced by the banking system as a result of the current political crisis. The result of the research demonstrated there is a positive and statistically significant relationship between the dimensions of employees’ empowerment and effective risk management. It was seen that issues such as training, incentives, and participation, sharing of authority, teamwork for employees are important in risk management. In addition, the risk management and strengthening of human resources among the banks in Benghazi and Al Bayda have been found to differ in their dimensions. The findings in this study seem to be consistent with many findings in the literature.

Keywords: Employees’ empowerment, Liquidity risk, Credit risk, Market risk, Operational risk, Risk management

JEL Classification: G21 O15

Introduction

It is no secret to prepare for and deal with what can happen in social and economic life. This has become customary, especially in political, economic or financial events, as risks play every role in the history of people and societies, both in terms of destruction and construction. If we look at the course of important historical events, we see that risks have been an important stage in people's lives for centuries, and there are new stages of risk between each stage due to the growth and development of societies, the lack of various resources, and the intensity of political and economic competition that prolongs the life of risks. People have begun to seriously consider examining and analysing risks trying to avoid risks with the least harm or to minimize subsequent risks that cannot be avoided. Therefore, risk management is the solution to the unexpected problems that could lead to disaster if not solved quickly, because the risk is, any event that is or expected to lead to, an unstable and dangerous situation affecting an individual, a group, institution or a whole society. Apart from natural risks that are inherently unpredictable (volcanic eruptions, tsunamis) most of the risks that we face are created by humans. Commercial banks in most Libyan cities are facing a risk of cash shortage, with the Libyan dinar continuing to depreciate and falling to its lowest levels against foreign currencies which is a historic decline. The direct cause of this crisis or risk is that large depositors withdrew a lot of their cash deposits in Libyan banks, which led to a liquidity crisis. The risk of liquidity shortage in Libyan banks cast a shadow over the overall social situation in Libya and created tragic conditions. The crisis of liquidity shortage and different types of risks that faced the Libyan banks are the most severe risks and crises affecting the country's economy. Employees' empowerment is one of the key factors in developing the management capacity of individuals to cope with the risks facing the organizations and in light of these current risks, which are going through the Libyan economy and its various institutions especially banks, there is an urgent need from these institutions and departments to allow employees’
empowerment to overcome these risks. So the Libyan government must be attentive to develop the skills of the employees and providing resources, possibilities and training them, to increase their effectiveness, because of the necessary need for these qualified and effective individuals and empower them for overcome the risks, which are exposed to economic institutions financial and non-financial currently. Employees’ empowerment is defined as improving the capabilities of employees through various means and methods to enable them to perform their work independently.

The problem of the study can be summed up in the answer to the following questions: what is the role of employee empowerment in risk management efficiently in Libyan commercial banks?

The main objective of this study is to investigate the risks that facing Libyan commercial banks in the Eastern Province and study the role of employees’ empowerment in managing these risks and in helping the banks to overcome it. And to provide some recommendations and suggestions that help Libyan commercial Banks. The study can also achieve a set of sub-goals such as examine the relationship and effect of efficiency between employees’ empowerment and risks management. And to examine the relationship and effect of efficiency between employees’ empowerment and liquidity, market, credit, and operational risk management in Libyan commercial banks.

The theoretical importance of the study is reflected in the banking risks facing the Libyan commercial banks and the role of empowering employees in managing these risks. The study can also be used to enrich scientific research in the field of study and develop appropriate solutions. The importance of the study can be summarized as follows: Providing more clear information to the Libyan commercial banks that are likely to benefit from their results. To highlight some of the obstacles facing training programs in the Libyan commercial Banks. Providing local and Arabic libraries with a new study on the subject of the current study. And this study is the only one studies in Libyan that deals with the subject of the study with its different variables.

In addition, in terms of implementation: This study is expected to benefit in the following categories: Employees and managers: in Libyan commercial banks can benefit from this study by highlights and concentrating on the human resources competencies and improving their performance and enabling them to overcome the risks and that facing the banking sector. And researchers: They can review this study once it is completed, in order to identify its findings in order to assist them in research and development with other variables related to the subject of the study.

**Literature Review**

**Conceptual framework**

Employees’ empowerment is a good and modern subject that reflects the development of human resources. And empowerment is one of the latest and most important approaches to administrative reform in developed countries. Although there are many studies in this field, there is no specific definition of empowerment. There are many definitions according to researchers in this field. Conger and Kanugo's definition in 1988 of empowerment is the process by which the individual is assured of his or her own abilities to perform his or her duties and tasks, and to increase psychological motivation, self-efficacy by identifying and eliminating the factors and conditions that have caused the employee's inability. Potterfield (1999) defined empowerment as to enhance the capabilities of the employees so that they have the internal inspiration for issuing judgments, assessments, and discretion in the cases facing them in the exercise of their duties, as well as their full participation in the decisions related to their works.

*Liquidity Risk:* Liquidity risk is among the most significant risks to commercial banks represented by the inability to meet payment requests by a depositor party, these risks have made banks in an urgent need for tools to manage them, and this has necessitated the emergence of mechanisms designed to provide innovative solutions that help to provide protection; and greater efficiency in liquidity risk management (Abdel Hamid, 2001).

*Credit Risk (Loans Risk):* Gestel and Baesens (2008) point to credit risk as to the borrower's inability to repay the debt so an inability to meet debt obligations. Credit risk can occur when the counterparty is unable to pay on time or is unable to pay in full.

*Market Risk:* It refers to the risks resulting from the price movements in markets such as share prices, interest rate prices, foreign exchange rates prices, and essential goods prices, which affect and reflected on the financial portfolio of the bank (Christoffersen, 2012). We can define the market risk as a change in market price or market value that will have an adverse effect on financial condition, the performance in the institution or other financial outcomes on that institution. state that they can be defined as risks arising from dealing in markets as a result of changes in economic policies.

*Operational Risk:* Basel II Committee defines operational risk as "direct and indirect loss risk arising from the internal processes, performance of individuals, improper or failed systems, or external accidents (Al-Beltagy, M. 2005).

*Risk management:* The function of risk management in banks involves examining banks’ banking operations from credit risk, market risk, liquidity risk, operating risk, and other risks. Are these risks within the permissible range or not? Iqbal and Mirakhor (2011) indicate that reducing the exposure to the risks facing banks and achieving progress and improving their competitiveness within the market can only be achieved through a strong risk management framework within these banking institutions. The survival and success of the banking sector depend critically on the competency of managing these risks. We can conclude from previous studies that risk
management is all the procedures undertaken by the management of banks in order to put an end to the negative effects resulting from those risks (credit risk, market, operating, liquidity).

Empirical studies
The current study has been put out within two dimensions for employee’s empowerment to manage banking risk in Libya, the dimensions were: Training, motivate and participate; And the delegation of power and teamwork, and procedure comparison between banks and the eastern cities in the empowerment of employees and management of banking risks efficiently. The researcher has identified four banks risks: liquidity risk, market risk, credit risk, and operating risk. The current study is similar to these studies, Areiqat (2010) study, Mehmet (2018), Areiqat and Zamil (2011), Abu Ghneim and Jawad (2012), Afana (2013), and Qatawneh (2016), in terms of the study of empowerment, and differ from the present study in the selection of specific dimensions for empowerment to investigate its relationship to the dependent variable. Areiqat (2010) focused on the listed dimensions of empowerment (granting confidence, opportunities, decision-making, training, and a flexible structure that allows the transfer of authority and responsibility) and found that there is an impact of empowerment in crisis management, while Areiqat and Zamil (2011) focused on relevant three variables; providing information, having leadership predicting the future from past incidents, and communicating, as the dimensions of empowerment in crisis management, and also the Abu Ghneim and Jawad (2012) demonstrated to the following empowerment factors (participation, clarity of purpose, teamwork, appreciation, and recognition) in the management of the marketing crisis, and they found the most important factors of empowerment were participation and clarity of purpose, and the least enabling factors were teamwork, appreciation, and recognition, this is in contradiction with our study which demonstrates that empowering employees through incentives, recognition and teamwork leads to efficient banking risk management. Afana, (2013) emphasized that the level of empowerment through the following dimensions: communication, information exchange, team building, influence, the motivation of staff, and authority, in international NGOs was high in addition to the efficiency of teams was high. Qatawneh (2016) emphasized empowerment through the crisis management teams. Roger (2005) also emphasized the evolution of information systems in crisis management and developed a model that measures the degree for crisis planning. The Nanto study (2008) emphasized the need for the central bank to intervene through its monetary policy to face financial crises by changing some monetary variables. This contradicts the current study in terms of using the idea of allowing and enabling human resources to face financial and non-financial risks. Several studies have examined the relationship between empowerment and other management factors such as job satisfaction, organizational discrimination, and organizational behavior. Here, these studies differ with the current study in terms of the relationship of empowerment to the dependent variable. As in the Mehmet, (2018) study, which emphasized delegation of authority, free choice as two dimensions of empowerment and its positive relationship to job satisfaction, and also Alnwaigah (2014) identified teamwork as a dimension of empowerment which has a positive impact on organizational discrimination, in addition to Carter’s study (2009), he argues that the power of empowerment is linked to organizational behavior and productivity empowerment also supports innovation and participation in decision-making and is therefore reflected in productivity. This result is consistent with the current study in that it focuses on participation in decision-making and thus reflected positively in the efficiency of banking risk management. Hempel, Zhang, and Han (2012) found that organizations should support the idea of empowerment through teamwork and decentralization and their study emphasized the importance of the organizational structure as a precedent for empowerment. Smith (2000) emphasized personal qualities and their impact on teamwork dimension to make better decisions, this finding is consistent with one of the findings of this study. Mathai (2002) on other hand sees the needs for staff training and skills to intervene in crisis management, and this supports the current study on the need for training as an essential component of empowerment in crisis and banking risk management.

Other studies were focused on the risk such as a study of Al-Tamimi & Al-Mazrooei, (2007) the study showed that UAE banks are effective in risk management, the most important variables in risk management practice are techniques of risk identification, risk assessment, and risk analysis. This is partly in line with the current study in which the Libyan banks used risk assessment technology to effectively manage banking risk, as well as Kanchu, Thand Kumar study (2013) in terms risk management using techniques, whereas Wekesa, (2015) study found a positive correlation between liquidity risk and financial performance, while Oludhe (2011) study found a strong impact of credit risk management using the CAMEL approach to financial performance. From previous studies, we stated that this study was considered different from other studies, and it is only the first study conducted in Libya to study employees’ empowerment with different variables, and it is believed that the results obtained from the study will provide important evidence to managers of banking and non-banking in Libyan institutions.

Methodology of the Study
The researcher used several methods, in the following order: Firstly, the researcher used the analytical approach by using statistical analysis software SPSS to obtain reach results and recommendations from the study. Secondly, the researcher used the descriptive approach in order to obtain information from various Arabic and foreign references periodicals, articles and reports relevant, where that is the appropriate method to describe and review the theoretical framework. Thirdly, data were collected from primary sources through a questionnaire that was developed to serve the objectives of the study, finally, this study based on the quantitative approach to verify the hypotheses of the study as well as its questions and reach its results, where the aim of this study is to describe the phenomenon studied, to identify the problem or to justify the circumstances and practices.
Study Tool and Data Collection method

The preliminary questionnaire technique was used to answer the study questions, hypotheses and to serve the purposes and objectives of the study, the researcher developed this questionnaire based on previous studies.

Stability Study Tool

The researcher also investigated the stability of the study tool by using the Cronbach Alpha test to calculate the consistency stability, as stated in the previous studies as a criterion for the stability of the study, (Miller, 2013) explained that if it was higher than the value of the standard (60%) the questionnaire is good and can be adopted and used.

Data Collection

The current study is twofold, theoretical and practical. In the theoretical side, the researcher relied on scientific studies /thoughts that are related to the current study. Whereas on the practical side, the researcher relied on descriptive and analytical methods using the practical manner to collect, unload, analyse data and test hypotheses. The researcher used a questionnaire that was designed for the purposes of this study by referencing previous studies in the same field and modified some of the paragraphs.

Study Population and Sample

The study population consists of a group of Libyan commercial banks, their number is six of total Libyan banks in Eastern cities of Libya. The sample included two groups of employees in (the middle management of each bank) represented by the managers of management and staff in these managements. The sample size according to (Krejie and Morgan, 1970), and it was randomly chosen in order to reach the goals and objectives of this study.

Statistical Methods

The researcher has developed the questionnaire to achieve the purposes of this study and divided the questionnaire into several sections, and used (Likert) approach in the scale level to answer each statement according to determine five levels: (Strongly Agree) (take 5 degrees), (Agree) (take 4 degrees), (Neutral) (take 3 degrees), (Disagree) (take the two degrees), (Strongly Disagree) (take only one degree). And the data collected from the responses of the study questionnaire that was unloaded, analysis through the statistical package for the social sciences (SPSS), the researcher used the suitable statistical methods that consist of:

- Factor analysis: It is a technique for reducing data, analysis takes a large set of variables and summarizes them into a smaller set of components or factors, by looking for groups or ‘clumps’ among the intercorrelations of a set of variables.
- Reliability: To confirm the internal consistency, harmony and homogeneity of the questionnaires' phrases by using Cronbach's (α) test.
- Descriptive statistics: Using repetitive distributions tables to display the study variables in the form of frequencies and percentages, which help in the understanding, the explaining and interpret the variables.
- Measures of central tendency: By using mean and standard deviation to test importance levels.
- Percentage and frequency: To test importance and weight.
- Correlation: To clarified the strength and direction the relationship between independent variables and dependent variables of the study.
- Multiple Regression analysis: To measure the impact between study variables and to test the direct effects.
- Analysis of group variance using Independent-Samples-Test: To compare variability in two dimensions of independent variables and the dependent variables, in the two cities (Al-Baidha and Benghazi).
- Analysis of group variance using a one-way (ANOVA) test: To compare in two dimensions of independent variables and dependent variables, and to identify if there were statistically significant differences between in independent variables in dependent variables with regard to banks' groups.
- Multiple Comparisons (Scheffe test): Post-hoc comparisons using the Scheffe test to identify the position of specific differences.
- AMOS of path analysis; to measure the impact of the independent variable on dependent variables.

Model of the Study

The independent variables, dependent variables and sub-variables in this study can be defined in the following form:
Findings and Discussions

The Libyan commercial banks under the study: The commercial banks under study, which included commercial banks operating in the Eastern region where the number of bank departments was six out of eighteen banks, due to the emergency circumstances at the time of study on the Libyan west, that stood a hindrance to study banks in the west of Libya. The banks under study are Al-Wahda bank, General Administration / Benghazi; National Commercial Bank, General Administration / Al-Bayda; Al- Ajmaa Al- Arabi Bank, General Administration/ Benghazi; Trade and Development Bank, General Administration / Benghazi; Al-Jumhouria Bank, Management of branches of the Eastern Region/Benghazi; Mediterrane Bank, General Administration/Benghazi; Based on the data and indicators issued by the administrations of the mentioned banks, the study population was identified in these banks as follows: The Al-Wahda bank (1027) workers; the national commercial bank (420) workers; the bank of the Arab consensus (192) workers; Trade and development bank (147); Al-Jumhouria bank (118) workers and the bank of Mediterranean (53) workers. So, the total size of the study population (1957) becomes an employee. Based on the table presented by (Krejie and Morgan, 1970), the sample size was determined with (320) workers according to the following table.

| No | Name of the bank            | City       | Number of workers | Study size | The questionnaires exclude | The questionnaires include | The questionnaires are | Respondent ratio% |
|----|------------------------------|------------|-------------------|------------|---------------------------|---------------------------|-----------------------|------------------|
| 1  | The Al-Wahda bank            | Benghazi  | 1027              | 166        | 162                       | 8                         | 154                   | 48.0%            |
| 2  | The national commercial bank | Al-Bayda   | 420               | 67         | 62                        | 4                         | 58                    | 18.0%            |
| 3  | The Ajmaa Al-Arabi bank      | Benghazi  | 192               | 32         | 32                        | -                         | 32                    | 10.0%            |
| 4  | Trade and development Bank   | Benghazi  | 147               | 26         | 26                        | -                         | 26                    | 8.0%             |
| 5  | Al-Jumhouria bank            | Benghazi  | 118               | 19         | 19                        | 1                         | 18                    | 6.0%             |
| 6  | The Mediterrane bank         | Benghazi  | 53                | 10         | 10                        | 1                         | 9                     | 3.0%             |
|    | Total                        |            | 1957              | 320        | 313                       | 16                        | 297                   | 93%              |

Factor analysis: We used exploratory factor analysis technique to reduce data, it is included in SPSS. And we reached to smaller number of variables, before using data in other analyses such as correlation, multiple regression and analysis of variance and testing the hypotheses, we verified the reliability and validity of the study scale we had displayed it as follow:

Efficient liquidity risk management scale: it has two dimensions are Factor 1named: the censorship and the qualified staff; and Factor 2 named: the strategy and the measurement. A principal component factor analysis (Varimax with Kaiser Normalization) was conducted on the 16 items. The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO =.915. Two factors in combination explained 52.386% of the variance. Results indicate that the scale is valid.

Efficient market risk management scale: it two dimensions are Factor 1 named: the monitoring and measurement; and Factor 2 named: the strategy. A principal components factor analysis (Varimax with Kaiser Normalization) was conducted on the 12 items. The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO =.823. Two factors in combination explained 51.810% of the variance. Results indicate that the scale is valid.

Efficient credit risk management scale: it two dimensions that are Factor 1 named: censorship and qualified staff; and Factor 2 named: polices and strategies. A principal components factor analysis (Varimax with Kaiser Normalization) was conducted on the 16 items. The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO =.927. Two factors in combination explained 59.364% of the variance. Results indicate that the scale is valid.
Efficient operational risk management scale: it two dimensions that are Factor 1 named: the strategy and the measurement; and Factor 2 named: the censorship and the qualified staff. A principal components factor analysis (Varimax with Kaiser Normalization) was conducted on the 16 items. The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .933. Two factors in combination explained 59.457% of the variance. Results indicate that the scale is valid.

Human resources empowerment scale: it two dimensions, Factor 1 named: training, incentives and participation for individuals; and Factor 2 named: delegation of power and teamwork. A principal components factor analysis (Varimax with Kaiser Normalization) was conducted on the 15 items. The Kaiser–Meyer–Olkin measure verified the sampling adequacy for the analysis, KMO = .924. Two factors in combination explained 68.318% of the variance. Results indicate that the scale is valid.

Scale’s internal consistency refers to the degree to which the items of the scale “hang together”. The most commonly used indicators are Cronbach’s alpha. The scales had a good reliability, Cronbach’s α = .902, .845, .923, .936, .934 respectively. Results indicate that the scales can be used in measurement of the indicated variables.

Confirmatory Factor Analysis: After exploratory factor analysis was conducted, a confirmatory analysis was performed by AMOS. The explanations regarding the goodness of fit of structural equation modeling are given below (Kandemir, 2019; Civelek, 2018; Karagöz, 2017; Hu and Bentler, 1999):

| Compliance Indexes | Good Fit | Acceptable Compliance | Compliance Indexes |
|--------------------|----------|-----------------------|--------------------|
| CMIN/DF            | ≤3       | ≤5                    | CMIN/DF            |
| RMSEA              | ≤0.05    | ≤0.08                 | RMSEA              |
| GFI                | ≥0.90    | ≥0.85                 | GFI                |
| AGFI               | ≥0.90    | ≥0.85                 | AGFI               |
| NFI                | ≥0.95    | ≥0.90                 | NFI                |
| CFI                | ≥0.97    | ≥0.90                 | CFI                |
| TLI                | ≥0.95    | ≥0.90                 | TLI                |

| Variables          | χ²       | Sd  | χ²/sd | GFI  | CFI  | TLI  | RMSEA |
|--------------------|----------|-----|-------|------|------|------|-------|
| Acceptable Criteria| ≤5       |     |       | ≥85  | ≥90  | ≥90  | ≤0.08 |
| Liquidity          | Risk     | 259,595 | 103 | 2.52 | 0.896 | 0.919 | 0.906 | 0.072 |
| Management         | Market   | 131,728 | 47  | 2.803| 0.932 | 0.932 | 0.905 | 0.078 |
| Credit             | Risk     | 251,079 | 101 | 2.486| 0.898 | 0.943 | 0.932 | 0.071 |
| Management         | Operational | 287,562 | 101 | 2.847| 0.892 | 0.931 | 0.919 | 0.079 |
| Human Resources    | Empowerment | 226,227 | 86  | 2.631| 0.912 | 0.95  | 0.939 | 0.074 |

Result of test hypotheses:
The hypotheses of the study and the analyses used to test the hypotheses are presented in the table below.
| Hypotheses                                                                 | Utilized Analysis                  |
|---------------------------------------------------------------------------|-----------------------------------|
| H1: There is statistically significant relationship between employee’s empowerment and efficient risks management | Correlation Analysis             |
| H1a: There is statistically significant relationship between employee’s empowerment and efficient liquidity risk management. |                                    |
| H1b: There is statistically significant relationship between employee’s empowerment and efficient market risk management |                                    |
| H1c: There is statistically significant relationship between employee’s empowerment and efficient credit risk management. |                                    |
| H1d: There is statistically significant relationship between employee’s empowerment and efficient operational risk management. | Correlation Analysis             |
| H2: There is statistically significant impact of employee’s empowerment on efficient risks management. | Regression Analysis              |
| H2a: There is statistically significant impact of employee’s empowerment on efficient liquidity risk management. | Structural Equation Analysis      |
| H2b: There is statistically significant impact of employee’s empowerment on efficient market risk management. |                                      |
| H2c: There is statistically significant impact of employee’s empowerment on efficient credit risk management. |                                      |
| H2d: There is statistically significant impact of employee’s empowerment on efficient operational risk management. |                                      |
| H3: There are statistically significant differences in employee’s empowerment in risks management between the two cities (Al-Baidha and Benghazi). | T-Test                            |
| H3a: There are statistically significant differences in training, incentives and participation for individuals (EMF1) between the two cities (Al-Baidha and Benghazi). |                                      |
| H3b: There are statistically significant differences in delegation of power and teamwork (EMF2) between the two cities (Al-Baidha and Benghazi). |                                      |
| H3c: There are statistically significant differences in efficient liquidity risk management between the two cities (Al-Baidha and Benghazi). |                                      |
| H3d: There are statistically significant differences in efficient market risk management between the two cities (Al-Baidha and Benghazi). |                                      |
| H3e: There are statistically significant differences in efficient credit risk management between the two cities (Al-Baidha and Benghazi). |                                      |
| H3f: There are statistically significant differences in efficient operational risk management between the two cities (Al-Baidha and Benghazi). | T-Test                            |
| H4: There are statistically significant differences in employee’s empowerment and in efficient risks management between the banks | ANOVA Schaffe Test                |
| H4a: There are statistically significant differences in training, incentives and participation for individuals (EMF1) between the banks. |                                      |
| H4b: There are statistically significant differences in delegation of power and team work (EMF2) between the banks. |                                      |
| H4c: There are statistically significant differences in efficient liquidity risk management between the banks. |                                      |
| H4d: There are statistically significant differences in efficient market risk management between the banks. |                                      |
| H4e: There are statistically significant differences in efficient credit risk management between the banks. |                                      |
| H4f: There are statistically significant differences in efficient operational risk management between the banks. |                                      |
The relationship between employee’s empowerment and efficient risks management

Table 5: Correlation between sub variables of employee’s empowerment and sub variables of efficient risk management

| Sub variables of human resource empowerment | EMF1 (1) Pearson Correlation | EMF2 (2) Pearson Correlation |
|--------------------------------------------|-------------------------------|-------------------------------|
| Employee’s empowerment F1(training, incentives and participation for individuals) (1) | .709** | 1 |
| Sig. (2-tailed) | .001 | .000 |
| N | 297 | 297 |
| Employee’s empowerment F2(delegation of power and teamwork) (2) | .709** | 1 |
| Sig. (2-tailed) | .000 | .001 |
| N | 297 | 297 |
| Efficient of liquidity risk management F1(the censorship and the qualified staff) | .479** | .505** |
| Sig. (2-tailed) | .000 | .001 |
| N | 297 | 297 |
| Efficient of liquidity risk management F2(the strategy and the measurement) | .416** | .447** |
| Sig. (2-tailed) | .000 | .001 |
| N | 297 | 297 |
| Efficient of market risk management F1(the monitoring and measurement) | .357** | .414** |
| Sig. (2-tailed) | .000 | .001 |
| N | 297 | 297 |
| Efficient of market risk management F2(the strategy) | .320** | .390** |
| Sig. (2-tailed) | .000 | .001 |
| N | 297 | 297 |
| Efficient of credit risk management F1(censorship and qualified staff) | .499** | .545** |
| Sig. (2-tailed) | .000 | .001 |
| N | 297 | 297 |
| Efficient of credit risk management F2(polices and strategies) | .360** | .334** |
| Sig. (2-tailed) | .000 | .001 |
| N | 297 | 297 |
| Efficient of operational risk management F1(the strategy and the measurement) | .552** | .581** |
| Sig. (2-tailed) | .000 | .001 |
| N | 297 | 297 |
| Efficient of operational risk management F2(the censorship and the qualified staff) | .555** | .639** |
| Sig. (2-tailed) | .000 | .001 |
| N | 297 | 297 |

** Correlation is significant at the 0.01 level (2-tailed).

Table (5), shows Pearson correlations between sub variables of employee’s empowerment and sub-variables of efficient risk management. Sub variables of human resource empowerment are positively and significantly correlated with sub-variables of risk management. Correlations ranged between .334 and .709, n = 297, p < .001.
Correlations between employee’s empowerment and efficient risk management as whole

Table 6: Correlation between employee’s empowerment and efficient risk management as whole

| Employee’s empowerment | Pearson Correlation | N  |
|------------------------|---------------------|----|
| Efficient liquidity risk management | .560** | 297 |
| Efficient market risk management | .460** | 297 |
| Efficient credit risk management | .538** | 297 |
| Efficient operational risks management | .661** | 297 |
| Efficient risk management | .678** | 297 |

**Correlation is significant at the 0.01 level (2-tailed).

Table (6) shows Pearson Correlations between variables of employee’s empowerment and risk management. Employees’ empowerment is positively and significantly correlated with pillars of efficient risk management: Efficient liquidity risk management; .560, Efficient market risk management; .460, Efficient credit risk management; .538, and Efficient operational risks management; .661, n = 297, p < .001. Employees’ empowerment is positively and significantly correlated with efficient risk management; .678 n = 297, p < .001. Hypotheses; H1a, H1b, H1c and H1d are all accepted, therefore, H1 is fully accepted.

Impact of Employee’s Empowerment on Efficient Risks Management

Regression analysis is used to test the impact of two sub variables of employee’s empowerment on outcomes of efficient risks management variables. Results are shown below.

Table 7: Summaries of regression analysis

| Independent Variables | Dependent Variables | R² | F       | B   | t    | P     | DW |
|-----------------------|---------------------|----|---------|-----|------|-------|-----|
| EMF1:(Training, incentives and participation for individuals) | Efficient liquidity risk management | .317 | 68.315*** | .248 | 3.634 | .000  | 2.054 |
| EMF2; (Delegation of power and teamwork) | | | | .360 | 5.266 | .000 | |
| EMF1:(Training, incentives and participation for individuals) | Efficient market risk management | .231 | 44.051*** | .128 | 1.761 | .079  | 2.019 |
| EMF2; (Delegation of power and teamwork) | | | | .381 | 5.258 | .000 | |
| EMF1:(Training, incentives and participation for individuals) | Efficient credit risk management | .266 | 53.267*** | .268 | 3.779 | .000  | 1.315 |
| EMF2; (Delegation of power and teamwork) | | | | .290 | 4.101 | .000 | |
| EMF1:(Training, incentives and participation for individuals) | Efficient operational risk management | .455 | 122.391*** | .260 | 4.261 | .000  | 1.666 |
| EMF2; (Delegation of power and teamwork) | | | | .465 | 7.602 | .000 | |

***p<0.001

Table (7) shows a summary of regression analysis. Employee’s empowerment with the first dimension; Training, incentives and participation for individuals, and employee’s empowerment with the second dimension; Delegation of power and teamwork are both statistically significant predictors of efficient liquidity risk management. The total variance explained by the model as a whole was
31.7%, F (2, 294) = 68.315, p < .001. EMF1 and EMF2 sub-variables recorded significant beta values (beta = .248 and .360 respectively, p < .001). Findings lead support to hypothesis H2a. Employee’s empowerment with the second dimension; Delegation of power and teamwork is the only statistically significant predictor of efficient market risk management. The total variance explained by the model as a whole was 23.1%, F (2, 294) = 44.051, p < .001. EMF2 sub-variable recorded significant beta value (beta = .381, p < .001). Findings lead partial support to hypothesis H2b. Employee’s empowerment with the first dimension; Training, incentives and participation for individuals, and employee’s empowerment with the second dimension; Delegation of power and teamwork are both statistically significant predictors of efficient credit risk management. The total variance explained by the model as a whole was 26.6%, F (2, 294) = 53.267, p < .001. EMF1 and EMF2 sub-variables recorded significant beta values (beta = .268 and .290 respectively, p < .001). Findings lead support to hypothesis H2c. Employee’s empowerment with the first dimension; Training, incentives and participation for individuals, and employee’s empowerment with the second dimension; Delegation of power and teamwork are both statistically significant predictors of efficient operational risk management. The total variance explained by the model as a whole was 45.5%, F (2, 293) = 122.391, p < .001. EMF1 and EMF2 sub-variables recorded significant beta values (beta = .260 and .465 respectively, p < .001). Findings lead support to hypothesis H2d. On the basis of this section results H2 is partially supported. partial accepted.

**Structural Equation Model:** After the regression analysis made according to exploratory factor analysis, structural equation model and research model were tested and the results are given in Figure (2).

![Figure 2: Structural equation model](image)

Structural equation model regression weights are given in Table (8)

| Path analysis                        | Non-standardized Forecasting | Standardized Forecasting | Std. Error | Critical Ratio | Significance |
|--------------------------------------|------------------------------|--------------------------|------------|----------------|--------------|
| Liquidity risk management            | Employee’s empowerment       | 0.570                    | 0.851      | 0.058          | 9.781        | ***          |
| Market risk management               | Employee’s empowerment       | 0.413                    | 0.822      | 0.052          | 7.97         | ***          |
| Credit risk management               | Employee’s empowerment       | 0.698                    | 0.823      | 0.064          | 10.852       | ***          |
| Operational risk management          | Employee’s empowerment       | 0.863                    | 0.902      | 0.068          | 12.65        | ***          |

*** It means very close to zero value.
As a result of the analysis of the structural equality model, it was found that employee’s empowerment is positively affected liquidity risk management, market risk management, credit risk management and operational risk management. The highest standardized coefficient estimation value was obtained from the impact of employee’s empowerment on operational risk management ($\beta = 0.902$). This finding shows that employee’s empowerment has the greatest impact on operational risk management.

**Analysis of group variances using independent samples T-Test and ANOVA**

A. **Independent Samples t-test (City as a variability factor)**

| Address   | Dimensions                                | N     | Mean   | T     | Sig(2-tailed) |
|-----------|-------------------------------------------|-------|--------|-------|---------------|
| Al-Baidha | Training, Incentives and participation for individuals | Equal variances assumed | 58    | 3.4713 | -1.32 | .186 |
| Benghazi  |                                           |       | 3.6258 | -1.19 | .235 |
| Al-Baidha | Delegation of power and teamwork          | Equal variances assumed | 58    | 3.4167 | -2.44 | .015 |
| Benghazi  |                                           |       | 3.6911 | -2.61 | .011 |
| Al-Baidha | Efficient liquidity risk management        | Equal variances assumed | 58    | 3.4635 | -2.84 | .005 |
| Benghazi  |                                           |       | 3.7084 | -3.13 | .002 |
| Al-Baidha | Efficient market risk management           | Equal variances assumed | 58    | 3.4670 | -2.36 | .019 |
| Benghazi  |                                           |       | 3.6635 | -2.33 | .022 |
| Al-Baidha | Efficient credit risk management           | Equal variances assumed | 58    | 3.7178 | -1.49 | .136 |
| Benghazi  |                                           |       | 3.8598 | -1.57 | .120 |
| Al-Baidha | Efficient operational risk management       | Equal variances assumed | 58    | 3.5302 | -1.57 | .117 |
| Benghazi  |                                           |       | 3.6822 | -1.57 | .120 |

Table (9) shows group statistics for two cities (Al-Baidha and Benghazi) in the six variables of the study. The highest mean value was observed in Benghazi group with regard to efficient credit risk management (3.86) while the lowest mean value was observed in Al-Baidha group with regard to delegation of power and teamwork (3.42).

An independent-samples t-test was conducted to compare training, incentives and participation for individuals for the two cities. There was no significant difference in scores for Al-Baidha ($M = 3.47, SD = .91$) and Benghazi ($M = 3.63, SD = .77$); $t (295) = -1.324, p = .186$, (two-tailed) with regard to training, incentives and participation for individuals. The magnitude of the differences in the means (mean difference = -.15, 95% CI: -.38 to .08) was very small (eta squared = .006). $H3a$ hypothesis was rejected. There was statistically significant difference in score for Al- Baidha and Benghazi with regard to delegation of power and teamwork, where the results indicated Al-Baidha ($M = 3.42, SD = .70$) and Benghazi ($M = 3.69, SD = .78$); $t (295) = -2.443, p = .015$, (two-tailed) with regard to delegation of power and team work. The magnitude of the differences in the means (mean difference = -.24, 95% CI: -.41 to .08) was small (eta squared = .03). $H3b$ hypothesis was accepted. There was statistically significant difference in score for Al- Baidha and Benghazi with regard to efficient liquidity risk management, where the results indicated Al-Baidha ($M = 3.46, SD = .51$) and Benghazi ($M = 3.71, SD = .61$); $t (295) = -2.840, p = .005$, (two-tailed) with regard to efficient liquidity risk management. The magnitude of the differences in the means (mean difference = -.24, 95% CI: -.41 to .08) was small (eta squared = .03). $H3c$ was accepted. There was statistically significant difference in score for Al- Baidha and Benghazi with regard to efficient credit risk management, where the results indicated Al-Baidha ($M = 3.47, SD = .58$) and Benghazi ($M = 3.66, SD = .57$); $t (295) = -2.368, p = .019$, (two-tailed) with regard to Efficient credit risk management. The magnitude of the differences in the means (mean difference = -.20, 95% CI: -.36 to .03) was small (eta squared = .02). $H3d$ was accepted. There was no statistically significant difference in score for Al- Baidha and Benghazi with regard to efficient credit risk management, where the results indicated Al-Baidha ($M = 3.72, SD = .61$) and Benghazi ($M = 3.86, SD = .66$); $t (295) = -1.495, p = .136$, (two-tailed) with regard to Efficient credit risk management. The magnitude of the differences in the means (mean difference = -.15, 95% CI: -.38 to .08) was very small (eta squared = .008). $H3e$ was rejected. There was no statistically significant difference in score for Al- Baidha and Benghazi with regard to efficient operational risk management, where the results indicated Al-Baidha ($M = 3.53, SD = .66$) and Benghazi ($M = 3.68, SD = .66$); $t (294) = -1.573, p = .117$, (two-tailed) with regard to Efficient operational risk management. The magnitude of the differences in the means
(mean difference = -.15, 95% CI: -.34 to .04) was very small (eta squared = .008). So H3f was rejected. On the basis of this section results H3 is partially supported.

B. To test the differences in human resources empowerment in risks management between the banks, (ANOVA) was conducted to compare variability in six variables study between banks’ groups and the results as the following:

|                          | Sum of Squares | Df | Mean Square | F     | Sig.  |
|--------------------------|----------------|----|-------------|-------|-------|
| Training, Incentives and participation for individuals | Between Groups | 2,722 | 5 | .544 | .853 | .514 |
|                         | Within Groups  | 185,802 | 291 | .638 |       |       |
|                         | Total          | 188,524 | 296 |       |       |       |
| Delegation of power and team work | Between Groups | 4,999 | 5 | 1,000 | 1.689 | .137 |
|                         | Within Groups  | 172,248 | 291 | .592 |       |       |
|                         | Total          | 177,247 | 296 |       |       |       |
| Efficient liquidity risk management | Between Groups | 4,702 | 5 | .940 | 2.722 | **.020** |
|                         | Within Groups  | 100,519 | 291 | .345 |       |       |
|                         | Total          | 105,221 | 296 |       |       |       |
| Efficient market risk management | Between Groups | 1,959 | 5 | .392 | 1.203 | .308 |
|                         | Within Groups  | 94,751 | 291 | .326 |       |       |
|                         | Total          | 96,710 | 296 |       |       |       |
| Efficient credit risk management | Between Groups | 9,793 | 5 | 1,959 | 4,948 | **.000** |
|                         | Within Groups  | 115,196 | 291 | .396 |       |       |
|                         | Total          | 124,990 | 296 |       |       |       |
| Efficient operational risk management | Between Groups | 4,461 | 5 | .892 | 2.073 | .069 |
|                         | Within Groups  | 124,824 | 290 | .430 |       |       |
|                         | Total          | 129,285 | 295 |       |       |       |

There was no statistically significant mean difference in training, incentives and participation for individuals between banks, where the results indicated, F (5, 291) = .853, p = .514, eta squared = .01 indicating a small effect (Cohen’s, 1988, pp. 284–7). So H4a hypothesis was rejected. There was no statistically significant mean difference in delegation of power and teamwork between banks, where the results indicated, F (5, 291) = 1.689, p = .137, eta squared = .03 indicating a small effect. So H4b hypothesis was rejected. There was statistically significant mean difference in efficient liquidity management between banks, where the results indicated F (5, 291) = 2.722, p = .020, eta squared = .04 indicating a small effect. So H4c hypothesis was accepted. There was no statistically significant mean difference in efficient market risk management between banks, where the results indicated F (5, 291) = 1.203, p = .308, eta squared = .02 indicating a small effect. So H4d hypothesis was rejected. There was statistically significant mean difference in efficient credit management between banks, where the results indicated F (5, 291) = 4.948, p < .001, eta squared = .08 indicating a medium effect. So H4e hypothesis was accepted. There was no statistically significant mean difference in efficient operational risk management between banks, where the results indicated, F (5, 290) = 2.073, p = .069, eta squared = .03 indicating a small effect. So H4f hypothesis was rejected.

Multiple comparison

Post-hoc comparisons using the Scheffe test: Post-hoc comparisons using the Scheffe test was conducted to identify the specific differences between the study variables as follows:

| Dep. Variable | (I) Bank                  | (J) Bank                  | Mean Difference (I-J) | Std. Error | Sig.   |
|---------------|---------------------------|---------------------------|-----------------------|------------|--------|
| Efficient liquidity risk management | National Commercial Bank | Wahda Bank                | -.18294               | .09055     | .539   |
|               | Mediterranean Bank        | -2.3328                   | .21056                | .942       |        |
|               | Bank of Commerce & Development | -.34848            | .13871                | .280       |        |
|               | Jumhouria Bank            | -.33899                   | .15857                | .472       |        |
|               | Alejma’a Alarabi Bank     | -.40978                   | .12942                | .078       |        |
| Efficient liquidity risk management | National Commercial Bank | Mediterranean Bank      | -.05034               | .20155     | 1.000  |
|               | Bank of Commerce & Development | -.16555            | .12461                | .880       |        |
|               | Jumhouria Bank            | -.15605                   | .14640                | .951       |        |
|               | Alejma’a Alarabi Bank     | -.22684                   | .11418                | .558       |        |

Multiple comparison Post-hoc comparisons using the Scheffe test: Post-hoc comparisons using the Scheffe test was conducted to identify the specific differences between the study variables as follows:
One-way ANOVA was conducted and it found statistically significant mean differences in efficient liquidity risk management and efficient credit risk management between Banks. To find out the difference between banks more specifically, Post-hoc comparisons using the Scheffe test was applied and the result indicated that there was no statistically significant mean difference in efficient liquidity risk management between Banks. So, the hypothesis $H4c$ was rejected. Post-hoc comparisons using the Scheffe test indicated that in efficient credit risk management the mean score for the Mediterranean Bank group ($M = 2.93, SD = 1.04$) was
significantly different from National Commercial Bank group (M = 3.71, SD = .61), Wahda Bank (M = 3.86, SD = .64), Bank of Commerce & Development (M = 3.99, SD = .58), Junhouria Bank (M = 3.96, SD = .44) and Alejma’a Alarabi Bank (M = 3.96, SD = .63), p < .05. So H4e was accepted.

Conclusions

The study is limited to knowledge the role of employee’s in the management of banking risks (liquidity, market, credit and operational) as well as its dimensions and impact measurement, in addition to trying to know the differences between the cities, and the banks in the empowerment of employee’s in the management of banking these risks, with focusing on training, incentives and participation for individuals; delegation of power and teamwork as the empowerment dimensions. The human limitations: This study was limited to the various departments of the General Administration of commercial banks, and it included the directors and employees of the middle administration of Libyan commercial. The temporal limitations: This study was conducted during the 2017-2019 academic year. The spatial limitations: The study conducted in Libyan commercial banks, especially in the eastern cities of Libya, because these cities have security and political stability compared to the western region. And objectivity boundaries: The study focused on risks facing the banking and the reality of the empowerment of human resources in the banking sector under study and the relationship between employees’ empowerment and efficient risks management. Through the aforementioned results, the study concluded that a positive and statistically significant relationship between the dimensions of employees’ empowerment and effective risk management. And the study also showed that training, incentives, and participation, sharing of authority, teamwork for employees were important in risk management. In addition, the risk management and human resources empowerment among the banks in Benghazi and Al Bayda have been found to differ in their dimensions.

The human element is the basis in the processes production the goods and services. And modern equipment and devices no matter how sophisticated and difficulty will remain deficient if the human mind is not available to manage it. So, all economy sectors must seek to develop and strengthen the working human resources and enable them as a key step in the development of human resources as they the real wealth of the economy and the main pillar of the services progress, especially banking services. So, development efforts for human resources must include improving education raising the level of training and developing individual skills and capacities to provide productive human capacities capable of overcoming all risks that facing the banking sector and other sectors.

The reliance on scientific methods in detecting the weak points and strength in the banks operating in Libya in terms of market risks in the current economic conditions, and conduct studies aimed at increasing the efficiency of commercial banks in the management of various risks.

The careful to ensure the support of commercial banks when exposed to crises and risks, especially liquidity crisis through the monetary authorities, which will reduce the risk of liquidity.

Attention to the training of employees on risk management in general and how to prepare for crises and exit them with minimal losses by joining with specialized courses and involve them in seminars and conferences at home and abroad related to risk and management.

Providing the opportunity for all employees to participate in decision-making, which helps in bringing the employees and management close, encouraging them, and spreading enthusiasm among them either by consulting them, or by reinforcing the idea of expressing opinion, or by giving freedom to the workers to make his own decision regarding his work, which increases the motivation of the workers, and increases the flexibility to respond to the sudden changes.

Working to promote the idea of empowerment in the banking institutions and other institutions operating in Libya, and to focus on the teamwork method as a team to complete the work, and also give them the freedom to determine the most appropriate way to complete the work.

That is important for the managers to emphasize the role of human resources by giving him more attention by training to raise their efficiency, and delegate some powers to staff.

Reconsidering and organize incentive and reward systems and in a fair manner Because of its positive effect on increasing the motivation of individuals.

It is necessary and important for the Libyan organizations to empower the qualified, efficient and highly qualified human resources and to benefit from the experiences of the countries that applied the empowerment in all its dimensions and achieved success because empowerment is the appropriate and the necessary goal, and the optimal solution to get out of risks and crisis, especially in these economic and political circumstances that surrounded on this sector currently.

References

Abdul Hamid, A.M. (2001). Comprehensive Banks (Operations - Management). Alexandria: University House., 231.
Abu Gheim and Jawad (2012). Empowering employees and its impact on managing the marketing crisis: an applied study in the manual carpet factory in Hilla, El Ghary Journal of Financial and Management Sciences, 8 (22), University of Kufa, Iraq.
Afana, H.M. (2013). Administrative Empowerment and Its Relation to the Effectiveness of Task Forces,” in International National Institutions Working in the Gaza Strip. Master's Degree in Business Administration Al-Azhar University, Faculty of Economics and Administrative Sciences. Gaza.

AL-Beltagy, M. (2005). Proposed Model to Risk Measurement in Islamic Banking: Field Study. Institute of Banking - Saudi Arabian Monetary Agency.

Al Qatawneh, A.S. (2016). the Role of Work Teams’ Empowerment in Crisis Management: A Case Study of Jordanian Electricity Distribution Company- Karak Governorate. International Business Research; 9 (6).

Al-Nwaigah, A. (2014). The Impact of Team Work Empowerment in Achieving Organizational Excellence at Taif University: An applied Study. Jordan Journal of Business Administration, 10(3), 426–452.

Al-Tamimi, A. H & Al-Mazrooei, F.M. (2007). Bank’s risk management: A comparison study of United Arab Emirates National and Foreign bank. Journal of risks and finance, 8 (4):394–409.

Ariqat, A. (2010),” The Role of Empowerment in Crisis Management in Business Organizations”, 7th International Scientific Conference, Faculty of Economics and Administrative Sciences, Zarqa Private University.

Ariqat, A. and Zamil A. (2011). The Role of Empowerment in Crisis Management in Business Organizations. Asian Journal of Business Management, 3(3): 188-195.

Carter (2009). Empowering the managers of Employees. American Journal of Economics and Business Administration. 1(2) 41-46, 2009.

Conger, J. A., & Kanungo, R. N. (1988). The empowerment process: Integrating theory and practice. Academy of Management Review, 13(3), 471- 482.

Christoffersen, P. F. (2012). Element of financial risk management. (2nd Edition). USA: Elsevier Academic press, Inc. https://doi:10.1016/B978-0-12-374444-8.00001-4.

Gestel, T.V. and Baesens, B. (2008). Credit Risk Management Basic Concepts: Financial risk components, rating analysis, models, economic and regulatory capital, Oxford University Press.

Hempel, P. S., Zhang, Z. X., & Han, Y. (2012), Team empowerment and the organizational context: Decentralization and the contrasting effects of formalization, Journal of Management, 38(2), 475–501. URL:http://dx.doi.org/10.1177/0149206309342891

Hu L.T. ve Bentler P.M. (1999). Cutoff Criteria for fit indexes in covariance structure analyis: conventional criteria versus new alternatives. Structural Equation Modeling, 6,1-55.

Civelek, M. (2018). Essentials of Structural Equation Modeling, Istanbul Ticaret University, Zea Books, the University of Nebraska, https://doi:10.13014/K2SJ1HR5

Iqbal, Z. and A. Mirakhor. (2011). An Introduction to Islamic Finance: Theory and Practice, (2nd Ed). Asia: published by John Wiley and sons, Pte. Ltd.

Kandemir A.Ş. (2019). Yapısal eşitlik modeli: Boş zaman aktivitesinin yaşam tátını üzerine etkisiş Gazi Kitabevi. 1. Baskı. Ankara.

Kanchu, T, & Kumar, M.M. (2013). Risk management in banking sector: An empirical study. International journal of marketing, financial services & management research, 2(2).

Karagöz Y. (2017). SPSS ve AMOS uygulamalı nitel-nicel-karma bilimsel araştırma yöntemleri ve yayın etiği. Nobel yaynevi 1. Baskı Ankara.

Mathai, C. (2002), Surveying School Counsellors via the Internet Regarding Their Experiences and Training Needs in Crisis, Intervention (Dissertation Doctor of Philosophy), Virginia Polytechnic

Mehmet, U. (2018). The effect of empowerment on employee's job satisfaction: Research on Konya industrial zone. Journal of social studies, (7), (1).

Nanto, D.K., (2006). The USA Financial Crisis: Lessons from Japan. CRS. Congress Report for USA.

Ohudhe, J (2011). The impact of credit risks management on financial performance of commercial banks in Kenya. Research project report submitted in partial fulfillment of the requirements for the award of degree of master of business, Administration. University of Nairobi.

Potterfied, T.A. (1999). The business of employee empowerment: Democracy and Ideology in the work place. USA: Amazon publisher.

Roger, B. (2005). Crisis Management Plans and Systems of Exporting Companies: An Empirical Study, Journal-of-Euro-Marketing, 14(3):7-30. URL:https://doi.org/10.1300/J037v14n03_02.

Smith, D. (2000). Crisis Management Teams: Issues in the Management of Operational Crises. Risk Management an international Journal, 2(3), 61–78. https://doi.org/10.1057/palgrave.rm.8240059

Wekesa, N.R. (2015). The relationship between liquidity risk and financial performance of commercial banks in Kenya.