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Research paper

The Effect of Financial Risk Management and Income Diversification towards Bank Performance (Evidence form the Commercial Banking Sector)

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Abstract

This paper aims to report the effects of a study on the relationship between financial risk management practices and income diversification towards Palestinian commercial banks profitability. The method involved in this research is administering a questionnaire to 11 commercial banks listed on the Palestinian Monetary Authority website and the respondents were those in the risk management department on banks such as chief executive officers (CEOs), chief risk officers (CROs), chief financial controllers, general managers, risk managers, and bank employees at departments related to risk management in Palestinian commercial banks. Also, Panel model analysis was used to estimate the moderation role of income diversification on profitability. It was found that the Palestinian commercial banks managers have a significant level of understanding of risk and risk management practices. In light of the interaction between financial risk management practices (FRMP) with Non-Interest Income Ratio (NIDR) on banks profitability is positive significant (β=.074, $p < 0.05$). Therefore, the result indicates that FRMP with NIDR has a significant effect on the organizational financial performance.

Keywords: *Risk Management; Income Diversification; Commercial Banks, Profitability and Organizational Financial Performance.*

1. Introduction

Credit risk usually appears due of the institutional capacity failure and weaknesses of the management decisions. In addition, the slips of laws and instructions with the ineffective lending practices and well interference of central banks will also lead to credit risk [1]. Credit risk management has been focused by the Basel Accord because of the credit risk exposure threats. Credit risk management has been concentrated on “as a function to maximize a bank’s risk-adjusted rate of return through preserving credit risk exposure within acceptable parameters”. Bank’s credit risks are entrenched in most of the bank’s activities. It is very crucial for the long-term banking success to establish an effective credit risk management. Reference [2] mentioned that, banks can help in strengthening the systemic stability and appropriate allocation of the capital in the economy by having an effective credit risk exposure management. In addition, banks can also enhance and support the profitability of their activities. Deregulation and globalization pushed financial institution to face a dynamic environment, as they trade a large range of financial assets that are various and complex, traditional assets (deposits and loans) and financial derivatives. Advance in technology allowed banks to establish a modern efficient delivery and processing channels. Within this complicated and complex environment banks manager need a pertinent financial and non-financial information for making an accurate decision. References [3,4] argued that, the capability of management to create an appropriate decision is associated with the quality of management information. Banks through over-diversification of revenues increases the risk of default rather than improving profits. In addition, the strategy of income diversification needs high attention as extensive diversification of income sources may reduce the financial performance of banks. Being involved in non-interest based activities; income diversification may show new risks for which specialized managerial expertise are required and being not well-planned, these risks could affect the performance [5]. We can observe that the moderate role of income diversification to increase the bank’s profitability remains a gap. This study finding hoped to form a good comprehension of the banks’ management with regard to the contrary impact which is witnessed in the banks’ profitability as a result of credit risks.

2. Literature Review

There have been a large number of studies published on risk management in general. However, the empirical ones in banking sector were found to be relatively limited. The current risk management practices of the Tunisian banks have been evaluated and analyzed by [6] as they have outlined the methods needed in managing credit risk, market risk, liquidity risk and operational risk in Tunisian banks. Reference [6] concluded that the credit institutions of Tunisia are not able to have a successful application of the requirement situation of the Basel II in order to offer a good circumstance that enhances the situation of the banking when implementing an internal control system powerful governance and transparency. Reference [7] analyzed and evaluated the risk management practices in some Bangladeshi commercial banks;

kinds of risk that the bank encounters, process, procedure and techniques used to minimize the risk, as the results revealed that banks need to highly concentrate on credit, market, and operational risks in order to alleviate and regulate their risk management practices. The board of directors have the responsibility of monitoring the risk strategy once the Basel II framework is completely implemented and the banking operation activities were overseeing by Audit Committee and Executive Committee. It's also found that risk adjusted rate of return on capital and internal rating system are the most important techniques used by Bangladesh banks. The Central Bank of Nigeria (CBN) believes that Basel II will work strongly on protecting the national financial system from the risks that may rise and cause banks failure. The central bank of Nigeria must focus on increasing the recognition in the relationship between the amount of capital which held by banks against risk and the effectiveness of the Nigerian risk management and internal control procedures and process [8].

The most concern of the banks nowadays are the return volatility and risk of default, where the banks are looking for new means to produce revenue in addition to their conventional modes which are called income diversification, which used by banks to decrease the volatility of their earnings. In addition, several empirical researches have examined the importance of the relation between income diversification and banks performance in different countries. Reference [9] mentioned that over-diversification of revenues increases the risk of default rather than improving profits. In addition, the strategy of income diversification needs great are as extensive diversification of income sources may reduce the financial performance of banks. Being involved in non-interest based activities; income diversification may show new risks for which specialized managerial expertise are required, being not well-planned, these risks could affect the performance [5]. According to [10] large financial institutions and deposit banks can operate a wide investment in the nontraditional segments that due to a better tools and strategies to manage risks related to non-interest income activities compared to smaller banks. References [11,12] reached to a similar finding which indicate that, there is a positive relationship between income diversification and profitability in banks. Nevertheless, [13] found a nonlinear relationship profitability and income diversification which also been supported by studies such as [9,14–16] that found a negative relationship between income diversification and profitability in banks.

Reference [17] comes with findings that non-interest income activities could negatively affect Tanzania banks performance as his study that used a fixed effect model for 25 national banks between the period of 2002 to 2012. However, the share of net interest income has positive effect on Tanzanian banks profitability, several existing difficulties like technology improvement, supervision and regulation and competition abolish noninterest income activities. The academic trend increased recently towards banks income which generated from non-interest activities and other related factors such as technological advancement, financial market integration and market competition. In a similar vein, [18] examined the risk and income diversification impact of Vietnamese banks profitability over the period 2005 till 2012 through applying panel regression model. Their finding indicated that Vietnamese banks with high non-interest income show lower risk than other banks. Besides those banks with small size impact level towards income diversification still not assured. In addition, [19] conclude that banks non-interest income high ratio to interest income is liked with greater profitability than other banks within a sector. On the other hand, [20] analyzed the profitability of the Turkey banks by implementing panel regression model and found that noninterest income activities boost equity capital adequacy.

3. Methodology

This study instruments the survey questionnaire and Panel data regression. Whereas the questionnaire was developed by the researcher based on items and questions being adopted by [21] and [22]. The population of the study is the commercial banks in Palestine that listed on the Palestinian Monetary Authority official website. Since the information required being focused on financial risk management practices of the banks, this information must be collected from most qualified respondents were those in the risk management department on banks such as chief executive officers (CEOs), chief risk officers (CROs), chief financial controllers, general managers, risk managers, and bank employees at departments related to risk management in Palestinian commercial banks. Therefore, purposive sampling technique was adopted. Also, this study conducts empirical examine for quantitative effect of financial risk on the Palestinian banks performance over the period of 7 years (2008-2014) which 11 commercial banks were chosen from the total existing banks operating in the country. The banks are first bank of Palestine. Arab Bank., Cairo Amman Bank., Bank of Jordan., Quds Bank., The National Bank., Palestinian Investment Bank., Jordan Ahli Bank., Palestine Commercial Bank., Jordan Commercial Bank and Jordan Kuwait Bank. Data pooled into a panel data set and estimated using Panel Data Regression.

3.1. Research Questions and Hypotheses Development

This study attempts to answer the following questions:

RQ1. Do Palestinian banks' staff understand the risks that threats their banks activities?

RQ2. Do Palestinian banks' staff realizing the overall responsibility for managing risk in banks?

RQ3. Do Palestinian banks' staff understand the risk and risk management?

RQ4. Do Palestinian banks' staff address risk management practices?

RQ5. Are the Palestinian commercial banks efficient in diversifying their income and what is their effect on bank profitability?

Contingency theory depends on a main concept which is "Fit" [23]. "Fit" clarification made by three different forms which is used in several previous contingency-based management accounting research, which are the selection, interaction and system approaches. Therefore, this research will adopt the interaction approach to study financial risk management practices and income diversification towards Palestinian commercial banks profitability. Based on the stated purpose and the questions mentioned above, the following hypotheses are formulating:

H1. There is a difference in understanding risks that threats their banks activities between Palestinian banks' staff.

H2. There is a difference in realizing who accepts the overall responsibility for managing risk in banks between Palestinian banks' staff.

H3. There is a difference in understanding risk and risk management between Palestinian banks' staff.

H4. There is a difference in addressing risk management practices between Palestinian banks' staff.

H5. There is no significant relationship between income diversification and the Palestinian commercial banks' profitability.

3.2. Date Analysis

In this research the unit of analysis is the bank sector. After the stage of collecting survey questions from responses, and establishing coding procedure, the responses data was coded and transferred to the computer for analysis level through using SPSS Windows which is considered statistical software. This statistical analysis can provide several advantages such as creating effective

data management SPSS that make data analysis quicker because the program realizes and knows the location of the variables. In addition, the researcher will follow some steps in the process of analyzing the data:
1) Successive interval which allows classifying, sort rank, measure and compare the size difference between the value [24] Beside the calculation of the median, mode, and the percentage, the calculation of average and range can already be used on an interval technique.
2) Methods of data analysis included descriptive statistics (e.g. mean and S.D.), reliability analysis, and relevant tables.
3) Correlation analysis to study the relationship between variables.
4) Moderated regressions to test and then analyze whether trust and satisfaction mediate the relationship among the independent variables and the dependent variable.

4. Empirical Results

This study investigating the relationship between financial risk management practices and income diversification by implementing the selection form of "fit". As further tests' results discussed on the following sections:

4.1. Reliability of the Measures

Reliability means the consistency and stability of a particular set of items used in measuring a variable. The Cronbach Alpha test is the common tool used in testing instruments' reliability. The test is performed on each variable used in a study to obtain the reliability coefficients that is Cronbach's Alpha coefficients. In this research, the scales used in the questionnaire were measured for internal consistency using Cronbach's alpha. A reliable scale should have an alpha of at least 0.7 [25, 26]. The results are presented in table 1. From the findings, it is shown that alpha values are high as (> 0.7). This explains that every scale related to the questions worked to measure one concept. In addition, the scale is made up from internally consistent items. From table, the recorded scores indicate that there was a good internal consistency among the items.

4.2. Results Discussion

In order to answer the research questions, the following risk management aspects will be explained

Table.1: Reliability Test

Risk Management Aspects	Cronbach's Alpha
Staff understanding risks that threats their banks activities	0.748
Realizing who accepts the overall responsibility for managing risk in banks	0.788
Understanding risk and risk management	0.822
Addressing risk management practices	0.869

Table.2: Results Of Mean And Frequency Analysis

Background variable	Categories	Freq-uency	Percent-age	Rank /Mean
Type of risks	Credit risk	**56**	**70.9%**	**1**
	Interest rate risk	**41**	**51.9%**	**2**
	Foreign exchange rate risk.	**37**	**46.8%**	**3**
	Liquidity risk	**34**	**43%**	**4**
	Market risk.	**22**	**27.8%**	**5**
	Operational risk.	**19**	**24.1%**	**6**
	Other risk	**7**	**8.9%**	**7**
Compliance Committee	Board of director.	**41**	**51.2%**	**3**
	Chief Risk Officer.	**18**	**22.5%**	**7**
	Chief Executive Officer	**36**	**45%**	**4**
	Board Level Risk Committee.	**62**	**77.5%**	**1**
	Management Level Risk Committee	**30**	**37.5%**	**5**
	Head of Business Units	**48**	**60%**	**2**
	Internal Auditor.	**26**	**32.5%**	**6**
Understanding risk and risk management	understanding of risk management	**46**	**57.5%**	**2.39**
	Risk management responsibility	**69**	**86.3%**	**.90**
	Risk management accountability	**57**	**71.3%**	**1.48**
	Bank performance and success	**37**	**46.3%**	**2.40**
	apply the most sophisticated techniques in risk management.	**31**	**38.8%**	**2.42**
	banks emphasize on evaluation the techniques used in risk management.	**52**	**68.8%**	**2.09**
ADRESSING RISK MANAGEMENT PRACTICES	Effective continuous review on risk management strategies and performance.	**48**	**60.0%**	**3.79**
	Banks policy encourages training programs in risk management	**61**	**76.3%**	**2.38**
	Recruitment of highly qualified people in the risk management.	**55**	**68.8%**	**2.86**
	Efficient risk management	**67**	**83.8%**	**1.74**
	Risk management process and procedures are clearly documented	**74**	**92.5%**	**.93**
	The application of Basel improve the efficiency of risk management	**53**	**66.3%**	**3.44**
Income Diversification	NIDR = (Total Income – Interest			**1.49**

	Income) / Total Income.			
Organizational Performance	Return on Asset = Net profit / Total Asset. Return on Equity: Net Income after Tax / Total Equity			**1.06** **1.94**

Risks threats bank activities**:** Commercial banks in Palestine encounter several kinds of risks. The respondents have been questioned to point out and rank the risks with the highest threats with respect to their banks. The results are tabulated in table 2. It is seen that commercial banks in Palestine encounter all kinds of risks. However, the common three types are credit risk, interest rate risk and liquidity risk. The last four risks are the operational risk with a frequency of 34 and a percentage of 43%, market risk with 22 frequencies and 27.8% percentage, foreign exchange rate with a frequency of 19 and a percentage of 24.1% and lastly the "other" with a frequency of 7 and a percentage of 8.9%.

Risk management and compliance committee: In this context, the results are explained in table 2 which represent the Palestinian commercial banks total responsibility with regard of risk management. It is shown that the board level risk committee catches the highest rank with regard to the total responsibility for risk management with a frequency of 62 and a percentage of 77.5%. The second highest rank is for the head of business units with a frequency of 48 and a percentage of 60%. The third rank is for board of director with frequency of 41 and a percentage of 51.2% then chief executive officer with the frequency of 36 and percentage of 45%. The fifth rank has gone to management level risk committee with a frequency of 30 and a percentage of 37.5%. No big difference between the fifth and last ranked items. Thus, the internal auditor's frequency is 26 and its percentage is 32.5% while the last item, chief risk officer, has the 18 frequencies and 22.5% percentage.

Understanding risk and risk management: The findings on table 2 illustrates that the responses' frequency about the idea of risk understanding and management with regard to the six questions show small differences between the answers where the highest and lowest frequency are to some degree near to each other. Table 2 also describing about agreeing or disagreeing about risk understanding and management. The answers were ranked accordingly from the strongly disagree to strongly agree. The agree choice was the highest in each point but differs from one to another. The answers of the six questions made by the respondents point out that the employees in Palestinian commercial banks have some knowledge with respect to understanding risk management. Thus, the responsibility with regard to risk management is clearly demonstrated by the bank who is in ranked firstly as we have a frequency of 69 with a percentage of 86.3% of agreeing. Lastly, "it is decisive to apply the most sophisticated techniques in risk management" has got the sixth rank with a frequency of 31 and a percentage of 38.8%. We may also notice that no big difference appears to be between the means of the six questions. It is clear that the employees of the Palestinian banks show excellent knowledge with regard to risk understanding and management. This can show the capability of such banks to handle risk in an effective way in the future.

Risk Management Practices**:** The notion of risk management practices is understood as the vital element of risk management. Despite that the bank's staff have good knowledge of understanding risk and risk management, however, it is not sufficient that there are effective risk management practices. With regard to risk management practices, the questionnaire tackles six questions in this regard. In table 2 the results show the frequency of responses. furthermore, the banks risk management process and procedures are clearly documented and provide guidance to staff to manage the risk is ranked firstly with a frequency of 74 and a percentage of 92.5%. whereas the statement of "Your bank has highly effective continuous review on risk management strategies and performance" has the lowest rank with a frequency of 48 and a percentage of 60%. The highest mean value, 3.79 occurs on the fifth statement "Your bank has highly effective continuous review on risk management strategies and performance" that also confirm that Palestinian banks intend to have efficient risk management. The lowest mean value, 0.93 occurs on first statement "the banks risk management process and procedures are clearly documented and provide guidance to staff to managing risk "the answer gives clear indication that the Palestinian bank's staff should be more aware of the implementation of the Basel Capital Accord.

The appropriate "fit" between financial risk management practices (FRMP) and income diversification (NIDR) is represented by the relationship between the two. The relationship between FRMP and NIDR was analyzed using the correlation matrix. Results indicate that FRMP was significant related to NIDR (table 3). The positive and significant relationship between FRMP and NIDR appeared in all measures which are Risks threats bank activities, Risk management and compliance committee, Understanding risk and risk management and Risk Management Practices. This significant relationship between FRMP and NIDR suggest that an increase level of FRMP implementation is necessary associated with an increase level of implementing income diversification in banks activities. Therefore, **H2:** it comes with a high degree of accreditation. Compatible with [27], the interaction effect between NIDR and FRMP was testing using moderating multiple regressions. These hypotheses can be illustrated in a moderated regression equation as:

Financial Performance= $\alpha + \beta 1\ NIDRt + \beta 2\ NIDRc + \beta 3\ NIDRr + \beta 4\ NIDRp + \varepsilon$

Table 3: Correlation Of Credit Risk Management Practices And Management Accounting System

	Risks threats	**RM and compliance committee**	**Understan-ding risk and RM**	**RM Practices**	**Organizational financial performance**
Income diversify-cation	0.033	0.034	0.043	0.048	0.001

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

Table 4: Results of moderated regression

	Coefficient Value (β)	**SE**	**t-value**	**Proba-bility**
Risks threats bank activities × *Income diversification (NIDRt)*	0.238	0.252	-2.371	0.028
RM and compliance committee × *Income diversification (NIDRc)*	-0.089	0.270	-6.73	0.005
Understanding risk and RM × Income diversification (NIDRr)	-0.260	0.364	1.758	0.039
RM Practices × *Income diversification (NIDRp)*	0.074	0.201	0.634	0.047

Table 4 shows the moderated regression for the effect of the interaction between NIDR and FRMP on organizational financial performance. The results shows the interaction of risks threats bank activities with NIDRt on banks profitability is positive significant (β= 0.238, $p < 0.05$), interaction of risk management and compliance committee with NIDRc on banks profitability is negative significant (β= -0.039, $p <0.05$), interaction of understanding risk and risk management with NIDRr on banks profitability is negative insignificant (β= -0.260, $p < 0.05$), interaction of risk management practices with NIDRp on banks profitability is positive significant (β=0.074, $p < 0.05$).

Therefore, the results also provide some important evidence about efficient risk management in Palestinian commercial banks that strongly clarified by a positive

relation between income diversification and profitability which mean that having higher share of non-interest income will cause a positive impact on the volatility of the banks' returns and thus give the chance to have higher risks. Palestinian commercial banks are still strongly depending on their interest in at FRMP with NIDR has significant affected the organizational financial performance. Our analysis results show that 10.47% of the total income of the Palestinian commercial banks was from non-interest income which indicates that the depending rate on non-interest income services at the Palestinian commercial banks is still low, especially through trading with innovative financial products such as loan securitization and other off-balance sheet activities which increase the share of non- interest income also other lower interest margins activities like inter-bank loans this indicate that Palestinian banks profitability keep increasing. The low percentage of non-interest activities indicate the wide understanding of the Palestinian banks managers about the risks of earning volatility and operational risk represented by high management ability, investment on facility and labor and cost expansion.

As this research focus on financial risk management practices and income diversification towards profitability of commercial banks, further research could be move to other risks management area such as banking industry's development, diversified types of banks have built to satisfy the demand of innovation in financial markets. In addition, profitability is only one aspect of banks' financial performance, exploring the other aspects of financial performance is also an interesting expansion for this research.

As the hypothesis no. 5 Assumes that there is no significant relationship between income diversification and the Palestinian commercial banks' profitability, and this hypothesis is rejected which mean the is a significant relationship between income diversification and the Palestinian commercial banks' profitability [28, 29].

5. Conclusions and Policy Implications

The main results of this study are confirming that the three most substantial types of risks facing by the Palestinian commercial banks are credit risk, interest rate risk, then foreign exchange risk. Also the most responsible department for managing risk in the Palestinian commercial banks is Board level risk committee. furthermore, the Palestinian banks are in a stage of understanding risk and risk management practices consequently this leads to high level of efficiency on their operations.

References

[1] Faizan Ahmed S, Ali Malik Q. "Credit Risk Management and Loan Performance: Empirical Investigation of Micro Finance Banks of Pakistan,". International Journal of Economics and Financial Issues., vol. 5(2), pp. 574–9, 2015.

[2] Ruziqa A. "The impact of credit and liquidity risk on bank financial performance: the case of Indonesian Conventional Bank with total asset above 10 trillion Rupiah,". International Journal of Economic Policy in Emerging Economies, vol. 6(2), pp. 93, 2013.

[3] Al-Zhrani S, Bin Saud MAI. "Management Information Systems Role in Decision-Making During Crises : Case Study,". Journal of Computer Science, vol. 6(11), pp. 1230–4, 2010.

[4] Nowduri S. "Management information systems and business decision making: review, analysis, and recommendations,". Journal of Management and Marketing Research, pp. 1–8, 2011.

[5] Sahoo D, Mishra P. "Operational Diversification and Stability of Financial Performance in Indian Banking Sector: A Panel Data Investigation,". Research Journal of Finance and Accounting., vol. 3(3), pp. 70–88, 2012.

[6] Ben R, Mokni S, Echchabi A, Rajhi MT. "Risk Management Practiced Tools in the MENA Region : A Comparative Study between Islamic and Conventional Banks,". search.proquest.com. vol. 20(3), 2015.

[7] Alam MZ, Musukujjaman M. "Risk Management Practices: A Critical Diagnosis of Some Selected Commercial Banks in Bangladesh,". Journal of Business and Technology (Dhaka). vol. 6(1), pp. 17–35, 2012.

[8] Fadun OS. "Implications and challenges of Basel II implementation in the Nigerian banking system,". IOSR Journal of Business and Management (IOSR-JBM). vol. 7(4), pp. 53–61, 2013.

[9] Delpachitra S, Lester L. "Non-Interest Income : Are Australian Banks Moving Away from their Traditional Businesses ?*,". Economic Papers: A journal of applied economics and policy. vol. 32(2), pp. 190–9, 2013.

[10] Tarazi A, Crouzille CM, Tacneng RC. "Bank Diversification, Risk and Profitability in an Emerging Economy with Regulatory Asset Structure Constraints: Evidence from the Philippines,". SSRN Electronic Journal, 2010 .

[11] Apergis N. "The long-term role of non-traditional banking in profitability and risk profiles: Evidence from a panel of U.S. banking institutions,". Journal of International Money and Finance., vol. 45, pp. 61–73, 2014.

[12] Alhassan AL. "Income diversification and bank efficiency in an emerging market,". Managerial Finance. vol. 41(12), pp. 1318–35, 2015.

[13] Gambacorta L, Scatigna M, Yang J. "Diversification and bank profitability: A nonlinear approach,". Applied Economics Letters., vol. 21(6), pp. 438–41.

[14] Chronopoulos DK, Liu H, McMillan FJ, Wilson JOS. "The dynamics of US bank profitability,". European Journal of Finance. 2015, vol. 21(5), pp. 426–43, 2014.

[15] Tan Y. "The impacts of risk and competition on bank profitability in China,". Journal of International Financial Markets, Institutions and Money. vol. 40, pp. 85–110, 2016.

[16] Lee CC, Yang SJ, Chang CH. "Non-interest income, profitability, and risk in banking industry: A cross-country analysis,". Vol. 27, North American Journal of Economics and Finance. p. 48–67, 2014.

[17] Mndeme RK. "Impact of Non Interest Income on Banking Performance in Tanzania,". International Journal of Economics, Commerce and Management. vol. III(5), pp. 75–92, 2015.

[18] Nguyen TC, Vo DV, Nguyen VC. "Risk and Income Diversification in The Vietnamese Banking System,". Journal of Applied Finance & Banking. vol. 5(1), pp. 93–109, 2015.

[19] Saunders A, Schmid M, Walter I. "Non-Interest Income and Bank Performance : Does Ring-Fencing Reduce Bank Risk?,". No.2014/17, 2016.

[20] Karakaya A, Er B. "Noninterest (Nonprofit) Income and Financial Performance at Turkish Commercial and Participation Banks,". International Business Research. vol. 6(1) , 2012.

[21] Nazal, A. I. Financial Tables Reports Gaps in Jordanian Islamic Banks. The Economics and Finance Letters, 4(2), 9-15, (2017).

[22] Rasid SZA, Rahman ARA, Ismail WKW. "Management accounting and risk management in Malaysian financial institutions: An exploratory study,". Managerial Auditing Journal. vol. 26(7), pp. 566–85, 2011.

[23] Drazin R, de Ven AH Van. "Alternative Forms of Fit in Contingency Theory,". Administrative Science Quarterly. vol. 30(4), pp. 514, 1985.

[24] Tabachnick B, Fidell L. "Using multivariate statistics,",2007.

[25] Salem, M. A., Shawtari, F., Shamsudin, M. F., & Hussain, H. B. I. The consequences of integrating stakeholder engagement in sustainable development (environmental perspectives). *Sustainable Development*, 26(3), 255-268, 2018.

[26] Salem, M. A., Shawtari, F. A., Shamsudin, M. F., & Hussain, H. I. The relation between stakeholders' integration and environmental competitiveness. *Social Responsibility Journal*, 12(4), 755-769,

(2016).

[27] Purnama, C. Improved Performance Through Empowerment of Small Industry. Journal of Social Economics Research, 1(4), 72-86, (2014).

[28] Hadi, A.R.A., Hussain, H.I., Suryanto, T., Yap, T.H. Bank's Performance and Its Determinants – Evidence from Middle East, Indian Sub-Continent and African Banks, *Polish Journal of Management Studies*, 17(1), 2018.

[29] Kamarudin, F., Sufian, F., Nassir, A.M., Anwar, N.A.M., Ramli, N.A., Tan, K.M. and Hussain, H.I. Price efficiency on Islamic banks vs. conventional banks in Bahrain, UAE, Kuwait, Oman, Qatar and Saudi Arabia: impact of country governance. *International Journal of Monetary Economics and Finance*, (forthcoming), 2018