

Impact of Credit and Systematic Risk on Firms Value: Moderating Role of Corporate Governance Quality and Political Stability in Asian Developing Markets

Munawar Hussain (Corresponding Author)

Ph.D. Scholar, PMAS-Arid Agricultural University Rawalpindi Pakistan (PMAS)

University Institute of Management Sciences (UIMS)

munawar.hussain@numl.edu.pk

&

Bushra Zulfiqar

Assistant Professor, PMAS-Arid Agricultural University Rawalpindi Pakistan

University Institute of Management Sciences (UIMS)

bushra.zulfiqar@uaar.edu.pk

Abstract

The aim of this study is to examine the impact of credit and systematic risk on firm value, moderating role of political stability and corporate governance quality across the Asian developing markets for non-financial listed firms. The dependent variable is firm value measured by using Tobin's Q model, ROA and stock return. The data was collected for listed firms across the developing markets. Major sources of data were FSA, BSA and annual reports of firms. Study used stratified simple random sampling technique. The time-period of study was 2013- 2022. Finally, credit risk (CR) reported negative significant impact on firm value in context of Pakistan, Bangladesh, Nepal, Jordan, Sri Lanka and Iraq but positive significant in Turkey. In contrast, systematic risk demonstrated a positive and significant relationship with firm value. Moderating role of political stability in relationship of systematic risk on firm value positive significant in Pakistan, Bangladesh, Bahrain, Sri Lanka, Jordan, Iraq and Turkey except Nepal reported negative significant. Contrary, political stability negatively moderated the relationship of credit risk is negative significant. Furthermore, in context of Pakistan and Bahrain, Iraq and Turkey corporate governance quality (CGQ) probability for CGQ-SR positive significant. It is stated that CGQ positive significantly moderates the impact of systematic risk on firm value in these markets. Contrary, Bangladesh, Sri Lanka, Jordan and Nepal reported insignificant moderation by CGQ due to lower quality and deficiencies. Finally, CGQ negatively moderated the relationship of credit risk and firms value in context of Pakistan, Bangladesh, Bahrain, Nepal, and Iraq, but positive significant moderated in Turkey, contrary insignificant only in Jordan and Sri Lanka. Study is implacable for researchers, investors and policy makers, the Govt. and managers of relevant sectors/firms. In future the study can be extended by making sensitivity and sectoral analysis for the determinants of firm value in different economic recessions.

Keywords: Systematic Risk, Credit risk, GDP, INF, CGQ, Political Stability

Introduction

Risk can be defined as “anything that can obstruct the achievement of a specific goal. Once risks can be identified and quantified, one of the first tasks is to manage them. To gain sustainable economic progress, the performance of a firm is a vital basis (Awais, Thaker, Raza, Usman, Mohsin, & Bhatti, 2021). In the research agenda, the performance of the Firm is considered a big interest in corporate finance. All beneficial firms that create ideals, pay government tariffs, promote modernization, and hire people are cost-effective. Investigating the provocation of firm performance may sustain penetration in what drives performance up and down.

The background of Asian developing market is probability differ from most advanced economies. In Asian developing markets i.e. Pakistan, Bangladesh, Nepal, Sri Lanka, Bahrain, Iraq, Turkey, and Jordan etc. Although these markets are consisting in developing markets, but some have more politically stable as compared to others. Similarly, the CGQ in developing markets mostly with same weights or minor differ. It is stated that the firms listing in these markets face many challenges i.e. political and CGQ influences etc. The macroeconomic factors of these markets are also different and in average as compared to most advance markets. The stronger CGQ and stable market gradually increasing the firms value for their investors. In

contrast, firms existing in lower market areas losing its values and shifting of investments is a common practice in line with developing market to advance. In line with Iqbal, Hussain, Khalique, and Tabassum (2020), sectors has a significant role in economic development of country. Every market has different economic recessions growth, stability crises, and recovery period. Unfortunately, risk are those factors that can influence the process of continues growth. This study is adding credit and systematic risk to evaluate its impact on firm value for Asian developing markets. Study also using moderating role of Corporate Governance quality (CGQ) and political stability in Asian developing markets.

Firm value represents the total company's worth in the market. It is calculated by adding the debts value of company and its market value. The market value for equity is the number of outstanding shares of a company multiplied by its stock price, while the present value of cash shows market strength. Higher firm value indicates a firm's ability to engender cash flow and grow its earnings over time. Previous research has found a positive relationship between firm value and financial performance measures such as profitability, liquidity, and leverage. Possibilities of losing money or not achieving desired outcomes called risk from an investment or business decision. The determinants of firm value from Korean market, the independent variable used to earn management and moderating role of corporate governance quality. However, the risk is necessary to evaluate the moderating role of CGQ in line with firm's value.

This study mainly incorporating credit risk and systematic risk as independent variable of firm's value. Credit risk with its instruments used and developed in z-score retain earning, total assets, sales, liabilities, working capital and EBIT etc. Credit risk defined as "borrowers or creditors may not fulfill their obligations" this leads to defaults and distress. Credit risk has a significant influence on cash flow; hence firms can maintain its value and timely return with operational activities. Altman in 1993 developed a strong Z-score for the measurement of credit risk at industry level. Recently, a few authors linked with the performance of financial sector as well (Azam, Khan, Fahad, & Akhtar, 2023). The consequences of credit risk in Asian developing markets differ as compared to developed markets. Similarly, due to lack of credit risk, shortage of funds firms value adversely influenced. The CGQ and political stable environment markets can play a vital role in increasing the firm's value or vice versa. Finally, underpinning assumptions of agency theory study incorporating moderating role of CGQ, other side political stability is caring out with innovative approach with the assumptions of stakeholder theory, in which firms consider all factors. Firms create value or destroy it with the interaction of stakeholders simultaneously, not focusing only share holder.

On the other hand, systematic risk is macro level risk, in context of markets systematic risk consisting of entire market risk, inflation rate, exchange rate, uncertainties and natural disasters etc. number of researchers used beta as instrument measurement of systematic risk i.e. (Choi, Kim, & Park, 2020; Naveed, Hussain, & Bilal, 2018; Song & Lee, 2025). This study is contributing mainly to existing literature with the impact of systematic and credit risk on firm's value, moderating role of political stability and corporate governance quality. At macro level stable political environment can play an important role in mitigating this risk, similarly at firm's level strong CGQ is also considerable. To increase the stock market index moderators also have a significant role, at domestic level firms, sectors and industries lead to economic value. It is stated that non-financial sectors have great contribution in economic value.

According to Naveed, Hussain, and Bilal (2018) the significance of sectors in the fiscal progress of country can't be eradicated. Performance and value of firms is evaluated using matrices such as ROI, remaining income, earning per share, earning per share, dividend yield, price-to-earnings ratio, sales growth information, marketplace capitalization, etc. Thus, this study tends to investigate the effects of risk factors (systematic risk credit risk), also adding control variables leverage, firm size liquidity, GDP and inflation etc. on firm's value measured by using ROA, Tobins,Q and stock return.

Political instability can cause the firms value and increase the risk. Recently, Alemu and Worku (2025) also used the political instability and corporate governance mechanism for firm's performance. The study reported the ownership structure, institutional ownership, managerial ownership, and minority shareholders to evaluate the role of corporate governance in firm's manipulation and its value for investors. The findings of study showed that ownership structure as element of CGQ positively influenced the market Performance that leads

to investor's confidence. This study used Ownership concentration and CEO ownership as managerial concentration as measurements of CGQ.

Gap Analysis

Firstly, the measurement of systematic risk by using change in variance mainly remained less explored. In existing literature researchers used beta and variance as measurement of systematic risk i.e. (Naveed, Hussain, & Bilal, 2018). However, the change in variance is main contribution of this study. This study mainly adds change in variance as measurement of systematic risk and then its impact on firm value. Secondly, study also adding credit risk as independent variable of firm value for non-financial listed firms in Asian developing markets. In this regard, the concept of credit risk mainly remains less explored for non-financial listed firms because this is repeatedly used for financial sectors. Another aspect the Asian developing markets are mainly less explored specially with the moderating role of political stability and corporate governance quality.

Finally, the moderating role of corporate governance quality of Asian developing markets with nine different items is also added firstly in this study. Furthermore, the moderating role of political stability also remained less explored, especially in context of developing markets. The statement argued that political stability leads to economic stability (Awais, Aziz, Usman, & Bhatti, 2021). This study mainly focuses on developing markets where the lack of political stability caused adversely. Theoretical extension moderating role of political stability underpinning assumptions of stakeholder theory remains less explored.

Problem Statement

There are several problems related to the impact of systematic and credit risk on firm value. Firstly, while there is a significant amount of research that has been conducted on this topic, there is still a lack of consensus on the precise effects of these types of risk on firm value. Another problem is that companies face challenges in managing systematic and credit risks effectively, particularly in different economic conditions. In the light existing body of literature number of researchers examine the firm value across different markets i.e. (Naveed, Hussain, & Bilal, 2018). The question remains untapped which are the most important risk influences that can impact the firm's value to achieve the objective efficiently? It is a very common problem in various developing markets. Today business environment faced several risks that cause changes occur at both internal and external levels. This makes the firms performance very complex to predict its future with accuracy. However, the degree of environmental changes is not a big matter but the firm's capabilities to deal the risk occur due to some internal, external factors is a big challenge.

The research objectives of this study in line with credit and systematic risk as independent variable and moderating role of CGQ and political stability are as follows. (1) To examine the effect of credit risk on firm's value for non-financial listed firms in Asian developing Markets. (2) To evaluate the effect of systematic risk on firms' value of non-financial listed firms in Asian developing Markets. (3) To check the moderating role of Political stability in impact of credit risk on firm value for non-financial listed firms in Asian developing Markets. (4) To check the moderating role of Political stability in impact of systematic risk on firm value for non-financial listed firms in Asian developing Markets. (5) To examine the moderating role of CGQ in impact of credit risk on firm value for non-financial listed firms in Asian developing Markets. (6) To evaluate the moderating role of CGQ in impact of systematic risk on firm value for non-financial listed firms in Asian developing Markets.

Accordance with research objectives, current study considering following research questions that mainly remain less explored in previous literature and need to incorporate for developing Asian markets i.e. what is the impact of credit and systematic risk on firm's value? Similarly, in line with moderating role what is moderating role of CGQ in impact of credit and systematic risk on firm's value? Finally, accordance with political stability what is moderating role of political stable market in impact of credit and systematic risk on firm's value of Asian developing markets? After incorporating mentioned research objectives and research questions study practically ensuring the significances for investors, managers, and policy makers, to reach out the economic stability because political stability can lead to economic stability or vice versa.

This study has some significance including economic benefits for stakeholders. The economic benefits include managers, shareholders, investors, and especially the non-financial sector. The sector has importance to deal

with the cetin categories of risk, control the risk, and diversified the risk in a proper mechanism. The investors can review the decision due to certain risks faced by firms at both internal and external levels. In case of lack of uncertainty, the asymmetric can be controlled.

Literature Review

Firm value is the consequence of managing achievement in financial positions (Awais, Kiani, Thas Thaker, Raza, & Qaim, 2021). ROA processes a company's ability to proficiently manage its assets to produce returns or returns for stockholders. The impact of systematic and credit risk on firm value has been widely studied in finance and economics literature. CAPM and Fama-French three-factor model have been used to examine the relationship between risk and return. However, recent studies have highlighted the limitations of these models and have suggested alternative approaches to measuring risk and its impact on firm value. For instance, some industries may be more sensitive to systematic risk factors such as interest rates and market volatility, while others may be more affected by industry-specific factors such as technological innovation and regulatory changes. Similarly, the impact of macroeconomic variables on firm value may vary across countries, subjects on dynamics such as political stability, exchange rates, and trade policies.

The theoretical perspective of risk is associated with the assumptions of Markowitz (1952). Markowitz proposed new risk measuring concepts and applying them to portfolio selection. They started with risk measuring ideas and how they relate to portfolio selection. He started with the concept of the average perceived risk of investors and their ambition to maximize their overall return with less risk. Markowitz model is thus a theoretical structure for the investigation of risk and return and their inner relationship. His framework gives rise to the idea of an efficient portfolio. Markowitz created the number of portfolios based on a given total of money and wealth and preferences.

Wijaya and Wijaya (2025) documented the ownership concentration in a systematic literature review evaluated the CGQ influenced in organizations audit quality and performance. The audit committee consists of number of auditors included in panel. Hence, this study provides a strong argument by conducting SLR on ownership concentrations and audit committee. Furthermore, concentrated ownership may cause weaken oversight due to conflicts of interest in Santosa, Setianingrum, and Yusuf (2022), contrast the diversified ownership structure improve transparency, good audit oversight and accountability.

Recently, Abulazm, Sakr, and Hamza (2025) documented the CGQ mechanism by using board independent, board size, audit quality, meetings, CEO duality, and ownership structure etc. The measurements are fully supported and report the contrast consequences. Furthermore, Kahan and Catan (2025) evaluated the impact of CGQ on firm value. The findings indicate a significant influence on firm value.

Most recent, several researchers examined the firm's performance by using various explanatory factors. According to Nguyen, Phan, and Hang (2024) performance of firms manifests the relationship among coming consequences and resources utilized in operating and business activities. Furthermore, when the performance of a company gets increased, it can be estimated from the ceaseless activities of the company for the formation of profits. Moreover, liquidity risk, credit risk, and market risk also affect firm performance.

Credit risk is the most significant variable affecting firms and financial performance. Credit risk is determined by asset quality. Recently Ajmal, Khan, Shad, AlKatheeri, and Jabeen,(2022) performed an empirical analysis on the financial sectors of Pakistan. Firstly, in advanced markets research on a firm's performance remained highly explored, by the major researchers (Kimura, Basso, & Kayo, 2015; Prieto-Carrón et al., 2006). Prieto-Carrón et al. (2006) and one must choose the most appropriate measure to be used measuredly depending on whether it is asserted that the firm pursues maximization profit, production level, and customer satisfaction. We assume profit-maximizing firms and, accordingly, we measure their performance by variable relating to profitability. In the agriculture industry, extensive research has been conducted on the aspects and drivers that influence financial performance. This study was conducted in the U.S. to examine the factors that influence business performance. Furthermore, a favourable correlation linking leverage and company operations when the environment is stable.

According to Kimura, Basso, and Kayo (2015) firms that operate in the same sectors and industries have similar qualities thus they anticipate working in the same environment. Most of the studies look at the factors

that determine capital spending level, with some fixing on country-level matters and recognized difference between developed and developing economies. The sensitivity analysis method is commonly applied to help make investment decisions regarding capital budgeting due to lack of performance. According to Akbar and Lanjarsih (2019), Capital adequacy has an impact on financial performance in Kenya's commercial and services industry this research is to recognize the link between assets infrastructure and firms' financial performance. The three major indicators used in literature to examine the firm's performance are ROE, ROA and ROI etc.

Firm performance can be measured by various methods. ROA is the most common measure of firm performance. Accordance with shreds of evidence, numerous researchers used ROA as the measurement of the effectiveness of firms. Profits serve as a headrest against opposing circumstances such as losses on loans, or losses affected by unpredicted fluctuations in interest rates (Gitogo, 2013). ROE is effective income scrabbled by the market value of equity and ROA is net income scaled by total assets.

Theory

Numerous studies have veteran the rationality of the CAPM and the relationship between systematic risk and firm value. One study by Fama and French (1995) found that beta was not a significant predictor of stock returns after controlling for firm size, book-to-market ratio, and momentum. This study challenged the validity of the CAPM and suggested that other factors may play a role in explaining the relationship between risk and return. A firm's total risk (systematic & credit) was positively related to its expected return. This study suggested that investors require compensation for both types of risk and that ignoring credit risk could lead to biased estimates of the relationship between risk and return. The impact of systematic and credit risk on firm value is a research topic that is related to the field of finance and economics. There are several theories that can be used to support this research topic, including Agency theory, CAPM, and Stakeholder theory.

According to the CAPM, the systematic risk of a firm, as measured by its beta, should have a significant impact on its value. The Capital Asset Pricing Model (CAPM) ruptures total risk into two components: systematic (non-diversifiable) and credit (diversifiable).

Agency theory suggests that the relationship between a firm's managers and its shareholders can impact the firm's value. Managers may have incentives to take on risky projects, even if they are not in the best interest of shareholders, which can increase the firm's credit risk. Conversely, managers may also have incentives to avoid risky projects, which can impact the firm's systematic risk.

Stakeholder theory states that firms not only maximize shareholder wealth but also consider the stakeholder, including employees, government, customers and suppliers etc. Firm can engage in different ways to increase the value, risk reduction, reputation and image of market, and value creation by satisfying stakeholders with loyal driven sales, productivity, and ensuring quality inputs.

Variables

Dependent Variable Firm Value

Firm value can be demonstrated from the stock price level that designates the future predictions of the company. The market value for equity is the number of outstanding shares of a company multiplied by its stock price, while the market value of debt is the present value of its future cash flow. Higher firm value designates a business's ability to generate cash flows and grow its earnings over time. Previous research has found a positive relationship between firm value and financial performance measures such as profitability, liquidity, and leverage. The dependent variable is measured by using three different proxies i.e. Tobin's, Q, ROA and stock return. These three measurements are used in the baes of test and re-test phenomena.

Independent Variables

Systematic Risk

Systematic risk is overall market risk, including various factors i.e. inflation, exchange rate risk and uncertainties. This risk is not controllable by investing in a portfolio of securities because it is not specific to any particular security or industry. Similarly, an increase in interest rates may cause bond prices to fall and

stock prices to decline as investors move their money out of stocks and into bonds. Firm value is derived from market capitalization, which is essential for well-governed firms. Equity shares increase market capitalization, which increases firm value. Considering firm value is essential for well-governed firms.

H1: There is significant impact of systematic risk on firm's value.

Credit Risk

Credit risk is lack of obligations by the borrowers, or defaults on your expected receivables. This type of risk is not related to the overall market or economy and is specific to a company or industry. Credit risk significantly influenced the firm's Performance of developed market. However, the moderating role of CGQ needs to be incorporated in future to enhance more effectiveness. By farming a diversified portfolio, stockholders can diminish the impact of credit risks that affect individual companies or industries. This is because events that affect an individual company or industry can still occur despite diversification, and some level of credit risk will always be present in an investment portfolio. The study used Altman z-score i.e. X1; working capital, X2; Retain earning, X3; EBIT, X4; market to book value, and X5; sales to assets as supported by (Spulbar, Cinciulescu, Ene, & Spulbar, 2025). The hypothesis on the base of existing evidence is as follows.

H2: There is significant impact of credit risk on firm's value.

Control Variables

Firm Size

Firm size is repeatedly comprised as a control variable in financial research, as it can affect firm performance and the risk-return relationship. Larger firms tend to have more diversified portfolios and may be less affected by credit risk compared to smaller firms. Furthermore, larger firms may have access to more financing opportunities, which may affect their cost of capital and ultimately their firm value. Previous studies have found a positive relationship between firm size and firm value (Fama & French, 1995).

H3: There is significant impact of firm's size on firms' value.

Liquidity

Liquidity is a measure of the ease with which an asset can be bought or sold in the market without affecting its price. In the context of financial markets, liquidity is an important determinant of asset prices and expected returns. Higher liquidity can reduce transaction costs and increase market efficiency, leading to lower risk and higher firm value. In addition, higher liquidity can reduce the impact of idiosyncratic events on stock prices, thereby reducing credit risk. Previous research has found a positive relationship between liquidity and firm value (Jihadi, Vilantika, Hashemi, Arifin, Bachtiar, & Sholichah, 2021).

H4: There is significant impact of liquidity on firm's value.

GDP

Higher GDP growth can lead to increased demand for goods and services, leading to higher revenue and profitability for firms. This can increase the expected returns and ultimately increase the firm's value. Previous research has found a positive relationship between GDP growth and firm value (Faradila & Effendi, 2023). Macroeconomic variables such as GDP and inflation (INF) have also been found to affect firm value. GDP growth has been found to be positively related to firm value, as it indicates favorable economic conditions and higher demand for goods and services (Faradila & Effendi, 2023). However, inflation has a negative impact on firm value, as it erodes the purchasing power of consumers and reduces profitability (Hong, 1977).

H5: There is significant impact of GDP on firm's value.

Inflation

Inflation is a quantity of the rate at which the universal level of values for goods and services is rising over time. It is an important macroeconomic variable that can affect the purchasing power of consumers and the profitability of firms. Prior researchers Barnes, Boyd, and Smith (1999) reported positive correlation between inflation and return.

H6: *There is significant impact of Inflation on firm's value.*

Leverage

The debt is an important variable at firm level. It consists of short-term and long-term debt. Previous research has found a negative relationship and firm value (Hong, 1977). The few empirical studies that have observed the connotation between return and risk in firms, as dignified by standard deviation or variance in accounting ROI, have produced inconsistent conclusions.

H7: *There is significant impact of leverage on firm's value.*

Moderator

This study used two different moderators i.e. CGQ and Political stability in Asian developing markets. Underpinning assumptions of agency theory the CGQ is used to evaluate the moderating role. The details are as follows. This study used nine different items to measure the CGQ i.e. gender diversity, Audit committee, compensation, attendance, tenure, board size, family ownership, CEOs ownership and Ownership concentrations etc. The study used composite index method for nine items of CGQ. The definitions concepts and measurements details are as follows.

Corporate Governance Quality (CGQ)

The diversity is combination of across gender, age and experience etc. The diversity in this study used as measurement of CGQ by considering female participations in firms' ownerships. It is measured as female director on board divided by total number of directors on board. The measurement is fully supported by number of researchers i.e. (Abulazm, Sakr, & Hamza, 2025). The audit committee consists of number of members included in panel. This study also used and measured the total number of audit committees serving in audit committee. There are different models used in audit committee selections. Most in advance markets the auditors consist of six members. In developing areas, the auditor includes four in committee. The measurement is strongly supported by existing literature i.e. (Abulazm, Sakr, & Hamza, 2025) documented the number of auditors in audit committee. Compensation means the basic and extra allowances paid for employees' benefits. This can lead to controlling the agency issue in case of strong corporate governance policies. The strong CGQ paid in time benefits to employees. However, in case of lack of compensation the agency issues may arise. To evaluate the CGQ the attendance of board of directors and members during different meetings conducted over the years is vital. The attendance indicates the presence of members during conducted meetings. Larger the attendance frequency caused better consequences on firms' existence.

BS is measured by the total number of directors on the board supported by (Abulazm, Sakr, & Hamza, 2025). The large number of directors can input greater effort to instruct task timely and meetings schedules accordingly. However, the shortage of directors can cause adversely, in context of developing markets the number of directors of probable found a few in panel. Hence, the consequences of developing markets are often in contrast to advanced markets. It indicates the involvement of family members in ownership structure. The number of family members holding boards and membership for decision making process. This can cause adverse consequences, i.e. due to lack of experience, education and awareness. The current study measured family ownership by using percentage of shareholding by family members or related individuals. For instance, it depends upon the market situations, especially in developing areas where the decision-making authorities remain constant and may cause contrast results. Ownership concentration is a key element in CGQ. It consists upon the dispersion of shared holding to small shareholders. It is used to control and better decision making through decentralization approach. Involvement of small shareholders in decision making and encouraging firm's value.

H8: *Corporate Governance Quality significantly moderates the impact of credit risk on firm value.*

H9: *Corporate Governance Quality significantly moderates the impact of systematic risk on firm value.*

Political Stability (Ps)

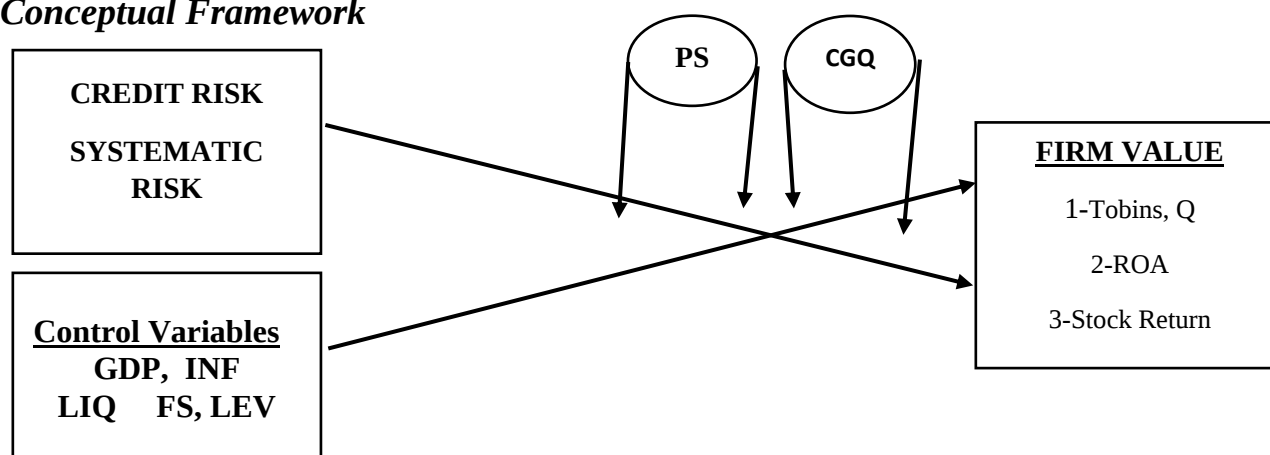
Political instability is measured by number of authors. Recently, Alemu and Worku (2025) also used the political instability and corporate governance mechanism for firm's performance. The hypotheses about moderating role of political stability are as follows.

H10: Political stability significantly moderates the impact of credit risk on firm value.

H11: Political stability significantly moderates the impact systematic risk on firm value.

This study used three measurements for dependent variables, i.e. firms value, hence all mentioned hypothesis is repeated for Tobins,Q, ROA and stock return.

Conceptual Framework



Research Methodology

Research Approach

The study used deductive research approach. In deductive approach researchers tend to focus on existing data with positivism philosophy and apply the under-pinning assumptions of existing theories. Hence, study focused on deductive reasoning and positivism philosophy. However, the details of data collection, procedures, sources, analytical tools, and methods are given below.

Research Design

The design of this research is quantitative in nature. Quantitative research design is used due to numeric facts and figures, secondary data in nature and measurements of factors used in numbers or ratios scale. Number of researchers used quantitative research design and applied deductive approach.

Secondary Data

As per research methodology, this research is secondary in nature. This paper considers listed companies of Asian developing markets for non-financial sectors. This study sample size 400 listed firms from these sectors and date includes from 2013-2022.

Population and Sample

The population of this study consist of non-financial listed firms Asian developing markets. There are various sectors by which the non-financial firms are listed and include details i.e. textile sector, sugar, energy, chemicals and food etc. In Asian developing markets i.e. Pakistan, Bangladesh, Nepal, Sri Lanka, Bahrain, Iraq, Turkey and Jordan etc. The study used only listed firms for non-financial sectors in mentioned stock markets. The sample size of this study consists of listed firms from these major sectors. The sample size consists of 400 listed firms from eight major developing markets. The whole population of Asian developing markets as per stock exchange data base as follows. The study sets selection criteria to finalize the sample size. The firms established after 2016 or in 2019 excluded from this study. Number of firms was established in 2018 and 2021, so the time duration of this study consists of 2013 to 2022. Study included only those firms have complete duration. Secondly, the study excluded firms have incomplete data set. Study also excluded

delisted firms or firms still not listed at any stock exchange. The study also excluded some firms having missing data for items or proxies, i.e. production cost and inventory were missing.

Sampling Technique

Study used simple random sampling. In simple random sampling number of firms selected on the base of selection criteria. Other firms are excluded because the aim of study is fulfilled on the basis of selected firms.

Data Analysis

The data is analyzed by using EViews software. Study used major analytical tools i.e. descriptive summary, correlation matrix, regression and moderation analysis etc.

Tools of Analysis

Descriptive statistics is a branch of statistics that deals with summarizing and describing the main features of a set of data. It involves collecting, analyzing, and interpreting data to provide a clear and concise description of the data. Descriptive statistics provides a way to summarize and describe the key characteristics of a data set, making it easier to understand and interpret the data. OLS stands for Ordinary Least Squares in this equation is estimated by finding the coefficients that minimize the sum of the squared errors. These coefficients represent the slope and intercept of the line that best fits the data. Once the coefficients are estimated, they can be used to predict the value of the dependent variable for any given value of the independent variable.

Econometric Model

Regression

FV its Tobin's $Q = \alpha_0 + \alpha_1 SR_{it} + \alpha_2 CR_{it} + \alpha_3 LIQ_{it} + \alpha_4 LEV_{it} + \alpha_5 FS_{it} + \alpha_6 LEV_{it} + \alpha_7 GDP_{it} + \alpha_8 INF_{it} + \mu$

FV its ROA = $\alpha_0 + \alpha_1 SR_{it} + \alpha_2 CR_{it} + \alpha_3 LIQ_{it} + \alpha_4 LEV_{it} + \alpha_5 FS_{it} + \alpha_6 LEV_{it} + \alpha_7 GDP_{it} + \alpha_8 INF_{it} + \mu$

FV its SR = $\alpha_0 + \alpha_1 SR_{it} + \alpha_2 CR_{it} + \alpha_3 LIQ_{it} + \alpha_4 LEV_{it} + \alpha_5 FS_{it} + \alpha_6 LEV_{it} + \alpha_7 GDP_{it} + \alpha_8 INF_{it} + \mu$

For Fixed effect econometric equation as follows.

FV its Tobin's $Q = \alpha_0 + \alpha_1 SR_{it} + \alpha_2 CR_{it} + \alpha_3 LIQ_{it} + \alpha_4 LEV_{it} + \alpha_5 FS_{it} + \alpha_6 LEV_{it} + \alpha_7 GDP_{it} + \alpha_8 INF_{it} + \mu + \varepsilon_{it}$

FV its ROA = $\alpha_0 + \alpha_1 SR_{it} + \alpha_2 CR_{it} + \alpha_3 LIQ_{it} + \alpha_4 LEV_{it} + \alpha_5 FS_{it} + \alpha_6 LEV_{it} + \alpha_7 GDP_{it} + \alpha_8 INF_{it} + \mu + \varepsilon_{it}$

FV its SR = $\alpha_0 + \alpha_1 SR_{it} + \alpha_2 CR_{it} + \alpha_3 LIQ_{it} + \alpha_4 LEV_{it} + \alpha_5 FS_{it} + \alpha_6 LEV_{it} + \alpha_7 GDP_{it} + \alpha_8 INF_{it} + \mu + \varepsilon_{it}$

For Moderation equations are as follows.

$$FV_{ROAit} = \beta_0 + \beta_1 CR_{it} + \beta_2 PS_{it} + \beta_3 CR_{it} * PS + \beta_3 SR_{it} + \beta_3 SR * PS_{it} + \varepsilon_{it}$$

$$FV_{TQit} = \beta_0 + \beta_1 CR_{it} + \beta_2 PS_{it} + \beta_3 CR_{it} * PS + \beta_3 SR_{it} + \beta_3 SR * PS_{it} + \varepsilon_{it}$$

$$FV_{SRit} = \beta_0 + \beta_1 CR_{it} + \beta_2 PS_{it} + \beta_3 CR_{it} * PS + \beta_3 SR_{it} + \beta_3 SR * PS_{it} + \varepsilon_{it}$$

$$FV_{ROAit} = \beta_0 + \beta_1 CR_{it} + \beta_2 CGQ_{it} + \beta_3 CR_{it} * CGQ + \beta_3 SR_{it} + \beta_3 SR * CGQ_{it} + \varepsilon_{it}$$

$$FV_{TQit} = \beta_0 + \beta_1 CR_{it} + \beta_2 CGQ_{it} + \beta_3 CR_{it} * CGQ + \beta_3 SR_{it} + \beta_3 SR * CGQ_{it} + \varepsilon_{it}$$

$$FV_{SRit} = \beta_0 + \beta_1 CR_{it} + \beta_2 CGQ_{it} + \beta_3 CR_{it} * CGQ + \beta_3 SR_{it} + \beta_3 SR * CGQ_{it} + \varepsilon_{it}$$

Explanation:

- FV Tobin Q Firms Value measured by TOBINs Q Model
- FV ROA Firms Values measured by ROA
- FV SR Firms Values measured by Stock return
- CR Credit Risk
- SR Systematic Risk
- CGQ Corporate Governance Quality
- It Time period and Cross sectional as panel
- μ Fixed Effects model
- ε_{its} Error term

Variables Measurement Table

Variables	Measurements
Firm Value	Tobin's Q model, Market value of Equity + Book Value of debt / Total Assets; ROA return on assets and Stock return by Prices
Systematic risk	Systematic risk is measured by using variance and then Change in variance. $\text{Cov}(X, Y) = \sum (X_i - \bar{X})(Y_i - \bar{Y}) / n - 1$
Credit Risk	Credit Risk = Credit Risk by Altman Z-Score $\text{Z-Score} = 1.2 X_1 + 1.4 X_2 + 3.3 X_3 + X_4 + 0.99 X_5$ X1; working capital, X2; Retain earnings, X3; EBIT, X4; market to book value, and X5; sales to assets.
Political Stability	Political stability is measured by using political rights and violence index of market. The data source is used as WBI (Hussain, Zulfiqar, & Hanif, 2025).
CGQ	The CGQ is measured by using composite index of nine different instruments with weights. The details of items used in CGQ measurements are Gender Diversity, Audit Committee, Compensation, Attendance, Tenure Affiliation etc. (Hussain, Zulfiqar, & Hanif, 2025).
Firm Size	Natural log of Total Assets
Leverage	Debt to Equity Ratio or (Total Debt / total Equity)
GDP	GDP Per Capita
INF	Change in CPI

Z-score model is one of the two most well-known multidimensional models of risk (Trujillo Ponce et al., 2014). There has been wide use of credit risk assessment in the Pakistan Stock Exchange. Firm's value can be measured by various techniques. However, in this study the firm's value measured by using the Tobin's Q model developed by James Tobin's (1969). Recently authors extended the Tobin's q model to measure the firm's value by market to book value i.e. Fama and French (1995).

The corporate governance quality (CGQ) is measured by index of nine instruments. The CGQ is measured by using index of nine different instruments. The details of items used in CGQ measurements are Gender Diversity, Audit Committee, Compensation, Attendance, Tenure Affiliation etc. Political stability is measured by using political rights and violence index of market. The data source is used as WBI. The results are as follows.

Results And Analysis

Unit Root

Table 01. Unit root test Results

Variables	Probability	Level/ Difference
<i>FV</i>	0.0000	Level
<i>ROA</i>	0.0001	1 st difference
<i>S_RETURN</i>	0.0000	Level
<i>FS</i>	0.000	Level
<i>LEV</i>	0.0000	Level
<i>LIQ</i>	0.0000	Level
<i>GDP</i>	0.0012	1 st difference
<i>INF</i>	0.0015	1 st difference
<i>PS</i>	0.0000	Level

Unit root test I sued to check the stationery of data. The probability of unit root should be less than 5%. The p _value at simple level or 1st difference reported less than 5% for all factors. This is also fundamentals assumption of regression to evaluate each factors stationery. Critical analysis as follows.

According to above results the probability of dependent variable firm value (FV) is < 5%. The probability of FV exists at simple level. Similarly, probability of returns on Assets (ROA) is also < 5% or 0.000, but this

value exists at 1st difference. The probability of stock return is also less than 5% and significant at simple level. Furthermore, the probability of other independent variables of firm value like firm size (FS) is < 5% or 0.000. The probability of FS exists at simple level. However, probability of leverage (LEV) is also < 5% or 0.000. The probability liquidity (LIQ) is also less than 5% and significant at simple level. Finally, the probability of GDP and Inflation is also < 5%, the probability of these both factors exist at 1st difference. However, probability of political stability (PS) is also < 5% or 0.000. It is summarized in the light of above discussion that probability for the determinants of firm value exists less than 5% at simple level and 1st difference. All factors are stationery and there is no chance of autocorrelations or regression issues. Furthermore, studies also used descriptive summary to check the behavior of data. The behavior indicates by using mean, median, minimum and maximum values, standard deviation etc. The details of the determinants of firm value are as follows.

Descriptive Summary

Table 02: Descriptive summary Results

	TOBINS Q	ROA	S_RETUR N	FS	LEV	LIQ	CR	CO V	GD P	INF	PS	CG Q
Mean	4.015	13.16	13.7	-2.1	-0.41	2.72	58.1	1.63	3.18	0.89	-1.7	8.83
Median	1.348	1.58	13.13	3.66	0.66	1.09	9.34	1	4.39	0.09	-1.9	1.11
Maximum	14.3	61.8	24.63	31.9	2.22	14.5	60.5	9.2	13.8	7.9	7.5	41.8
Minimum	-4.134	-96.3	13.7	-2.25	-94.1	-47.4	-8.18	-1.77	-12	-30	-2.8	-3.8
Std. Dev.	5.185	18.9	6.344	42.9	18.7	4.1	142.1	1.82	3.27	3.73	0.74	13.3
Skewness	-0.059	4.01	0.3359	4.49	1.2	3.15	2.68	1.56	-1	2.48	-0.5	23.7
Kurtosis	2.111	2.28	3.932	2.07	2.56	2.95	3.63	2.54	2.96	1.3	3.02	1.66
Observations	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000

Descriptive summary is also diagnostic testing mostly used in study to check the behavior of data. Different components indicate the behavior of data. The mean, minimum maximum values, the range of data and standard deviation etc. are reported for each factor in above table. Critical analysis and interpretation are as follows.

According to above table mean value of firm value Tobins Q is 4.015, ROA 13.16 and stock return 137.07. It indicates the central tendency in these factors. Similarly, the mean value of firm size is -2.16567 and leverage is -0.410. Mean of liquidity 2.7214, inflation is 0.8988 and political stability is -1.72334. Furthermore, minimum and maximum values for the firm value are -4.13454 & 14.304. The median is 1.3480. Medians exist between minimum and maximum values. It indicates the range of data. The existence of median in range of data shows the normal behavior of factors. Similarly, the minimum and maximum values for ROA are -96.30 to 61.85717, stock return 13.70000 & 24.63150. The median 1.581037 exists within range of minimum and maximum values. Same as the median stock return is 131.3000 also exists in the range of minimum and maximum values. However, minimum values for firm size, leverage and liquidity are -2.256, -94.1. The maximum values are 3.937854, 2.224704 and 14.59730. The median values for these factors are 3.661549, 0.660264 and 1.094945. The median values exist between the ranges of minimum and maximum it indicates the normal behavior of data.

Minimum and maximum values for the GDP and Inflation are -12.000, -30.20. The maximum values are 13.80000 and 7.900000. The median values are 4.396457 and 0.096800. The median values exist between the ranges of minimum and maximum it indicates the normal behavior of data. Finally, minimum and maximum values for political stability are -2.79497 and -0.45294. Median is -1.90026 indicates normal behavior and within range of minimum maximum values. The standard deviation for all factors reported in above table indicates the distance from mean, the firm value (FV) 5.185175, return on assets (ROA) -96.3082, stock return 63.440009, firm size (FS) 42.99557, and leverage (LEV) 18.79730, liquidity (LIQ) 4.108413 GDP 3.267509

Inflation (INF) 3.739255 and political stability (PS) is 0.746956. Furthermore, study also used the correlation matrix test to evaluate the relationship between factors. The details are as follows. Political stability means -1.7 CGQ 8.83, the standard deviation, minimum maximum values i.e. -2.8, -3.8 & 7.5, 41.8. Similarly, mean exit between the range and standard deviation little deviate from mean. Finally, kurtosis and skewedness values for all above variables are nearly 2 and 3 less than the threshold. It shows the normality of data. The details of correlation matrix are as follows.

Correlation Matrix

Table 03; Correlation Matrix Results

	TOBINSQ	ROA	STOCK_R	FS	CR	SR	LEV	GDP	INF	PS	CGQ
TOBINSQ	1										
ROA	0.296	1									
STOCK_R	-0.08	0.043	1								
FS	0.019	-0.005	0.020	1							
CR	0.558	0.499	0.148	-0.01	1						
SR	0.391	0.672	0.014	0.005	0.477	1					
LEV	0.113	0.056	0.380	0.611	0.271	0.423	1				
GDP	0.246	0.133	0.017	-0.02	0.246	0.101	0.224	1			
INF	0.557	0.233	-0.34	0.039	0.218	0.3801	0.188	-0.07	1		
PS	-0.038	-0.025	-0.024	-0.01	-0.025	-0.03	0.148	-0.05	-0.03	1	1
CGQ	0.149	0.178	0.041	-0.00	0.328	0.114	0.088	0.042	0.057	0.055	-0.01

Correlation matrix is used to value the relationship between variables. The weaker of stronger relationships exist in factors. In case of exceed the limit of .70 issue of multi-collinearity exist. This study reported the correlation matrix table to examine the relationship between factors and indicate the issue of multi-collinearity if exist.

According to above table Tobin's, Q and credit risk (CR) are .55 correlated with each other's. The relationship is positive and strong between these factors. However, firm value and systematic risk are .68 correlated with each other's. The credit risk and systematic risk are .47 correlated, systematic risk and firm size are GDP and INF are -0.05, leverage with credit and systematic risk is 5% and 38% correlated. Finally, stock return is 69%, with firm value, 57% with ROA, 62 with systematic risk, 24 with firm size, and 62with GDP, 69correlated with inflation, 14 with leverage, 62with liquidity and 64 with return on assets.

It is stated that correlation matrix is used to examine the relationship and issue of multi-collinearity between variables. The variables are strongly positively correlated with each other's. There is no single value that is less great than 70. All factors are correlated with each other's but less than 70%. It is concluded that there is no issue of multi-collinearity existing among the variables. Hence, it is reported that there is no issue of multi-collinearity exist, so another assumption or regression is fulfilled upon the data used in this study. Regression is used to check the cause and effects relationship between variables. Before this regression its assumptions are mandatory to be fully filled. The results for regression analysis are given below.

Regression

Table 04; Dependent Variable FV

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.09409	0.102285	-30.2497	0.0000
CR	-0.019066	0.000816	-23.37229	0.0000
FS	-0.044585	0.001667	-26.75201	0.0000
GDP	0.512343	0.018382	27.87208	0.0000
INF	-0.558972	0.027436	-20.37393	0.0000
LEV	0.038402	0.003712	10.34412	0.0000
LIQ	0.969424	0.017385	55.76315	0.0000
SR	2.378645	0.095437	24.92362	0.0000

R-square 0.872773, indicate the power of explanatory factors, adjusted R-square 0.872581 shows the change in statistics values, Prob (f-statistics) is highly significant with 0.0000, and Durban Watson value is 1.952133 near about 2, indicates that no issue of auto correlation in data.

According to table the sign of coefficient for credit risk (CR) is negative with -0.019066, firm size (FS) is negative with -0.044585 and probability are highly significant with 0.0000. It is stated that due to one unit change in credit risk the firm's value gradually reduced. The negative sign indicates the adverse relationship between these two factors. Beta shows change in factors and its impact on firm value in units. For instance, the sign of coefficient for GDP is positive with 0.512343 and its probability is highly significant with 0.0000. It is stated that due to one unit change in GDP the firm's value gradually increased.

However, the sign of coefficient for inflation (INF) is negative with -0.558972 and its probability is highly significant with 0.0000. It is stated that due to one unit change in inflation the firm's value gradually dropped. Beta shows change in factors and its impact on firm value in units. Sign of coefficient for leverage (LEV) is positive with 0.038402 and its probability is highly significant with 0.0000. It is stated that due to one unit change in leverage the firm's value gradually increased. Finally, the sign of coefficient for liquidity (LIQ) is positive with 0.969424, systematic risk (SR) is positive with 2.378645 and its probability is highly significant with 0.0000. It is stated that due to one unit change in liquidity the firm's value gradually increased. It is stated that due to one unit change in systematic risk the firm's value gradually increased.

Table 05; Dependent Variable: ROA

<i>Variable</i>	<i>Coefficient</i>	<i>Std. Error</i>	<i>t-Statistic</i>	<i>Prob.</i>
C	-9.078519	0.303891	-29.87429	0.0000
CR	-0.018692	0.002424	-7.712550	0.0000
FS	-0.125089	0.004952	-25.26250	0.0000
GDP	0.602398	0.054613	11.03028	0.0000
INF	-1.415157	0.081512	-17.36137	0.0000
LEV	0.163203	0.011030	14.79669	0.0000
LIQ	3.490369	0.051650	67.57703	0.0000
SR	7.668524	0.283546	27.04504	0.0000

R-square 0.925848, indicate the power of explanatory factors, adjusted R-square 0.915721 shows the change in statistics values, Prob (f-statistics) is highly significant with 0.0000, and Durban Watson value is 1.982133 near about 2, indicates that no issue of auto correlation in data.

According to table the sign of coefficient for credit risk (CR) is negative with -0.018692, firm size (FS) is negative with -0.125089, inflation (INF) is negative with -1.415157 and its probability is highly significant with 0.0000. It is stated that due to one unit change in credit risk the firm's value gradually reduced. The negative sign indicates the adverse relationship between these two factors. Beta shows change in factors and its impact on firm value in units. It is stated that due to one unit change in firm size the firm's value gradually reduced. The negative sign indicates the adverse relationship between these two factors. For instance, the sign of coefficient for GDP is positive with 0.602398 and its probability is highly significant with 0.0000. It is stated that due to one unit change in GDP the firm's value gradually increased.

Sign of coefficient for leverage (LEV) is positive with 0.163203, liquidity (LIQ) is positive with 3.490369 and its probability is highly significant with 0.0000. It is stated that due to one unit change in leverage the firm's value gradually increased. It is stated that due to one unit change in liquidity the firm's value gradually increased. Finally, the sign of coefficient for systematic risk (SR) is positive with 7.668524 and its probability is highly significant with 0.0000. It is stated that due to one unit change in systematic risk the firm's value gradually increased.

Table 06: Dependent Variable: S_RETURN

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	41.30763	0.845284	48.86836	0.0000
CR	-0.131202	0.006741	-19.46235	0.0000
FS	-0.023206	0.013773	-1.684930	0.0921
GDP	14.07159	0.151909	92.63196	0.0000
INF	-10.24130	0.226728	-45.16992	0.0000
LEV	-0.324026	0.030679	-10.56165	0.0000
LIQ	6.049146	0.143667	42.10530	0.0000
SR	29.30008	0.788695	37.15007	0.0000

R-square 0.941956, indicate the power of explanatory factors, adjusted R-square 0.941868 shows the change in statistics values, Prob (f-statistics) is highly significant with 0.0000, and Durban Watson value is 1.97212 near about 2, indicates that no issue of auto correlation in data.

According to table the sign of coefficient for credit risk (CR) is negative with -0.131202, firm size (FS) is negative with -0.023206, inflation (INF) is negative with -0.324026, and its probability is highly significant with 0.0000. It is stated that due to one unit change in credit risk the firm's value gradually reduced. The negative sign indicates the adverse relationship between these two factors. Beta shows change in factors and its impact on firm value in units. The negative sign indicates the adverse relationship between these two factors. For instance, the sign of coefficient for GDP is positive with 14.07159 and its probability is highly significant with 0.0000. It is stated that due to one unit change in GDP the firm's value gradually increased. The negative sign indicates the adverse relationship between these two factors. Beta shows change in factors and its impact on firm value in units. Sign of coefficient for leverage (LEV) is positive with -0.324026 and its probability is highly significant with 0.0000. It is stated that due to one unit change in leverage the firm's value gradually increased. The sign of coefficient for liquidity (LIQ) is positive with 6.049146, systematic risk (SR) is with 29.30008 and its probability is highly significant with 0.0000. It is stated that due to one unit change in liquidity the firm's value gradually increased. It is stated that due to one unit change in systematic risk the firm's value gradually increased.

Hausman Test

Table 07 Redundant Fixed Effects Tests

Pool: POOL

Test cross-section fixed effects

Effects Test	Statistic	d.f.	Prob.
Cross-section F	0.000556	(51,193172)	0.00045
Cross-section Chi-square	0.000008	51	0.0000

The probability of Hausman test is highly significant indicates the fixed effects model rather than random model. In case of significant probability, the fixed model is most appropriate for this study.

Correlated Random Effects - Hausman Test

Pool: POOL

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	0.000052	8	0.00042

These above tables are reported in two steps cross sections fixed effects and random based Hausman test to check that fixed vs common model is appropriate. Same in step two fixed vs random model evaluated. The above results stated that in both cases fixed model rae appropriate because probability is less than 5%.

Fixed Effects Model

Table 08: Fixed affects model FV

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-3.094090	0.102285	-30.24970	0.0000
CR	-0.019066	0.000816	-23.37229	0.0000
SR	2.378645	0.095437	24.92362	0.0000
FS	-0.044585	0.001667	-26.75201	0.0000
LEV	0.038402	0.003712	10.34412	0.0000
LIQ	0.969424	0.017385	55.76315	0.0000
GDP	0.512343	0.018382	27.87208	0.0000
INF	-0.558972	0.027436	-20.37393	0.0000

R square is 0.872773, adjusted r is 0.872581 probability of f-statistics is significant, value of Durban Watson is nearly 2.

According to table the sign of coefficient for credit risk (CR) is negative with -0.019066, firm size (FS) is negative with -0.044585, inflation (INF) is negative with -0.558972 and its probability is highly significant with 0.0000. It is stated that due to one unit change in credit risk the firm's value gradually reduced. The negative sign indicates the adverse relationship between these two factors. Beta shows change in factors and its impact on firm value in units.

Furthermore, the sign of coefficient for systematic risk (SR) is positive with 2.378645, GDP is with 0.512343, and its probability is highly significant with 0.0000. It is stated that due to one unit change in systematic risk the firm's value gradually increased. Sign of coefficient for leverage (LEV) is positive with 0.038402, liquidity (LIQ) is positive with 0.969424 and its probability is highly significant with 0.0000. It is stated that due to one unit change in leverage the firm's value gradually increased.

Table 09: Dependent Variable: ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-9.078519	0.303891	-29.87429	0.0000
CR	-0.018692	0.002424	-7.712550	0.0000
SR	7.668524	0.283546	27.04504	0.0000
FS	-0.125089	0.004952	-25.26250	0.0000
LEV	0.163203	0.011030	14.79669	0.0000
LIQ	3.490369	0.051650	67.57703	0.0000
GDP	0.602398	0.054613	11.03028	0.0000
INF	-1.415157	0.081512	-17.36137	0.0000

R square is 0.915848, adjusted r is 0.915721 probability of f-statistics is significant, value of Durban Watson is nearly 2.

According to table the sign of coefficient for credit risk (CR) is negative with -0.018692, firm size (FS) is negative with -0.125089, inflation (INF) is negative with -1.415157 and its probability is highly significant with 0.0000. It is stated that due to one unit change in credit risk the firm's value gradually reduced. Finally, the sign of coefficient for systematic risk (SR) is positive with 7.668524 and its probability is highly significant with 0.0000. It is stated that due to one unit change in systematic risk the firm's value gradually increased. For instance, the sign of coefficient for GDP is positive with 0.602398 and its probability is highly significant with 0.0000. It is stated that due to one unit change in GDP the firm's value gradually increased. Sign of coefficient for leverage (LEV) is positive, liquidity (LIQ) is positive with 3.490369 with 0.163203 and its probability is highly significant with 0.0000. It is stated that due to one unit change in leverage the firm's value gradually increased.

Table 10: Dependent Variable: S_RETURN

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	41.30763	0.845284	48.86836	0.0000
CR	-0.131202	0.006741	-19.46235	0.0000
SR	29.30008	0.788695	37.15007	0.0000
FS	-0.023206	0.013773	-1.684930	0.0921
LEV	-0.324026	0.030679	-10.56165	0.0000
LIQ	6.049146	0.143667	42.10530	0.0000
GDP	14.07159	0.151909	92.63196	0.0000
INF	-10.24130	0.226728	-45.16992	0.0000

R square is 0.941956, adjusted r is 0.941868 probability of f-statistics is significant, value of Durban Watson is nearly 2.

According to table the sign of coefficient for credit risk (CR) is negative with 0.131202, systematic risk (SR) is positive with 29.30008 and its probability is highly significant with 0.0000. It is stated that due to one unit change in credit risk the firm's value gradually reduced. The negative sign indicates the adverse relationship between these two factors. Beta shows change in factors and its impact on firm value in units. However, the sign of coefficient for inflation (INF) is negative with -0.324026 its probability is highly significant with 0.0000. It is stated that due to one unit change in inflation the firm's value gradually dropped. For instance, the sign of coefficient for firm size is positive with -0.023206, GDP is positive with 14.07159 and its probability is highly significant with 0.0000. It is stated that due to one unit change in GDP the firm's value gradually increased. The negative sign indicates the adverse relationship between these two factors. Beta shows change in factors and its impact on firm value in units. Sign of coefficient for leverage (LEV) with -0.324026 and its probability is highly significant with 0.0000. The sign of coefficient for liquidity (LIQ) is positive with 6.049146 and its probability is highly significant with 0.0000. It is stated that due to one unit change in liquidity the firm's value gradually increased.

Country Wise Analysis

Table 11 Overall Results

Variables	1-PAKISTAN		2-BANGLADESH		3-BAHRAIN		4-NEPAL	
	Coef.	P>t	Coef.	P>t	Coef.	P>t	Coef.	P>t
SR	8.12	0.00	0.05	0.062	3.21	0.60	0.012	0.00
CR	-4.74	0.01	-0.01	0.00	0.81	0.00	-9.62	0.00
PS*SR	3.24	0.00	0.00	0.067	1.28	0.10	2.297	0.00
PS*CR	-1.88	0.01	0.001	0.061	-0.2	0.51	19.29	0.00
CGQ*SR	293	0.046	18.3	0.00	0.00	0.70	2.28	0.00
CGQ*CR	24.6	0.047	0.06	0.001	0.00	0.00	0.75	0.00
_cons	-0.32	0.00	1.06	0.00	0.00	0.00	-0.09	0.00
	5SRILANKA		6-JORDAN		7-IRAQ		8-TURKEY	
	Coef.	P>t	Coef.	P>t	Coef.	P>t	Coef.	P>t
SR	23.74	0.529	1.86	0.04	1.36	0.02	1.12	0.00
CR	-2.54	0.00	-0.49	0.06	-14.3	0.04	0.03	0.00
PS*SR	3.2	0.73	0.755	0.28	21.9	0.23	0.01	0.01
PS*CR	-1.8	0.14	-0.17	0.2	2.11	0.05	10.6	0.03
CGQ*SR	7.3	0.65	0.05	0.79	0.03	0.08	2.4	0.03
CGQ*CR	0.00	0.59	0.00	0.96	0.12	0.00	1.6	0.03
_cons	-7.5	0.13	6.46	0.00	-4.24	0.62	-16.6	0.00

The study reported overall country wise analysis for the eight major markets in Asian countries. The major non-financial listed firms are included for analysis. As per above table in context of Pakistan and Bangladesh, credit risk (CR) and systematic risk indicated by (SR) or change in variance have negative sign of coefficient and significant probability at 99% level of significance. The above tables shows that sign coefficient for

systematic risk (SR) is positive significant in context of Pakistan, Bangladesh, Bahrain, Nepal, Jordan, Iraq and Turkey etc. Contrary, only in Sri Lanka reported insignificant. It is summarized that in overall developing markets the systematic risk has positive significant impact on firm's value except Sri Lanka. Recently, a few studies supported these arguments, i.e. systematic risk significantly impact on firm's value (Hanif, Naveed, & Rehman, 2019). On the other side, insignificant relationship reported in Sri Lanka due to some market-based uncertainties and unstable environment. Contrary, credit risk (CR) reported negative significant impact on firm value in context of Pakistan, Bangladesh, Nepal, Jordan, Sri Lanka and Iraq but positive significant in Turkey. Turkey demonstrates strong corporate governance quality (CGQ) and political stability. It is noted that, due to the effectiveness of these systems, credit risk has led to an increased impact on firm value through timely recovery. Finally, moderating role of political stability is negative significant in relationship of credit risk and firms value for Pakistan, Bahrain, Sri Lanka and Jordan, contrary, positive significant moderated in Turkey, Iraq, Nepal and Bahrain etc. However, moderating role of CGQ is reported positive significant in relationship of credit and systematic risk on firm value in Pakistan, Bangladesh, Bahrain, Nepal, Iraq and Turkey but insignificant in Sri Lanka and Jordan. It is stated that the CGQ mechanism of Sri Lanka and Jordan is different as compared to other markets, but these are same as developing markets with similar many other characteristics. Finally, it is argued that other developing markets gradually improved in context of political stability and CGQ mechanism, but a few markets still need to improve.

Moderation Analysis

Table 12 Tobin's Q

VARIABLES	PAKISTAN		BANGLADESH		BAHARAIN		SRILANKA	
TOBINSQ	Coef.	P>t	Coef.	P>t	Coef.	P>t	Coef.	P>t
PS*SR	0.1582	0.0405	0.723	0.00	2.80	0.28	24.84	0.00
PS*CR	-0.476	0.0506	-0.44	0.00	-0.9	0.028	-7.91	0.00
CGQ*SR	0.1582	0.0405	43.95	0.46	0.00	0.00	5.012	0.78
CGQ*CR	-0.1648	0.0101	-2.483	0.00	-0.00	0.00	9.66	0.72
VARIABLES	JORDAN		NEPAL		IRAQ		TURKEY	
TOBINSQ	Coef.	P>t	Coef.	P>t	Coef.	P>t	Coef.	P>t
PS*SR	1.510	0.00	-3.84	0.02	14.58	0.019	1.23	0.00
PS*CR	0.00	0.00	0.535	0.02	0.946	0.22	-0.03	0.00
CGQ*SR	0.010	0.971	0.015	0.8	0.736	0.00	0.004	0.00
CGQ*CR	0.0013	0.981	-0.00	0.38	-0.048	0.067	2.26	0.008

Moderating role of political stability in relationship of systematic risk on firm value positive significant in Pakistan, Bangladesh, Bahrain, Sri Lanka, Jordan, Iraq and Turkey except Nepal reported negative significant (Hanif, Naveed, & Rehman, 2019). Contrary, political stability negatively moderated the relationship of credit risk is negative significant. PS-CR probability is less than 5%, and the sign of coefficient is negative. It is stated that political stability negatively impacts the relationship of credit risk on firm's value and positive moderate systematic risk and firm's value. PS-SR sign of coefficient is positive, and probability is less than 5%. Credit risk insignificant reported in Iraq with the moderation effects of political stability.

Furthermore, in context of Pakistan and Bahrain, Iraq and Turkey corporate governance quality (CGQ) probability for CGQ-SR positive significant. It is stated that CGQ positive significantly moderates the impact of systematic risk on firm value in these markets. Contrary, Bangladesh, Sriana, Jordan and Nepal reported insignificant moderation by CGQ due to lower quality and deficiencies. However, it is stated that other developing markets improved their CGQ mechanism similar, there is need to improve in these markets.

Finally, CGQ negatively moderated the relationship of credit risk and firms value in context of Pakistan, Bangladesh, Bahrain, Nepal, and Iraq, but positive significant moderated in Turkey, contrary insignificant only in Jordan and Sriana. These differ results are reported due to some different characteristics and mechanisms of CGQ at internal level of markets. Finally, it is argued that CGQ negatively significant moderated the relationship of credit risk and firms value in major Asian developing markets.

Table 13 ROA

VARIABLES	PAKISTAN		BANGLADESH		BAHARAIN		SRILANKA	
ROA	Coef.	P>t	Coef.	P>t	Coef.	P>t	Coef	P>t
PS*SR	0.01390	0.01239	11.63	0.009	3.61	0.596	6.331	0.00
PS*CR	-0.1331	0.04770	-0.69	0.195	-1.75	0.101	-0.01	0.345
CGQ*SR	0.0645	0.02362	13.075	0.533	0.00	0.00	8.167	0.898
CGQ*CR	-0.9440	0.07833	-0.557	0.975	-0.00	0.00	3.540	0.725
VARIABLES	JORDAN		IRAQ		NEPAL		TURKEY	
ROA	Coef	P>t	Coef	P>t	Coef	P>t	Coef	P>t
PS*SR	0.297	0.011	9.552	0.00	15.69	0.00	1.238	0.00
PS*CR	-0.00	0.00	0.0712	0.837	-1.5543	0.00	-0.035	0.00
CGQ*SR	0.127	0.537	0.3917	0.00	0.1733	0.071	0.000	0.00
CGQ*CR	0.0300	0.447	-0.027	0.00	-0.005	0.637	2.26	0.0008

In above table dependent variable used as firm value measured by ROA, in context of Pakistan and Bahrain, Iraq and Turkey corporate governance quality (CGQ) probability for CGQ-SR positive significant. It is stated that CGQ positive significantly moderates the impact of systematic risk on firm value in these markets. Contrary, Bangladesh, Sriana, Jordan and Nepal reported insignificant moderation by CGQ due to lower quality and deficiencies. However, it is stated that other developing markets improved their CGQ mechanism similar, there is need to improve in these markets. Moderating role of political stability in relationship of systematic risk on firm value positive significant in Pakistan, Bangladesh, Bahrain, Sri Lanka, Jordan, Iraq and Turkey except Nepal reported negative significant (Hanif et al., 2019). Contrary, political stability negatively significantly moderates the relationship of credit risk is negative significant. PS-CR probability is less than 5%, and the sign of coefficient is negative. It is stated that political stability negatively impacts the relationship of credit risk on firm's value and positive moderate systematic risk and firm's value. PS-SR sign of coefficient is positive, and probability is less than 5%. Credit risk insignificant reported in Iraq with the moderation effects of political stability.

Finally, corporate governance quality (CGQ) was found to negatively moderate the relationship between credit risk and firm value in Pakistan, Bangladesh, Bahrain, Nepal, and Iraq, while it positively and significantly moderated this relationship in Turkey. In contrast, the moderation effect was insignificant in Jordan and Sri Lanka. These variations can be attributed to differences in the internal characteristics and mechanisms of CGQ across markets. Overall, the findings suggest that CGQ plays a negatively significant moderating role in the relationship between credit risk and firm value in major Asian developing markets.

Table 14 Stock Return

VARIABLES	1-PAKISTAN		2-BANGLADESH		3-BAHARAIN		4-SRILANKA	
STOCKRETURN	Coef.	P>t	Coef.	P>t	Coef.	P>t	Coef.	P>t
PS*SR	1.380	0.00	59.3	0.01	333.6	0.013	517.7	0.00
PS*CR	-0.049	0.006	-30.5	0.00	29.0	0.164	-1.84	0.24
CGQ*SR	58.32	0.039	213.3	0.98	0.00	0.00	-0.001	0.01
CGQ*CR	-48.87	0.040	186.3	0.06	0.00	0.00	0.002	0.06
VARIABLES	5-JORDAN		6-NEPAL		7-IRAQ		8-TURKEY	
STOCKRETURN	Coef.	P>t	Coef.	P>t	Coef.	P>t	Coef.	P>t
PS*SR	42.9	0.00	288.1	0.00	10.9	0.00	17.6	0.00
PS*CR	-0.00	0.00	-24.73	0.00	-4.72	0.00	-0.67	0.00
CGQ*SR	16.0	0.01	2.512	0.26	1.78	0.00	0.067	0.00
CGQ*CR	3.56	0.00	0.108	0.70	-0.14	0.00	3.95	0.00

0The sign of coefficient for PS-SR moderating role of political stability in impact of systematic risk on firm value positive significant in Pakistan, Sri Lanka, Jordan, Iraq, Nepal and Turkey. It is stated that in all these markets systematic risk is highly significantly moderated by political stability. In contrast, Bahrain reported insignificant moderation for credit risk, however moderation of political stability and Bangladesh positive

significant. Second factor PS-CR credit risk evaluated with the moderating role of political stability founded that negative significant in Pakistan, Bangladesh, Jordan, Nepal, Iraq and Turkey, contrary insignificant in Bahrain and Sri Lanka.

Finally, CGQ significant moderating role reported in, Bangladesh, Sri Lanka, Jordan, and Pakistan, Bahrain, Iraq, Jordan and Turkey etc. Contrary, insignificant only in Nepal due to lower mechanism of CGQ. However, significant moderating role of CGQ in impact of credit risk and systematic risk found in Pakistan, Turkey, Iraq and Bahrain. It is summarized in line with Turkey market both moderators have significant impact of firm value.

Key Findings and Conclusion

Key Findings

Credit risk was found to have a negative and significant impact on firm value in Asian developing markets, indicating that higher credit exposure and default probability reduce firms' financial performance and market worth. Finally, credit risk (CR) reported negative significant impact on firm value in context of Pakistan, Bangladesh, Nepal, Jordan, Sri Lanka and Iraq but positive significant in Turkey. In contrast, systematic risk demonstrated a positive and significant relationship with firm value, suggesting that firms in these markets are often rewarded for bearing market-wide risks, possibly due to higher expected returns or investors' risk return. It is summarized that in overall developing markets the systematic risk has positive significant impact on firm's value except Sri Lanka. In line with underpinning assumptions of portfolio theory, the risk systematic and relationship with the return. However, by using the change in covariance this study preliminary, argued that change in covariance risk and return timely predictable by the investors in certain portfolios. This is a better measurement of risk and indicates true form of risk return relationship.

Moderating role of political stability in relationship of systematic risk on firm value positive significant in Pakistan, Bangladesh, Bahrain, Sri Lanka, Jordan, Iraq and Turkey except Nepal reported negative significant (Hanif, Naveed, & Rehman, 2019). Contrary, political stability negatively moderated the relationship of credit risk is negative significant. Contrary, considering the other factors, i.e. political stability and CGQ mechanism market portfolio can be expected with better return.

Furthermore, in context of Pakistan and Bahrain, Iraq and Turkey corporate governance quality (CGQ) probability for CGQ-SR positive significant. It is stated that CGQ positive significantly moderates the impact of systematic risk on firm value in these markets. Contrary, Bangladesh, Sri Lanka, Jordan and Nepal reported insignificant moderation by CGQ due to lower quality and deficiencies. Finally, CGQ negatively moderated the relationship of credit risk and firms value in context of Pakistan, Bangladesh, Bahrain, Nepal, and Iraq, but positive significant moderated in Turkey, contrary insignificant only in Jordan and Sri Lanka. The credit risk moderating role of political stability of Iraq found insignificant. Finally, this is stated that the political stability index of advanced markets and developing is different in whole world. Finally, it is strongly argued by this study, "political stability leads to economic stability or vice versa." These findings are argued underpinning theory of stakeholder assumption, i.e. firms should not only focus on shareholders, but also consider the other factors, government, political environment, stakeholder and macroeconomics factors. Additionally, the scope of agency theory extended in these assumptions i.e. moderating role of political stability, the conflicts of stakeholders are strongly considerable in the market.

Finally, findings about Corporate Governance Quality as moderating role in impact of credit and systematic risk on firm's value, CGQ positive significantly moderate the impact of systematic risk on firm's value in Bangladesh and Bahrain, controversy CGQ significant moderate the impact of systematic risk on firm's value in Nepal, Iraq and Turkey. However, in context of Bangladesh the CGQ reported no significant moderating role in impact of systematic risk on firm's value. Recently, Alemu and Worku (2025) argued that corporate governance items positive significant support the firm's mechanism. These findings are supported and linked with agency theory in words i.e. principal and agent relationship. Strong corporate governance mechanism can control this relationship in case of conflicts. However, in line with agency assumptions a few markets still need to improve CGQ mechanism and especially controlling the credit risk defaults. Credit risk reported to cause decrease in firms value, this study argued in context of strong CGQ mechanism timely recovery,

evidenced borrowings, strong regulations, can leads to higher cash inflows that enhance the firms value and can protect investors' confidence. There are higher conflicts in developing markets, can be control with strong CGQ development.

Least but not last, CGQ in impact of credit risk positive significant moderating role in Bahrain, Bangladesh, Nepal, Iraq and Turkey and Pakistan. It is summarized that systematic and credit risk mostly reported significant consequences in developing markets. However, political stability results in a moderating role i.e. some are significant and a few are insignificant. Similarly, CGQ in some markets are also reported significant, but a few markets show significant CGQ role i.e. Turkey, Bahrain and Nepal and Pakistan etc.

Conclusion

It is concluded in the light of above discussion that the aim of study is to examine the impact of risk on firm's value, moderating role of political stability and corporate governance quality. The risk includes systematic and credit risk. Other control variables are used i.e. firm size, leverage, liquidity, GDP and inflation etc. Study used three different measurements of dependent factors. The firm value measured by Tobin's Q, return on assets as accounting ration and future return by using stock prices change or return. Study used political stability and CGQ as moderating variable. Political stability significantly moderates the relationship of risk n firm's value like negative in credit risk and positive moderation in systematic risk on firm's value. However, CGQ also significantly moderate in Turkey, Pakistan, Iraq, and Bahrain etc. but insignificant in Nepal, Sri Lanka and Jordan. Data collected for non-financial listed firms across Asian developing markets form WBI and central banks, stock exchanges etc. The population of this study consist of textile, food, sugar and chemical sectors in Asian developing markets. Sample size finalized by using stratified sampling technique. The number of listed firms used in this study is about 450. Data collected form Thomson router, annul financial report and major financial statements for listed firms of Asian developing markets. Study excluded delisted firms, incomplete data for selected periods, firms established or not full filling the time frame of this study. Findings of study reported by using OLS and fixed effects model indicate that credit risk (CR) is negative, significant firm size (FS) is also negative and significant. For instance, the sign of coefficient for GDP is positive and its probability is highly significant. In contrast, the sign of coefficient for inflation (INF) is negative and its probability is highly significant. Sign of coefficient for leverage (LEV) is positive significant, liquidity (LIQ) is positive significant. Finally, the sign of coefficient for systematic risk (SR) is positive and its probability is highly significant. Finally, study has some limitations, implications and future recommendations given below in detail.

The study is implacable for policy makers, researchers and students etc. Study is also implacable for the investors to take cetin decision especially for non-financial sectors. Study is also implacable for the Govt. to get the better advantages of revenue. Study has numerous implications to improve the corporate Governance quality of developing economies. Policy makers at both market levels, by focusing on current political stability or instability can consider strongly implication. Especially, instable political based markets to set strong policies and make possible to secure investors in market. The investors' security is based upon the value of firms operating in which market they are in and need to set strategies from the top level of administration i.e. people in governance making and decision-making processes. Similarly, second stand of this study that mostly remains differ consequences in Asian developing markets is CGQ, because the quality level is very lower and need to set strong regulations at firm's level too. This study is limited for developing Asian markets and non-financial listed firms only. The study is limited to textile, sugar, food, chemical and energy sectors listed firms. Studying is limited for the time-period of 2013-2022. Study is limited to only those firms having complete data sets. Study is limited for non-financial sectors of Asian developing economies.

In future the study can be extended by adding more economies or across developing and developed markets. The study can be extended by adding some other variables. The study can be extended for updated time-period of data. The study can be extended across financial and non-banking financial institutions. In future the study can be extended by making sensitivity and sectoral analysis for the determinants of firm value in different economic recessions.

References

- Awais, M., Aziz, S., Usman, U., & Bhatti, O. K. (2021). Role of Game Theory in Stock's Investment: Having Loss-aversion Bias During the Stressed Condition. *International Journal of Management (IJM)*, 12(3).
- Awais, M., Kiani, A. K., Thas Thaker, M. A. M., Raza, A., & Qaim, S. (2021). Analyzing Nexus between Financial Reforms and Savings in Pakistan: An Econometric Investigation. *International Journal of Innovation, Creativity and Change*, 15(8), 351-365.
- Awais, M., Thaker, M. A. B. M. T., Raza, A., Usman, U., Mohsin, M., & Bhatti, O. K. (2021). The process of risk management: sketching the providers of islamic micro-finance. *International Journal*, 77(11/1).
- Abulazm, H., Sakr, A., & Hamza, H. (2025). The Impact of Corporate Governance Mechanisms on Financial Reporting Quality: Empirical Evidence from Egyptian Listed Firms. *Open Access Library Journal*, 12(1), 1-26.
- Ajmal, M. M., Khan, M., Shad, M. K., AlKatheeri, H., & Jabeen, F. (2022). Socio-economic and technological new normal in supply chain management: lessons from COVID-19 pandemic. *The International Journal of Logistics Management*, 33(4), 1474-1499.
- Akbar, T., & Lanjarsih, L. (2019). Determination of company profitability and value of banks in Indonesia based on risk profile, capital structure, corporate governance and asset structure. *Account and Financial Management Journal*, 4(11), 2041-2047
- Alemu, F. M., & Worku, M. D. (2025). Impacts of corporate governance mechanisms on dynamics of banks financial performance: empirical evidences from private commercial banks of Ethiopia. *Cogent Business & Management*, 12(1), 2477286.
- Azam, A., Khan, I., Fahad, M. S., & Akhtar, M. A. (2023). Prediction of Insolvency by Using Altman Z-score Model: A Study of Selected Indian Private Banks. *Boletin de Literatura Oral-Tradition Oral Literature*, 10(1), 684-695.
- Barnes, M., Boyd, J. H., & Smith, B. D. (1999). Inflation and asset returns. *European Economic Review*, 43(4-6), 737-754.
- Choi, S. J., Kim, K., & Park, S. (2020). Is systemic risk systematic? Evidence from the US stock markets. *International Journal of Finance & Economics*, 25(4), 642-663.
- Fama, E. F., & French, K. R. (1995). Size and book-to-market factors in earnings and returns. *The journal of finance*, 50(1), 131-155.
- Faradila, S., & Effendi, K. A. (2023). Analysis of financial performance and macroeconomic on firm value. *Jurnal Manajemen*, 27(2), 276-296.
- Gitogo, J. K. (2013). J. and Kasimolo, T. (2013). The relationship between derivatives and the financial performance of commercial banks in Kenya. *International Journal Social Sciences and Entrepreneurship*, 1(2), 414-428.
- Hanif, H., Naveed, M., & Rehman, M. U. (2019). Dynamic modeling of systemic risk and firm value: A case of Pakistan. *Cogent Business & Management*, 6(1), 1651440.
- Hong, H. (1977). Inflation and the market value of the firm: Theory and tests. *The Journal of finance*, 32(4), 1031-1048.
- Hussain, M., Zulfiqar, B., & Hanif, M. (2025). Impact of Earning Management on Firms Value: Moderating Role of Political Stability and Corporate Governance Quality. *Journal of Political Stability Archive*, 3(3).
- Iqbal, Z., Hussain, M., Khalique, M., & Tabassum, A. (2020). New Insight in Working Capital Determinants Making Sensitivity Analysis for Non-financial Listed firm's Evidence from Pakistan. *Journal of Managerial Sciences*, 11(04), 1-22.

- Jihadi, M., Vilantika, E., Hashemi, S. M., Arifin, Z., Bachtiar, Y., & Sholichah, F. (2021). The effect of liquidity, leverage, and profitability on firm value: Empirical evidence from Indonesia. *The Journal of Asian Finance, Economics and Business*, 8(3), 423-431.
- Kahan, M., & Catan, E. (2025). Corporate governance and firm value. *NYU Law and Economics Research Paper Forthcoming*.
- Kimura, H., Basso, L. F. C., & Kayo, E. K. (2015). Decision models in credit risk management. *Decision Models in Engineering and Management*, 57-73.
- Markowitz, H. (1952). The utility of wealth. *Journal of political Economy*, 60(2), 151-158.
- Naveed, M., Hussain, M., & Bilal, A. R. (2018). New Insights Into Dividend Policy: A Customised And Dynamic Sectoral Analysis. In *Oxford Conference Series: August 2018* (P. 49).
- Nguyen, K. Q. T., Phan, T. H. N., & Hang, N. M. (2024). The effect of liquidity on firm's performance: Case of Vietnam. *Journal of Eastern European and Central Asian Research (JEECAR)*, 11(1), 176-187.
- Prieto-Carrón, M., Lund-Thomsen, P., Chan, A., Muro, A. N. A., & Bhushan, C. (2006). Critical perspectives on CSR and development: what we know, what we don't know, and what we need to know. *International affairs*, 82(5), 977-987.
- Santosa, P. W., Setianingrum, A., & Yusuf, C. (2022). Corporate governance and leverage on firm value: Evidence of Indonesian large firms. *Jurnal Keuangan Dan Perbankan*, 26(4), 862-873.
- Song, J. Y., & Le, T. V. (2025). The Conditional Beta Risk-Return in the Pricing Models of Individual Stocks. *European Journal of Business and Management Research*, 10(2), 84-94.
- Spulbar, C., Cinciulescu, D., Ene, C. C., & Spulbar, L. F. (2025). Altman Z-Score Modeling and Financial Risk analysis: An Empirical Study on Companies Listed on the Bucharest Stock Exchange. *Studies in Business and Economics*, 20(2), 314-340.
- Wijaya, S. O., & Wijaya, S. (2025). The Influence of Corporate Governance on Audit Quality: A Systematic Literature Review. *eCo-Fin*, 7(1), 216-229.