



The Impact of Systematic & Non-Systematic Risk on Stock Returns (Oil & Gas Sector) in Pakistan

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Abstract—The research purpose is to examine the impact of Systematic and non-Systematic risk on stock returns (Oil & Gas Sector) in Pakistan. The research design is based on quantitative and longitudinal research in which Secondary data is used to determine the cause and effect of the Systematic and non-Systematic risk on stock returns (Oil & Gas Sector). There were interest rate risk, inflation risk, liquidity risk and credit risk that considered panel least square methodology to examine top 10 companies (listed in KSE-100 Index) data ranging from 2013-2019 in which only privately owned companies were taken which had the same size of business in nature. With respect to the category of the privately owned scheduled commercial oil and gas industries operating in Pakistan. The findings explained that deposits do not have any significant impact upon Stock Return whereas rest of variables interest rate risk, inflation risk, liquidity risk and credit risk were found significant. Top two systematical private commercial companies in Pakistan (KSE-100 Index) are consider in this study, future research can be carried out on large sample size. Although, to avoid uncertainty OGDCL needs to provide deposit stock return on the bases of risk either systematic or non-systematic. Profitability is significant to stock in this study, so policy makers and senior managers need to have systematic risk management strategies in the operations of the company limited. Company Size has been found significant to stock return in this study, so policy makers and C.E.O need to maintain higher stock return by ensuring and creating customer relationships with depositors and investors to attract more returns in terms of profits.

Keywords— Systematic risk, Interest rate risk, inflation risk, non-Systematic risk, Liquidity risk, credit risk and Stock Return.

I. INTRODUCTION

Now a days, the diversification in stock market and its working request in economy was accompanied from European industrial upheaval. Because of detachment of owner-manager standard, the interest for capital and furthermore money related possessions improved. This be located the primary influence for setting up stock return in industrial countries. examples of the type styles are provided throughout These days, Stock

Argument remains the principle segment of budget in furthestmost created and creating nations. Financial specialists accept that land, labor and capital are the main fundamental variable in the factor of production, however capital is one of the most significant of them [1]. Exact outcomes demonstrate that financing cost, lodging business sector and gold cost can incredibly influence the economy and securities exchange. Recorded experience demonstrates that in nations during time of securities exchange droop, the gold market consistently has upswing [2]. As per Pakistan Stock Exchange's monetary information, the vast majority of the changes have been occurred in this bazaar in last binary periods ago. These vacillations influenced macroeconomic factors besides financial exchange of Pakistan. In this manner, this article looks at the effect of systematic & Non-Systematic risk on Stock Returns including liquidity and credit risk on stock cost in Pakistan. Thought of subsidizing in the idea of capital asset pricing version (CAPM) characterizes risk as beta (β) [3].

Capital in stock exchange develop an essential character in establishing the economy of whole country due to huge amount of investment in stock market across the world [4]. Thought and estimation of chance is basic to gain the exceptional investment decisions. One in all them, completed with the guide of foreseeing orderly and non-deliberate risk by expertise of the utilization of financial information and common execution displayed in money related proclamations. This is individuals consider the substitute off sandwiched between foreseen return and risk in financing choices. Risk and return relations are certain and direct. The sophisticated the hazard, the better the predicted reappearance, and the different way. In this manner, financial specialist desires to get the most outrageous come backs with a positive component of risk [5].

A. Research Objective

To conduct a detailed energy audit to spot the economic chance exposure for the businesses falling inside the energy sector of oil and gasoline market. To develop systematic & Non-Systematic risk. The performance indicators interest rate, inflation rate, liquidity rate and credit rate for different processes for sustainable development under stock market management system and to highlight the implementation to improve Pakistan stock exchange performance.

B. Systematic Risk

Systematic risk is the chance of danger of losing investments or decrease the value of assets because of external factors for instance, political danger and macroeconomic danger, which impact the presentation of the overall market. Although, Systematic risk is also known as "Market Risk" or "Undiversified Risk" [6]. It is the uncertainty inherent to the market. Market risk is otherwise entitled instability and can be estimated utilizing beta. Beta is a proportion of a venture's methodical risk through reverence to the general bazaar [3]. Risk related to investment is associated with investor's major concern because of profit from investments. Therefore, assistant capitalist perpetually desires to reduce its risk. Systematic risk can even be taught off because the cost of put cash in risk, the foremost basic strategy for minimizing systematic risk is diversification [7]. Interest rates, recession etc. entirely represents sources of systematic risk as a result of they have an effect on the complete market.

C. Non- Systematic Risk

Non-Systematic or Unsystematic danger is otherwise called the diversifiable danger or the remaining danger; the equivalent can be controlled or limited by various factors that are in the control of an association.

Unsystematic danger can be likewise be portrayed as the frailty natural in an association or industry speculation. Kinds of unsystematic danger contain another rival in the commercial center with the possibility to take significant piece of the pie from the association put resources into, an administrative change, a move in administration, as well as an item review. While speculators might have the option to envision a few wellsprings of unsystematic danger, it is difficult to know all or when/how, these might happen.

Computing non-deliberate danger is definitely not a difficult undertaking. Dispose of the relative multitude of methodical dangers from a speculation. The best method of doing this will be simply setting up a straightforward inquiry – "Would this be able to be supported against?" Overall, a non-methodical danger is the one wherein the financial specialist can evade the truth by undercutting or simply consenting to a fates arrangement. Another thought is whether the danger limit through expansion. An answer in a yes would show a non-methodical danger. Determine whether the administration of the organization being put resources into can show any effect on its danger. Assuming this is the case, at that point it is considered as another non-orderly danger. In contrast to non-efficient danger, orderly danger is hard to be overseen against for they have sway mostly ventures rather than single speculation.

II. LITERATURE REVIEW

In current scenario, Pakistan witnesses Market risk and specific risk which are two distinct types of risk that influence resources. Two classes can isolate all speculation resources: systematic risk and non-systematic risk. Market risk, or systematic risk, influences an enormous number of assets classes, although explicit threat, just influences an engineering otherwise detailed organization.

It has been observed that, way to important changes in monetary external situations due to political un-stabilization, the systematic danger fluctuation rectangular degree important and comparatively the changes in the inventory returns rectangular degree numerous. Interest rates and currency exchange rates are the expense for borrowings and obligation the executives for any organization [8].

The main purpose of this look at is to analyze that to extent, there may be any relationship existence amongst chance variable and inventory returns. Also this study intends to seek out that whether or not selected stocks return is extra risky to systematic or unsystematic risk. Considerably previous, another research distinguished no presence of relationship among the financial factors and furthermore the stock returns inside the short run, yet quickly run these factors territory unit seen to result the stock costs [9].

Pakistan's financial exchange's presentation includes a high reliance on the political situation of the nation.[10] distributed a test to investigate the relationship among interest rate and market file of Pakistan's protections and situated out a negative relationship between them, the upper the rate, the lower will be the exhibition strength of the protections showcase severally. This investigation joined data of ten years from 2004-2013. The study will persuade be treasured for buyers in addition as economic coverage makers by means of information the nice or terrible dating among systematic danger and monetary variables. Buyers can realize it beneficial due to they need maximization of returns through minimizing chance whereas, the financial coverage makers will decorate the earnings and efficiency of the firm through decreasing danger.

Researchers worries the supportable relationship for the amount 1962-1981 between securities exchange returns and therefore the incidental variables; beta, remaining variance (or mixture change), and size [11]. They acknowledged that neither common place live of danger (beta) nor the systematic risk measures (difference or leftover standard deviation) will clarify the cross-sectional selection in returns; simply mass seems to matter. Elective measureable details and totally different estimation methods area unit connected to a so much reaching, glorious info set that stretches out from 1971 to 1988 [12]. It describes cross sectional contrasts in benefits for Japanese Stocks to the crucial direct of three factors: monetary profit yield, size and book to plug extent. The example consolidates each gathering and non-assembling company associations from each sections of the Edo trade delisted protections. Their revelations uncover a critical connection between these factors and expected returns inside the Japanese Sector of the four factors thought about, the book to plug extent and monetary benefit yield have the first pivotal positive effect on anticipated returns.

Previous works found that completely different measures of securities exchange action are un-questionably connected with measures of real financial development crosswise over nations, which the affiliation is very solid for making nations. Their outcomes likewise demonstrate that within the wake of dominant for starting conditions and money and political advancement are powerfully related to gift and future rates of financial development and potency modification [13].

III. RESEARCH METHODOLOGY

The methodology approach is explanatory in nature which discusses about cause and effect among different variables. The research method used in this study is based on deductive subsequently; the conceptual and theoretical framework is established on the theories discussed by the authors in the literature review.

The research design is based on quantitative and longitudinal research in which Secondary data is used to determine the cause and effect of the variables upon Stock return of private companies limited. Correlation Test (Pearson Correlation) will be used to identify the cause and effects of the above-mentioned determinants.

The research purpose is to examine the impact of systematic and non-systematic risk variables upon Stock return. Previous researches done in Pakistan were based on Oil and gas industry profitability in which almost same conceptual framework was adapted and adopted by the researchers to determine the significance of companies-specific indicators upon its profitability and liquidity. However, we will adapt and adopt the framework to determine the significance of companies specific factors upon its stock return so that in near future if any kind of global crisis hits the globe the precautionary measures to avoid worse circumstances could be tackle easily by the policy makers.

The research considered balanced data of top ten commercial companies' which only privately owned commercial companies were taken which had the stock size of it in nature and listed in Karachi stock exchange with respect to the category of the privately owned firms operating in Pakistan. As, these companies are the market leaders in the industry hence, we have only used these companies to identify the factors that create influence on their stock return problems in the market as a whole collectively.

Secondary data sources are used in which different corporate companies' (from oil and gas industries) reports, Statistical bulletins, and other important financial journals are used.

SPSS Software is used in which Multiple Linear Regression and Correlation Statistical technique are applied in the research to test the hypothesis.

Following are the variables with sub types that are used to determine the stock outcomes:

Independent Variable.

Systematic Risk:

- Interest Rate risk
- Inflation risk

Non-Systematic Risk

- Liquidity risk
- Credit risk

Dependent variable.

- Stock Return

IV. RESULTS

Data has been taken from secondary data and processed by SPSS and MS Excel software. Quantitative analysis measure the data using descriptive data form, then encoding the data in the excel workbook. Before moving forward to econometric analysis, statistical analysis is done by using the descriptive statistics analysis given below the table.

A. Descriptive Statistics

TABLE 1. DESCRIPTIVE STATISTICS

N	Range	Minimum	Maximum	Mean	Std. Deviation	Variance	Skewness
70	6.98	.37	7.35	1.79	1.45%	2.11	2.07
70	3637 2.90%	- 1259 .90%	35113 .0%	939. 15%	4363. 99%	1904 4415 .8	7.29
70	4.25%	5.75%	10.0%	8.17%	1.84%	3.41	-.30
70	8.50%	2.50%	11.0%	5.90%	2.91%	8.49	0.56
70	290. 0%	- 44.2 %	245.8 %	55.3 3%	66.54 %	4309 .11	0.83

The above table is showing descriptive statistics in which the average of liquidity risk (LR) is 1.7960 with the standard deviation of 1.45280. The average of credit risk (CR) is 939% with the standard deviation of 4363%, the average of Interest risk (IR) is 8.17% with standard deviation of 1.84%, the average of Inflation rate risk (INFR) is 5.90% with standard deviation of 2.90% and the average of Stock Return(SR) is 55.33% with standard deviation of 65.64%. The Skewness of asymmetry probability distribution of interest rate is negative whereas of all the other variables (Liquidity, credit, inflation) is positive.

B. Correlation

TABLE 2. CORRELATION TEST

	Mean	Std. Dev	LR	CR	INFR	IR	SR
LR	1.79	1.4	1				
CR	939.0	4.3	-	1			

			0.127				
INFR	8.17	1.8	0.039	0.106	1		
IR	5.90	2.9	0.009	0.140	0.67	1	
SR	55.0	6.5	0.081	- 0.212	0.03	- 0.26	1

C. Interpretation

The correlation analysis tells us about the coefficient linear relationship between independent variables to the dependent variable in which clear picture of movement of a variable to other variable is shown. The positive relationship gives us the information that both variables are directly proportional to one another whereas, negative relationship shows they are inversely proportional with respect to linear relationship. The above table shows Liquidity hazard on Stock return deciphers that there is a solid connection between these factors. The connection of Credit hazard on Stock return deciphers that there is a feeble connection between the factors. The correlation between Interest rate risks on Stock return interprets that there is a moderate relationship between these variables. The correlation of inflation rate risk on stock return shows positive relationship between these variable.

D. Summary of hypothesis testing

TABLE 3. SUMMARY OF HYPOTHESIS TESTING

S.No	Variable	Test	Sig.	Decision
1	Interest risk rate	Regression Analysis	.028 ^b	Reject H0
2	Inflation rate risk	Regression Analysis	.808 ^b	Reject H2
3	Liquidity risk.	Regression Analysis	.506 ^b	Reject H3
4	Credit risk.	Regression Analysis	.078 ^b	Reject H4

E. Discussion

This study investigate the systematic (Interest rate, inflation rate) and non-systematic (liquidity risk, credit risk) elements of the stock return. The results of the research showed that each of the studied factor or variable of the stock return effect the market.

The motivation behind this investigation is to survey of the impact of loan cost on stock return in KSE-100 record and long haul sway on stock cost in Pakistan stock Market. After explanation and assessment of the model, the quantitative technique applied. The outcome demonstrates that there is an incorporated vector for these factors. The assesment shows that there is a positive connection between premium danger and stock market. Moreover, the impact of ostensible loan fee on stock cost is negative. Genuine loan cost has been diminishing by ostensible rate development for study years. In this way, genuine loan fee is consider as rebate rate in Pakistan. At last, short-run relations among factors have been contemplated. The information show that dynamic cooperation

with stock value slack to the chose factors changes may speak to Karachi stock market productivity which will later on effect on Pakistan stock market. The discoveries can assist create compelling dreams with setting and satisfy government's financial arrangements (money related and monetary) to accomplish steadiness in monetary market. Macroeconomic factors should be coordinated so that loan cost effect on monetary market and capital will be important for the public authority to give fitting environment to extend monetary market in Pakistan economy.

In synopsis, our proof on the circumstance diminishes, just as on the sensitivities of low-assessed firms to ponder risk factors shows that the conditions around cut back causing the growing danger sway have all the reserves of being driven dominantly by indisputable forces. Largely, the confirmation does not uphold the peril based explanation for the lower returns on most raised development danger on stocks return.

In the system of momentum research, this is conceivable under response does not trigger the return differential over the rating. In its place, it is the low returns acknowledged by low-appraised stocks around minimize (both previously, then after the fact) that offer ascent to the negative connection between expansion rate and stock return. These low returns might have happened on the downsize day with the market responding completely to rating minimize. Then again, the low returns could get over a more extended period within the sight of potential under response. In one or the other case, the expansion hazard impact would exist. In addition, eliminating returns in the wake of rating minimize does not dispose of the criticalness of the swelling hazard. This recommends that the negative expansion hazard return connection is not a sign of the recently recorded under response to rating downsize.

On the bases of the result and conclusion following recommended measures should be taken by the policy makers, board of directors and government institutions to avoid the critically of stock return and preventive measures can make financial institutions strong in worst case scenario of any global crisis.

V. FUTURE RESEARCH

The future research can be done by adding more stock return variables like cost of assets, liquidity gap, non-performing loans and their impact on the Stock Market risk. Moreover, macro-economic factors like GDP, inflation and unemployment can be studied too. The comparative study between private, public and foreign organization can be studied or different types local organization involving in oil and gas business in Pakistan it can be key area of interest in future studies. The increased sample size by taking a statistical report of 1 decade, which can explain the results further, or new conclusions can be derived from with larger sample size.

CONCLUSION

The research has been summarized in a way that the objective of the study was to investigate the relationship of systematic risk and non-systematic risk to stock return, statistical figure shown the five-year data of oil and gas companies organizing in Pakistan. While, the study has supported the prior study's

findings that rate of inflation, liquidity and credit risk is negatively correlated because they have less diversified investment and operations in stock value. Assets return ratio has also found significant results that shown strong impact on interest risk of stock return. In addition, hypothesis of advantage is reject. Moreover, organization size is found correlated positive with interest risk rate in Karachi stock exchange.

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