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Sectoral and Sensitivity analysis of Firm Performance: An Evidence of Internal Risk and External Factor's Influence on Firm Performance for Non-Financial Listed Firms of Pakistan

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Abstract- The aim of this study is to examine the sectoral effects on firm performance. At sectoral level Dynamism, munificence and HHI also have explanatory factors. The internal factor like liquidity of the firms and at external level the GDP are included. Other factors like munificence, dynamism and HHI shows the sectoral influence on firm performance. The data set use in this study consist of 2005-2017. The major data sources are State Bank of Pakistan, World Bank and Statistical Bureau etc. The financial statements including Balance sheets and Income statements are also sources of data. Study also makes a pre and post analysis of financial crises to examine the impact in different fiscal collapses. The major tools are used in this study to check the sectoral and sensitivity analysis of firm performance include diagnostic testing like descriptive summary and correlation. However, study also used the OLS regression to check the case and effects relationship among the variables. The study also used the fixed affects model to make the analysis. The study is limited to non-financial listed firms from the Pakistan stock exchange. The unlisted firms as well firms in the form of merger and acquisition are not included in the study. The population of study consist on non-financial including major sectors textile, sugar, energy and chemical etc. The sample are selected on the base of listed and highly capitalized firms. The findings of study argue that risk at internal and external levels have significant impact on firm performance. The findings supported by high risk high return phenomena. Same like some factors at sectoral level also have significant impact on firm performance. However, in pre and post analysis the impact is quite different in different economic collapses. The current study has various implications for the users in market. Study is useful for the students, researchers and other investor who take decision before investment. The study is also useful for financial institutions to plaid the threat influence in different periods. It is recommended that in future researchers can make addition by using latest data across the sectors like financial and non-financial. However, the study can be extended applying GMM dynamic modeling etc.

Key Words: Sectoral Analysis, Pre and post analysis, Liquidity Risk, Munificence, Dynamism

I. INTRODUCTION

Anything that create problem or become obstacle in the achievement of goals and objectives is defined as risk. As well as types of risk is concerned it totally depends upon the situation. However, in the risk factor external and internal both factors are eliminated. Risk may affect the other factors involving in business but M&M (1958) argued that the firm worth remains untapped by the risk management factor in case of perfect market. The term risk management is important to achieve the objective of the firms. The risk and return are varied in different direction, high risk in the light of some researchers will clue to higher return, in contrast some researchers also found results in vice versa. According to Fatemi & Fooladi, (2006) to maintain best position in the future the balanced trade off risk and return effective management of risk is compulsory. At corporate level the internal risk has great influence on firm performance identified by ((Faruq & Weidner, 2018;Gruian,2011; Porter, 1998). The listed and bond issuing firms roughly decreasing their capital due to recently financial crises argued by i.e. (Lwasaki 2014; Guariglia 2016; Bajra U. and Cadez S. 2018).

Most recently in line with Hussin F., Ali J. and Noor M. (2014). for the investors, managers and stockholders in the market risk management is an important factor that can't be eliminated. In short better risk management skills will lead to better performance of the firms. The firm performance can be affected by the financial risk. Financial risk influences the firm performance in both long term and short-term period. However, the financial risk can be organized in context of achieving long term goals of the firm. In line with Acemoglu et al., (2015) to explaining the differences in economic growth of different countries the risk is very important determinant of firm performance. However, the munificence also plays an important role in the firm's ability to continue (Dosi et al., 2017). According to and Iqbal Z. Munawar H. and Khalique M. (2018) every economy has four different economic collapses like growth, stability crises and recovery period. To make pre and post analysis the whole period is divided into pre

and post window of financial crises. Iqbal Z. et al. (2018) summarized that different factors have different impact in pre growth and post or recovery period.
Sectors play a key in the performance of economy of each country. The major sectors from the non-financial area of developing market like Pakistan included have a great participant in the economic development of Pakistan. According to Naveed M. (2018) the importance of sectors in economic development of Pakistan can't be eliminated. He also argued that the sectors have an important role to the GDP growth of Pakistan economy. The objective of this study is to check the effects of risk factors including liquidity risk as internal factor, GDP as external factor and Munificence, dynamism and HHI as sectoral effects. The HHI or level of concentration of risk including also some other external factors like GDP and inflation etc. on firm performance major indicators is ROA. The study focusses on non- financial sector and also make pre and post analysis to check the possessions in different economic collapse.

1.1- BACKGROUND OF THE STUDY

The risk in changing business environment involves economic risk, natural, political threats and technical resources Olson and Dash Wu, (2010). It also attributes in changing business at different level so the management of risk can't be eliminated. In line with theoretical perspective the risk management includes various researchers' argument but initially started by (Modigliani and Miller 1958). The risk management subject is still under consideration since 1950. Risk may affect the other factors involving in business but M&M (1958) argued that the value of firms remains untapped by the risk management factor in case of perfect market. In the light of Markowitz, (1952) to reduce risk level any shareholder use two major tools like diversification and allocation. To make investment in different portfolio minimize the risk the assets often change the value in opposite pattern.
According to Mandelbrot and Hudson, (2004) the assets or investment by various sources take low risk as compare to individually. The movement of assets that follows unpredictable path, the modern portfolio theory based on the random walk of assets. According to Kaur, (1995) the globalization of business brings various types of risk which are irrelevant for the operations business of the firms. These risks are managed by using new financial derivatives lines. Pakistan is developing market, facing various problems especially the systematic risk of the global market. According to famous separation theorem it is stated that the in perfect capital markets the financial decisions are irrelevant with the value of the firms. However, the shareholder's wealth can be maximized by increasing value of firm's assets.
Furthermore, Modigliani and Miller (1958) state that the financial decisions of firms could not affect the values of the firms. Due to payment of dividend the value of the firm remains constant. To make pre and post analysis the whole period is divided into pre and post window of financial crises. Iqbal Z. Munawar H. and Khalique M. (2018) summarized that different factors have different impact in pre growth and post or recovery period. Acemoglu (2015) explained the differences in economic growth of different countries the risk is very important determinant of firm performance. However, the munificence also plays an important role in the firm's ability to continue (Dosi 2017). At corporate level the internal risk has great influence on firm performance identified by (Porter 1998; Yasar 2011; Faruq and Weidner 2018 and Ghoual 2017). The listed and bond issuing firms roughly decreasing their capital due to recently financial crises (Lwasaki 2014; Guariglia 2016; Bajra U. and Cadez S. 2018).

1.2- PROBLEM STATEMENT;

In line with most developed markets various researchers investigated the firm performance. In line with Pakistan some researchers explored the sensitivity and sectoral analysis in different aspects. According to Iqbal Z. Munawar H. and Khalique M. (2018) every economy has four different economic collapses like growth, stability crises and recovery period. To make pre and post analysis the whole period is divided into pre and post window of financial crises. Iqbal Z. Munawar H. and Khalique M. (2018) summarized that different factors have different impact in pre growth and post or recovery period. The study will tap with sectoral effects, it includes the three major factors of sector level. Firstly, to examine the sectoral effects munificence use as sector level factor. It shows the strengths of the sector. Secondly study use dynamism as sectoral effects, it shows the level of risk within the sector.
The study focusses on non- financial sector and also make pre and post analysis to check the possessions in different economic collapse. In line with some previous researchers from developed and emerging markets worked on financial risk and firm performance. The internal factor like liquidity of the firms and at external level the GDP are included. Other factors like munificence, dynamism and HHI shows the sectoral influence on firm performance. Accordance with previous evidence there is no single evidence from rising market particularly Pakistan which investigate the pre and post analysis of financial sector risk and firm performance in line with diverse financial collapse.

1.3- RESEARCH OBJECTIVES;

- To check the significant factors of firm performance for non-financial sector.

- Make a pre and post analysis to examine the influence of financial risk on firm's performance in different economic collapse.

1.4- SIGNIFICIANCE OF THE STUDY;

The study is significant for the collectors and other lender and borrowers. The study also has great source of information for investors of non-financial sectors, the investor's forecast the risk in the financial sector and make investment decision. In line with agency theory the manager act as agent for the investors, the basic principles also supported by this study to understand the financial risk involve in financial sectors. Due to this fact, the consequences of this exploration study will assist the guideline to make the choice about their portfolio and about group choice. It has additionally assisted to the regulatory our bodies of Pakistan and particularly the findings of the analysis examine can even assist the administration at the giant.

II. LITERATURE REVIEW

The risk management subject is still under consideration since 1950. Risk may affect the other factors involving in business but M&M (1958) argued that the value of firms remains untapped by the risk management factor in case of perfect market. In the light of Markowitz, (1952) to reduce risk level any shareholder use two major tools like diversification and allocation. However, in line with modern portfolio the concept of risk management is not related to shareholder value. Any flow in the risk directly affects the return, it is stated that the risk and return are directly proportional of each other. According to Fatemi and Fooladi, (2006) to manage risk in proper way bring out the balance between risk and return. Sectors play an important role in the economic development of any country. According to Iqbal Z. Munawar H. and Khalique M. (2018) every economy has four different economic collapses like growth, stability crises and recovery period.

To make pre and post analysis the whole period is divided into pre and post window of financial crises. Iqbal Z. Munawar H. and Khalique M. (2018) summarized that different factors have different impact in pre growth and post or recovery period. Acemoglu (2015) explained the differences in economic growth of different countries the risk is very important determinant of firm performance. However, the munificence also plays an important role in the firm's ability to continue (Dosi 2017). At corporate level the internal risk has great influence on firm performance identified by (Porter 1998; Yasar 2011; Faruq and Weidner 2018 and Ghoual 2017). The listed and bond issuing firms roughly decreasing their capital due to recently financial crises (Lwasaki 2014; Guariglia 2016; Bajra U. and Cadez S. 2018).

According to Kaur, (1995) the globalization of business brings various types of risk which are irrelevant for the operations business of the firms. These risks are managed by using new financial derivatives lines. Pakistan is developing market, facing various problems especially the systematic risk of the global market. In line with Kaur, (2005) the risk shocks arising in one market of may influence the all other markets nearest. The global financial crises have highlighted that the risk management is very important for the firms at local and global level (Coskun, 2013). It enhances firm performance and also creates values of stake holder, it is one of the top agenda of the business world supported by (Hillson 2002; Gates, Nicolas and Walker (2012). Due to various number of parallel events the interest of risk management is growing in the world. The risk in changing business environment involves economic risk, natural, political threats and technical resources Olson and Dash Wu, (2010). It also attributes in changing business at different level so the management of risk can't be eliminated. In line with theoretical perspective the risk management includes various researchers' argument but initially started by (Modigliani and Miller 1958). According to famous separation theorem it is stated that the in perfect capital markets the financial decisions are irrelevant with the value of the firms. However, the shareholder's wealth can be maximizing by increasing value of firm's assets. Furthermore, Modigliani and Miller (1958) state that the financial decisions of firms could not affect the values of the firms. Due to payment of dividend the value of the firm remains constant. Another theoretical perspective is portfolio; the modern portfolio theory stated that "put your all eggs in one basket". It is theory of investment which argued that make investment in different places to maximize the return and minimize the risk. The modern portfolio theory is given by Markowitz (1952). It is a mathematical process keeping an aim to select better invest opportunity for investment that give the maximum profit and with minimum risk. To make investment in different portfolio minimize the risk the assets often change the value in opposite pattern. According to Mandelbrot and Hudson, (2004) the assets or investment by various sources take low risk as compare to individually. The movement of assets that follows unpredictable path, the modern portfolio theory based on the random walk of assets.

Finally, in line with theoretical perspective the CAPM was firstly introduced by Sharp, (1964). However, Lintner also participated in the model of CAPM in 1965. According to this model total risk in the market

divided into two parts, systemic risk and un-systemic risk. The systemic risk is no diversifiable and un-systemic risk is controllable or divertible. According to MONdO, Otim, Musoke, Akol, and Orem, (2013) the precise risk can be minimizing by diversification; the investors only get compensated holding risk.

2.1- VARIABLES

2.1.1- DEPENDENT VARIABLE;

2.1.1.1 FIRM PERFORMANCE; Firm performance can be measure by various methods. It can be measured by profitability, ROE, ROA and net interest margin etc. This study tends to focus on ROA as indicator of firm performance. The firm performance can be measured by using ROE, ROI, Tobin's Q and ROA etc. In line with some previous evidences various researchers used ROA/ ROE as measurement of profitability of firms. Profitability is the most common measure of firm performance. The measures of profitability are used to assess how well management is investing the firms' total capital and raising funds. Profitability is generally the most important to the firm's total shareholders. Profits serve as cushion against adverse conditions such as losses on loans, or losses caused by unexpected changes in interest rates (Gitogo et al., 2013). Also, alternative measures of firm performance such as return on equity (ROE) and return on asset (ROA) will be used. ROE is operating income scaled by the market value of equity and ROA is net income scaled by total assets (Choi, 2013). The main objective of the firms is to profit maximization and return on equity. These are the major indicators that show the outcomes of the firms in different financial periods (Kaplan and Norton, 1992). Furthermore, in the light of Ongore and Kunsa (2013) firms may have some other economic and social objectives.

2.1.2- INDEPENDENT VARIABLE AT INTERNAL LEVEL;

In line with previous research various factors influenced the firm performance at different levels including internal and external. At external levels the macroeconomic factors have great influence upon the performance of each firms particularly in non-financial sectors. Various researchers investigated the macroeconomic factors i.e. according to Gul, Irshad and Zaman, (2011) in the issue of effecting Pakistan financial institutions GDP has positive effects on firm performance. In contrast at internal levels various researchers explained the impact of firm's internal level factors on its performance. In line with most developed markets one evidence reported by Jenkinson, (2008) the liquidity risk is matter in which it could have effects on financial institutions but may not fully satisfy the whole demand of investor's intermission. Similar in context of Pakistan One evidence from Pakistan Ahmed, Naik, Willoughby, and Edwards, (2012) observed the connection of liquidity risk and bank performance.

2.1.2.1- LIQUIDITY RISK; The term liquidity also defined as the incapability to gain the mandatory cash at realistic cost. The liquidity risk is fame to the financial institutions; it could have effects on financial institutions operations. According to Jenkinson, (2008) the liquidity risk is matter in which it could have effects on financial institutions but may not fully satisfy the whole demand of investor's intermission. In line with some previous evidence various researchers reported the adverse significant association among the liquidity risk and ROA. One evidence from Pakistan Ahmed, Naik, Willoughby, and Edwards, (2012) observed the connection of liquidity risk and bank performance.

2.1.3- INDEPENDENT VARIABLES AT EXTERNAL LEVEL;

2.1.3.1- GDP; GDP is gross domestic products give the ratio of products and services with in the country produced by various industries to support the economy of that country. The GDP is also calculated annually. It is an indicator of country economy. The stable and high return or profitability of country increases the rapid economic growth. The changes in business cycle directly affect the banking and other sectors of country. In line with previous researchers various argued the positive significant relationship with firm performance. According to Gul, Irshad and Zaman, (2011) in the issue of effecting Pakistan financial institutions GDP has positive effects on firm performance.

2.1.4- INDEPENDNET VARIABLES AT SECTOR LEVEL;

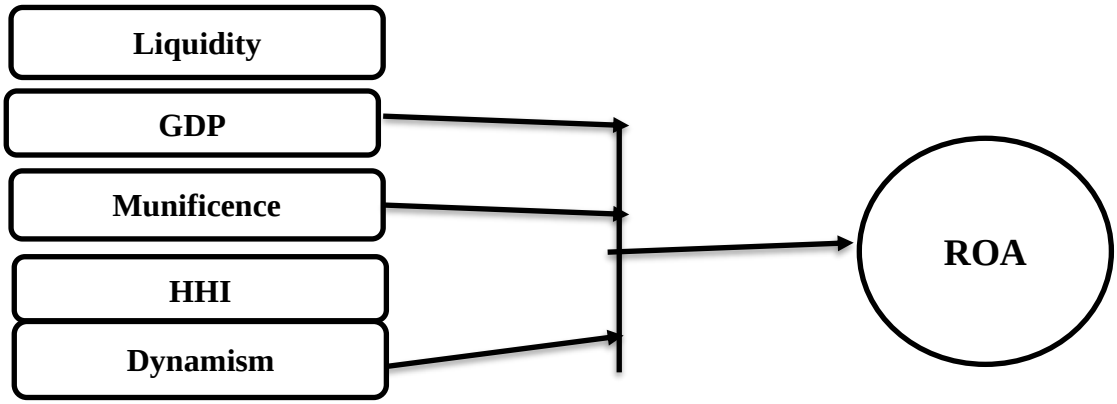
2.1.4.1- MUNIFICIANCE; The word munificence shows the growth of the sectors**.** How much growth full ness is existing in each sector and every sector have a capacity to continue in future. The capability of atmosphere to reservation an endless growth named as munificence this phenomenon argued by Dess, & According to Naveed M and Munawar H. (2018) munificence have positive significant relationship with dividend performance of the firms. The munificence shows the growth of the firms. In line with linter (1956) high growth firms pay more dividend as compare to other firms. In line with Acemoglu (2015) to explaining the differences in economic growth of different countries the risk is very important determinant of firm performance. However, the munificence also plays an important role in the firm's ability to continue (Dosi 2017).

2.1.4.2-DYNAMISM; Dynamism shows the risk of the sector. How much each sector is risky for future investment? Dynamism is a determinant of dividend policy at sector level shows the risk level of the sector. The speed and instability of the environment describe by the dynamism especially in external environment (Dess and Beard, 1984). In line with Acemoglu (2015) to explaining the differences in

economic growth of different countries the risk is very important determinant of firm performance. The listed and bond issuing firms roughly decreasing their capital due to recently financial crises (Lwasaki 2014; Guariglia 2016; Bajra U. and Cadez S. 2018).

2.1.4.3- HHI; To make categories of industries in three different levels the HHI is very popular. The firms working capital requirements always dependent upon the industry Hawawini, Viallet and Vora (1986). In humble arguments, short concentration businesses are unprotected to high risk and high precariousness in effectiveness therefore; they use lesser amount of leverage. In line with Acemoglu (2015) to explaining the differences in economic growth of different countries the risk is very important determinant of firm performance. At corporate level the internal risk has great influence on firm performance identified by (Porter 1998; Yasar 2011; Faruq and Weidner 2018 and Ghoual 2017).

2.3- THEORATICAL FRAMEWORK;



2.4 HYPOTHESIS;

- There is negative significant relationship among liquidity risk and firm ROA.
- There is positive significant relationship among GDP and firm ROA.
- There is positive significant relationship among munificence and firm ROA.
- There is positive significant relationship among HHI and firm ROA.
- There is negative significant relationship among dynamism and firm ROA.

III. RESREACH METHODOLOGY

3.1 TOOLS OF ANALYSIS;

The major tools of analysis will be applied in this study are descriptive summary, correlation matrix the fixed model and OLS regression. The descriptive summary includes the mean, median, standard deviation etc. The statistics summary shows the health of instruments and the correlation matrix highlights the problem of multicollinearity. Furthermore, study focus on OLS to examine the firm performance determinants. The study use panel data that consist on time series and across section. Study also used the fixed affects model. In line with the selection of Hausman test these models also used and supported by (Rashid and Rahman 2009). The fixed affect model provides the mean for controlling omitted variables. This affects also ensure to remain constant or fixed. According to Munklak (1961) analysis theory fixed affects could be for unobserved heterogeneity. In line with Bevan and Daubolt (2004) firms with unique characteristics operating under various sectors can observed the fixed affects model otherwise biased.

3.2 THE SENCITIVITY AND SECTORAL ANALYSIS;

According to Iqbal Z. Munawar H. and Khalique M. (2018) every economy has four different economic collapses like growth, stability crises and recovery period. To make pre and post analysis the whole period is divided into pre and post window of financial crises. Iqbal Z. Munawar H. and Khalique M. (2018) summarized that different factors have different impact in pre growth and post or recovery period. The study remained tapped with sectoral effects; it includes the three major factors of sector level. Firstly, to examine the sectoral effects munificence use as sector level factor. It shows the strengths of the sector. Secondly study use dynamism as sectoral effects, it shows the level of risk within the sector. Finally, HHI indicate the categories of the industries, the study use HHI to make categories of all sectors in two different level. The pre and post analysis consist on the trend of economic collapses. Study divides into pre and post analysis to examine the impact in different collapse like growth, recovery of financial crises.

3.3 VARIABLES MEASURMENT TABLE;

Variables	*Measurements / Proxies*	*Previous Evidences*
Firm Performance	ROA Net Income / Total Assets	Choi et. al, (2013)
Liquidity Risk	Advance deposit / Total Assets (Financial gap Ratio)	**George (2013)** Gathigia Muriithi, (2016)
GDP	Gdp per Capita	Naveed M. (2015)
HHI	By summing the square of percentage of markets share held by the firms within a given sector.	Almazan and Molina (2005) Naveed M. (2015)
Munificence	Regress the time against sales of sector over the period of study Taking the ratio of the regression slope coefficient to the mean value of sales	Beard and Dess (1984) Naveed M. (2015)
Dynamism	Standard error of munificent slope divided by the mean value of sale over same period	Kayo and Kimura (2011) Smith et. al, (2014) Naveed M. (2015)

3.4- ECONOMETRIC MODEL;

$$ROAit = \beta.0 + \beta1\ (LR)it + \beta.2(GDP)It + \beta.3(HHI)it + \beta.4\ (MUNIF)it + \beta.5\ (DYNM)mt + \varepsilon it$$

$$ROAit = \beta.0 + \beta1\ (LR)it + \beta.2(GDP)It + \beta.3(HHI)it + \beta.4\ (MUNIF)it + \beta.5\ (DYNM)mt + \mu i + \mu m + \varepsilon it$$

IV. RESULTS AND DISCUSSIONS

4.1 Descriptive Summery Results (Overall)

	ROA	LR	GDP	HHI	MUNIF	DYNAM
Mean	2.07398	0.413967	3.688	1.64914	1.9526	1.2693
Median	2.16911	0.416667	2.412	0.6831	2.14007	0.698
Maximum	2.2372	3.285714	63.38	6.39526	3.97274	5.6897
Minimum	1.21639	0.015826	2.525	0.22222	-2.3025	-0.693
Std. Dev.	0.21788	0.279844	5.2484	1.88925	1.06327	1.1312

The table shows statistics summary for the determinants of firm performance at three different levels. Firstly, at internal level of non-financial sector the liquidity risk is taken as explanatory factor. Secondly at external level the GDP is taken as external factor. Thirdly the sectoral effects include munificence, dynamism and HHI as sector level factors to influence firm performance in non-financial sector. In line with table the ROA is measurement of firm performance.

Accordance with above results the mean value of ROA is 2.07398 it shows the change in dependent variable. However, the median is 2.16911 lowest figure is 1.21639 and highest is 2.2372. The median exists between the minimum and maximum values. Finally, the standard deviation is 0.21788 it shows the normal risk in the factors. In line with the standard deviation value there is normal risk in the factor.

Furthermore, the mean value for liquidity risk is 0.413967. The lowest figure is 0.015826 and highest is 3.285714. The median is 0.416667 that exist between minimum and maximum values. The standard deviation of liquidity risk is 0.279844 that shows low risk in the factor. Same like the mean value of GDP is 3.688 it shows the change in independent variable or external risk factor. However, the median is 2.412 lowest figure is -2.525 and highest is 63.38. The median exists between the minimum and maximum values. Finally, the standard deviation is 5.2484 it shows the normal risk in the factors. Furthermore, the mean value for HHI is 1.64914. The lowest figure is 0.22222 and highest is 6.39526. The median is 0.683 that exist between minimum and maximum values. The standard deviation of HHI is 1.88925 that shows low risk in the factor. However, the mean value of munificence is 1.9526 it shows the change in independent variable. Furthermore, the median is 2.14007 lowest figure is -2.3025 and highest is 3.97274. The median exists between the minimum and maximum values. Finally, the standard deviation is 1.06327 it shows the normal risk in the factors. In line with the standard deviation value there is normal risk in the factor. Finally, the mean value for dynamism is 1.2693. The lowest figure is -0.693 and highest

is 5.6897. The median is 5.6897 that exist between minimum and maximum values. The standard deviation of liquidity risk is 1.1312 that shows low risk in the factor.

4.2 Correlation Matrix (Overall)

	ROA	LR	GDP	HHI	MUNIF	DYNAM
ROA	1					
LR	-0.11099	1				
GDP	-0.05645	0.136775	1			
HHI	0.09971	-0.04666	0.2101	1		
MUNIF	0.07669	0.031442	0.024	0.03278	1	
DYNAM	-0.27594	0.056308	0.0285	-0.1337	-0.03441	1

Above table shows the results of correlation matrix for factors of firm performance at different levels. At internal level of non-financial sector, the liquidity risk at external level the GDP is taken as external factor. To check the sectoral effects, include munificence, dynamism and HHI are taken as sector level factors to influence firm performance in non-financial sector. In line with above results the ROA is measurement of firm performance. The correlation matrix table highlight the correlation issue. The issue of multicollinearity exists when two or more variables shows same results. In other words when two or more factors shows more than0.70% correlation it means the issue of multicollinearity exist. In line with above results the maximum values of factors is 0.2101. It indicates that there is no single evidence that exceed 0.70%. It also indicates there is no issue of multicollinearity is existing among the factors. The other tools of analysis are given below.

4.3 Fixed Affects Result Model (Overall)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LR	-0.050515	0.024803	-2.036667	0.0421
GDP	0.003678	0.001520	2.420554	0.0158
HHI	2.126925	0.022503	94.51575	0.0001
MUNIF	0.012561	0.005164	2.432667	0.0152
DYNAM	-0.045002	0.006772	-6.645321	0.0001

According to above table the mark of constant for liquidity risk is adverse with vale -0.050515 and its p-value is less than 5% or 0.0421 it means significant. It indicates the association among liquidity risk and ROA is negative significant. The money and government securities as liquid assets comparatively have short revenue, and property with bank provide a different value. The banks maintain assets in liquid form will increase the profit of firms in near future. In line with some previous evidence various researchers reported the adverse relationship among the liquidity risk and firm ROA. One evidence from Pakistan Ahmed, *et. al;* (2012) examined the relationship of liquidity risk and bank performance. Same like Arif, and Nauman (2012) also investigated the highly influence of liquidity risk on firm performance of financial sector.

Furthermore, another variable like GDP, the sign of coefficient for GDP is positive 0.003678 and its p-vale is significant 0.0158. It indicates that there is significant positive relationship exist between GDP and firm performance. In line with previous researchers various argued the positive significant relationship with firm performance. According to Gul, Irshad, and Zaman, (2011) in the issue of effecting Pakistan financial institutions GDP has positive effects on firm performance. The value for HHI shows that there is positive significant relationship among HHI and ROA. Acemoglu (2015) to explaining the differences in economic growth of different countries the risk is very important determinant of firm performance. At corporate level the internal risk has great influence on firm performance identified by (Porter 1998; Yasar 2011; Faruq and Weidner 2018 and Ghoual 2017).

The value for munificence shows that there is positive significant relationship among munificence and ROA. According to Naveed M and Munawar H. (2018) munificence have positive significant relationship with dividend performance of the firms. The munificence shows the growth of the firms. In line with linter (1956) high growth firms pay more dividend as compare to other firms. In line with Acemoglu (2015) to explaining the differences in economic growth of different countries the risk is very important determinant of firm performance. However, the munificence also plays an important role in the firm's ability to continue (Dosi 2017).

The value for dynamism shows that there is positive significant relationship among dynamism and ROA. In line with Acemoglu (2015) to explaining the differences in economic growth of different countries the risk is very important determinant of firm performance. The listed and bond issuing firms roughly decreasing their capital due to recently financial crises (Lwasaki 2014; Guariglia 2016; Bajra U. and Cadez S. 2018).

4.5 Sensitivity analysis; (Regression Results Overall)

Pre (RoA)			**Post(RoA)**	
Variables;	*Coefficient*	*Prob.*	*Coefficient*	*Prob.*
LR	-0.082767	0.0053	-0.08277	0.0343
GDP	-0.002544	0.1121	0.00254	0.0124
HHI	0.001982	0.3853	-0.03987	0.0001
MUNIF	0.026789	0.0012	0.026789	0.0014
DYNAM	-0.043523	0.0001	0.04352	0.0012

Table shows the pre and post analysis for the determinants of firm performance at internal, external and sector levels factors like dynamism, munificence and HHI etc. The pre and post analysis is carried out by investigating the impact on ROA in pre and post of economic crises. The economic collapses have four major collapses. In pre period the factors show different results as compare to post financial period. According to above table the sign of coefficient for liquidity risk is adverse with values are (-0.082767 and -0.08277), its p-value is significant with (0.0053 and 0.0343) in periods. It indicates that the relationship between liquidity risk and firm performance is adverse significant in pre period. In line with some previous evidence various researchers reported the adverse significant relationship between the liquidity risk and firm performance. One evidence from Pakistan Ahmed, *et al;* (2012) the relationship of liquidity risk and bank performance. Same like Arif, and Nauman (2012) also investigated the highly influence of liquidity risk on firm performance of financial sector.

Furthermore, variable like GDP, the sign of coefficient for GDP is positive 0.00254 and its p-vale is significant 0.0124 in post period. In contrast in pre period the results are different like in pre period is adverse with -0.002544 and insignificant with 0.1121. It indicates that there is no relationship exist between GDP and firm performance. In line with previous researchers various argued the positive significant relationship with firm performance. According to Gul, Irshad, and Zaman, (2011) in the issue of effecting Pakistan financial institutions GDP has positive effects on firm performance. Some sectoral level factors show different results in above table.

The sign of coefficient for HHI is adverse -0.001982 and its p-value is insignificant with 0.3853. It indicates that there is no association exists among HHI and firm performance in pre economic period. In contrast the sign of coefficient for HHI is adverse -0.03987 and its p-value is significant 0.0001. It indicates that there is significant adverse relationship exist between HHI and firm performance. Some researchers defined as HHI for the one time outstrips the median of business, then the competitive business can be considered. The firms working capital requirements always dependent upon the industry Hawawini Viallet and Vora, (1986).

The value for munificence shows that there is positive significant relationship among munificence and ROA in both periods from financial crises. According to Naveed M and Munawar H. (2018) munificence have positive significant relationship with dividend performance of the firms? The munificence shows the growth of the firms. In line with linter (1956) high growth firms pay more dividend as compare to other firms. In line with Acemoglu (2015) to explaining the differences in economic growth of different countries the risk is very important determinant of firm performance. However, the munificence also plays an important role in the firm's ability to continue (Dosi 2017).

The value for dynamism shows that there is positive significant relationship among dynamism and ROA in pre period. In contrast the relationship between dynamism and ROA is negative or adverse in post period. In line with Acemoglu (2015) to explaining the differences in economic growth of different countries the

risk is very important determinant of firm performance. The listed and bond issuing firms roughly decreasing their capital due to recently financial crises (Lwasaki 2014; Guariglia 2016; Bajra U. and Cadez S. 2018).

V. DISCUSSION;

It is summarized in the light of previous section the determinants of firm performance used in this study shows highly significant relationship. However, a few variables show negative association. In line with previous section the coefficient for liquidity risk is negative its significant relationship. In contrast another variable like GDP, the sign of coefficient for GDP is positive and its p-vale is significant. It indicates that there is significant positive relationship exist between GDP and firm performance. In line with previous researchers various argued the positive significant relationship with firm performance. According to Gul, Irshad, and Zaman, (2011) in the issue of effecting Pakistan financial institutions GDP has positive effects on firm performance. The value for HHI shows that there is positive significant relationship among HHI and ROA. Acemoglu (2015) to explaining the differences in economic growth of different countries the risk is very important determinant of firm performance. At corporate level the internal risk has great influence on firm performance identified by (Porter 1998; Yasar 2011; Faruq and Weidner 2018 and Ghoual 2017). The value for munificence shows that there is positive significant relationship among munificence and ROA. According to Naveed M and Munawar H. (2018) munificence have positive significant relationship with dividend performance of the firms. The munificence shows the growth of the firms. In line with linter (1956) high growth firms pay more dividend as compare to other firms. However, the munificence also plays an important role in the firm's ability to continue (Dosi 2017). The value for dynamism shows that there is positive significant relationship among dynamism and ROA. In line with Acemoglu (2015) to explaining the differences in economic growth of different countries the risk is very important determinant of firm performance.

VI. CONCLUSION

It is concluded in the light of above discussions that at three different levels the determinants of firm performance are used in the study. Firstly, or at internal level the liquidity risk shows significant association with ROA. Secondly at sectoral level Dynamism, munificence also has explanatory factors that shows significant relationship with ROA. Thirdly the GDP as external factors also have significant association with ROA. Study also makes a pre and post analysis of financial crises to examine the impact in different fiscal collapses. The findings in different economic recessions shows different influence on ROA, due to ups and down of financial resources. The study is limited to non-financial listed firms from the Pakistan stock exchange. Furthermore, the highly capitalized firms included in this study. The findings of study argue that risk at internal and external levels have significant impact on firm performance. The findings supported by high risk high return phenomena. It is summarized that in pre and post analysis the impact is quite different in different economic collapses. The current study has various implications for the users in market. Firstly, this study is appropriate for the stockholders to examine the risk before making investment in various areas. Secondly the study is also applicable for the financial institutions and their managers to make financial decisions. Thirdly study is implacable for the students and other researchers to plaid the impact of risk on firm presentation and make accurate decision. Finally, the study is best useful for scholar, executives, and other finance managers to take risk and make decision. The study is limited to the non-financial sector of Pakistani listed firms. However, the delisted and firms in the forms of merger and acquisition are not included in the study. Same like the financial sector is not part of this study. The unlisted or firms have low criteria also omitted from the study. The study focuses on only listed and highly capitalized corporations form Pakistan stock exchange. It is recommended that in future researchers can make addition by using latest data across the sectors like financial and non-financial. However, the study can be extended applying GMM dynamic modeling etc. Study can be extended across the different markets like China, Pakistan India and Bangladesh etc.

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