IMPACT OF RISK MANAGEMENT PRACTICES ON STOCK RETURN: EVIDENCE FROM PAKISTANI AND CHINESE BANKS

By

Kashif Ali

A Research Thesis Submitted to the Faculty of Management Sciences,

National University of Modern Languages, Islamabad

In partial fulfillment of the requirements for the degree of

(MSBA)

Supervised by

Mrs. Najaf Aslam

DEPARTMENT OF MANAGEMENT SCIENCES
NATIONAL UNIVERSITY OF MODERN LANGUAGES
ISLAMABAD

NATIONAL UNIVERSITY OF MODERN LANGUAGES

FACULTY OF MANAGEMENT SCIENCES

THESIS AND DEFENSE APPROVAL FORM

The undersigned certify that they have read the following thesis, examined the defense, are satisfied with the overall exam performance, and recommend the thesis to the Faculty of Management Sciences.

Thesis/ Dissertation Title:
Impact of Risk Management Practices on Stock Return: Evidence from Pakistani and Chinese Bnaks

Submitted By: **Kashif Ali** **Registration #: FC.MSBA-248**

Master of Science
Degree Name in Full

Business Administration
Name of Discipline

Mrs Najaf Aslam _____
Name of Research Supervisor Signature of Research Supervisor

Brig(R) Dr. Maqsud-ul-Hassan _____
Name of Dean FMS Signature of Dean FMS

Brig. Muhammad Ibrahim _____
Name of Director General Signature of Director General

_____
Date

CANDIDATE DECLARATION FORM

I **Kashif Ali**

Son of **Muzaffar Ali**

Registration # **FC.MSBA-248**

Discipline **Business Administration**

Candidate of **MS** at the National University of Modern Languages do hereby declare that the thesis (Title) Impact of Risk Management Practices on Stock Return: Evidence from Pakistani and Chinese banks.

Submitted by me in partial fulfillment of MS degree, it is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

I also understand that if evidence of plagiarism is found in my thesis/dissertation at any stage, even after the award of degree, the work may be cancelled and the degree revoked.

Feburary, 2020 _____

Date Signature of Candidate

Kashif Ali

Name of Candidate

Abstract

This study examines the impact of Risk Management Practices (Size Premium,Value Premium, Market Premium, Liquidity Premium, Credit Risk Premium, Capital Adequacy Ratio and Operational Risk) on equity returns by applying fama and French augmented seven factor model. In addition to literature, this study aims to explore non-conventional anomalies in asset pricing domain such as Liquidity Premium, Credit Risk Premium, Capital Adequacy Ratio and Operational Risk are considered as important aspects of Risk Management Practices and there is need to identify the impact of such factors on equity returns in banking sector of Pakistan and China. The sample size is 24 banks of Pakistan and 16 banks of China due to data availability and data for the period of 2008 to 2017. Multivariate regression is used by incorporating market premiums, size premium, value premium, Liquidity premium, Credit risk premium, Capital adequacy ratio and Operational Risk to measure the risk return relationship in Pakistan's banks and Chinese banks. An analysis of results reveal that all the factors i.e NPL, CAR, HML are found insignificant for Pakistan except size premium and liquidity premium and operational risk premium which are partially contributing for some portfolios. On the contrary, for China HML, NPL and MKT and CAR is some how significant and positive but partially, not for all portfolios. It enlighten the fact that Chinese banks partially pricing more factors than Pakistan's banks. Therefore, this seven factor model facilitates investors in making valuable decisions about investments and resource allocation in emerging economy like Pakistan and China.

Keywords: CAPM; Value effect; Liquidity premium; Credit risk premium; Operational risk; Capital adequacy ratio; Multivariate regression

TABLE OF CONTENTS

Chapter **Page**

LIST OF TABLES

LIST OF ABBREVIATIONS

APT	Arbitrage Pricing Theory
MPT	Modern Portfolio Theory
CAPM	Capital Asset pricing Model
F & F	Fama and French
HML	High minus Low
SMB	Small Minus Big
LIQ	Liquidity
NPL	Non-Performing Loan
CAR	Capital Adequacy Ratio
CR	Credit Risk
OP	Operational Risk
S.D	Standard Deviation
M.V	Mean Value
I.V	Independent Variable

ACKNOWLEDGEMENT

Allah never spoils any efforts. I set my unfeigned and meek thanks before Him, Who is the only supreme authority and whose presence has been figured on the two words ′Kun Faya Kun′. Every tiny or massive entity moves with His permission. Countless thanks to Him, Who bestowed upon me the potential and ability to contribute a drop of material in the existing ocean of knowledge.

But the real success for any person in this world is that for which I have no words to pay in the court of Holy Prophet Muhammad (P.B.U.H) that I am in his ummah, and his moral and spiritual teachings enlightened my heart, mind and flourished my thoughts towards achieving high ideas of life. In the view of his saying,

"He, who does not thank to people, is not thankful to Allah"

From the formative stages of this thesis to the final draft, I owe an immense debt of gratitude to my supervisor, **Miss Najaf Aslam** (Lecturer at Department of Management Sciences, National University of Modern Languages, Islamabad), who is gifted with all traits of an excellent teacher and guide. His benevolent attention, kind supervision, inspiring guidance, useful suggestions, keen and continued interest and inexhaustible inspiration enabled me to attain my research objectives without any difficulty. His untiring attitude towards work has given me enthusiasm to follow this approach towards life. No expression, verbal or written, can be conclusive interpreter of my feelings of thanks for him.

I am highly indebted to **Mr. Kashif Khurshid** and **Mr. Shakeel Ahmad** who have been always there to listen and give advice. I am deeply grateful to them for the long discussions that helped me to sort out the technical details of my work.

Most importantly, none of this would have been possible without the love and patience of my family. My family, to whom this dissertation is dedicated to, has been a constant source of love, concern, support and strength all these years. I would like to express my heart-felt gratitude to my family. My extended family has aided and encouraged me throughout this endeavor.

Now, I am trying to acknowledge a tremendous debt of feelings for my parents whose prayers, sympathies stress my way towards success, whose hands always rise in prayers for me. Who always wish to see me successful in every field of life and without their moral supports, the present distinction would have merely been a dream. They always act as a light house for me in the dark oceans of life path. (Ameen).

Kashif Ali

DEDICATION

I dedicate this thesis to my parents. Especially my father who always encourage me to hard work in life. Without their understanding, altruistic love and prayer the completion of this work would have not been possible.

CHAPTER 1

INTRODUCTION

1.1 Background.

To find the better models for explanation of asset pricing, the interest is continuously increasing. This interest is being stimulated by the invention of the financial markets in the recent years. Along with this popularity, the asset pricing is based on the huge amount of literature and knowledge. The model of asset pricing was built by three persons Sharpe (1964), Lintner (1965), Mossin (1966) which later called (CAPM).Conclusively, that era was the most advanced era of literature and its authentic studies which were published by Fama French in (1993) in which different authors compared their models having various variables which they were used. Later on, they introduced three-factors asset pricing model. In the addition of market factor, this model had other two factors such as size premium and book to market (B/M) value. Moreover, the authors Arshanapalli, Coggin, Doukas (1998) recommended that the three factor asset pricing model of Fama and French is also reliable for stock market other than US market. Hence, the capital asset pricing model narrates the connection among the systematic risk and expected returns for assets especially stock.

The model of (CAPM) illustrates connection among the risk and expected return. The usage of CAPM is extensively apply in the field of finance. The reason behind the the utilization of this model in this field is only for the sake of the safety for the return. The shareholders prefer this model, the reason they choose this model and utilize this only for the improvement of risk and create a high rise of returns. In the model of capital asset pricing, the turning point is in the CAPM by the theory of Markowitz. He presents this theory in the year of (1952) in which this theory delivers foundation for enlargement of the risk return model. In(1964), Sharpe elaborates the connection between the return of risk by the way of a single component model. Furthermore, another CAPM model launch by the Peterkort and Neilsen in the year of (2005) to explore the book-to-market ratio as a substitute of risk. The research indicates the antithetical connection

among the book-to -market ratio in banks and stock return. Another further analysis diversify their effort from beta, size and book to market equity to check out pricing of beta in appearance of factor of risk which the strength of market. Moreover, other research refers the conditional beta and the association of return. The discovery of this model increase the comprehension and better understanding of the behavior of capital market which should be reliable and valuable for shareholders and a large group of corporate manager in financial settlement.

There are plenty of investigations which illustrates the authenticity of Fama and French model which is based on three factor model. Fama - French observed the behavior of stock pricing in the direction of the size and value. According to their observations, there is no correlation BE/ME factor in the return and obtaining, on the other hand ,the other two factor market and size are beneficial to elaborate those factor in return. In other study, which investigates the connection among the size and market beta with an anticipate return. They didn't get any reliable proof which can hold up the beneficial connection among beta and stock return in Pakistani and Chinese banks. Contradictorily, they got a strong and reliable link among the sizes and returns. The other research investigates on the firm size and stock return. Fama and French examine in (1992) association among asset pricing model for the business interprises firm. According to their studies, they explained these three factors in financial firm and presenting the asset pricing model. It has been said that from the last few decades that many other approaches are utilize to calculate the risk. The influences of risk management (Liquidity risk, operational risk, capital adequacy ratio and credit risk,) was on the stock returns of Pakistani and Chinese banks. As non-financial firms are performing their operations but on the other hand banks are not operating the same circumstances as non-financial firm. The main and the basic variation is that, in any kind of situation ,financial firms also move in financial prices and disaster. For a general shareholders, financial disaster and anxiety have a big and high insignificant utilization. The expected profit can be with the value of banks, size of banks, liquidity of banks and some other diverse attributes or credit (Gandhi and Lusting 2015). If any bank considers to make his services in a failure manner and observe a low return then the expected stock return of the huge bank is quiet higher than that of smaller banks which have the same numbers of portfolio assets. The main reason behind this is that the government engage the

some portion of bank risk in which large banks have the capability of some size and risk management. This study illustrates the impact of risk management in practices such as (value premium, size premium, market premium, liquidity, Credit risk Operational risk, Capital adequacy ratio) on the stock returns of Pakistan's and Chinese banks.

Liquidity describes the degree to which an asset or security can be quickly bought or sold in the market without affecting the asset price. Market liquidity refers to the extent to which a market, such as a country's stock market or city's real estate market, allows assets to be bought and sold at stable prices. Liquidity is considered as the most vital element to elaborate the asset pricing mechanism. A liquidity risk premium is an additional return on bonds that are not actively traded. Illiquid bonds cannot be easily bought and sold at fair market value. To compensate investors for this lack of liquidity, illiquid bonds pay a premium. In financial economics, the chief principle and the most popular fact is that in financial equipment, the liquidity gets change time by time. Moreover, in the world of asset pricing, numerous researchers did good work in the field of liquidity to declare it importance and effectiveness. Those researchers are known as Avramov and Chordia (2006) According to them, we can explain liquidity risk on stock returns. As far as, the literature is concerned, which is bondless and limitless. To make some commitment for investment, Liquidity evaluate as a necessary and indespansable part. According to the observation of Amihud and Mendelson (1986), They find that there is favourable link among liquidity and stock returns.

Credit risk premium is the return in excess of the risk free rate of return an investment is expected to yield an asset risk premium is a form of compensation for investors who tolerate the extra risk compared to that of a risk free asset in a given investment. This excess return or credit risk premium on loans and bonds. In this study, credit risk is measured with non performing loans. The study also confirms the effect of credit risk premium on stock return. Merton (1974) first introduced credit risk premium as a market anomaly and stated a model called Merton model for assessment of credit risk and return. In banking or financial sector loan is the bigger factor of credit risk. In any case, different sources of credit risk involves in many activities of the

banks. Banks and financial firms faces credit risk in most of money related transaction like advances, interbank loan, forwards, future, swaps foreign and exchange financing etc. Thus these credit risk have a major affect on stock return of these firms. Basically credit risk is described as the possibility that a bank borrower or counterparty will disregard to meet its obligations according to agreed term. The basic objective of credit risk management is to enhance a bank's threat adjusted rate of return by keeping up credit risk inside commendable parameters. Banks essentially deal with the credit risk nature in the entire portfolio and in addition the hazard in specific credits or exchanges. Fama and Macbeth (1973) described the relationship between credit risk and stock returns by cross-sectional regressions of monthly individual stock returns.

Operational risk is probability of low consequences from poor and insufficient processes, administration or policies ,poor organizations, mistakes of workers, swindling, cheating or other lawbreaker activity. These events can make disturbance any business process. Operational risk is generally known as a latest field of risk in research. In the opinion of loader (2002), there is not reliable and valid definition of consensus exits but on the other hand ,some companies have their own definition regarding the operational risk. For instances, jarrow and turnbull in the year of 1996 check off the position of controls and planning. The vital and the most important definition of operational risk is that it is the kind of risk which causes the from diverse operational activities only because of the organization of business as compared to the financial risk of business in the opinion of (Chorafas, 2004). Some other instances of operational risk are involved such as: failiure of I.T. distruction of some physical issues the mistakes of administrations, swindling and other some operational circumstances. This thing is also noticeable that all these types of risk can destroy the all type of business. Therefore, it can be said that operational risk is an important and basic issue which is very essential and vital for all sorts of business area.

Capital adequacy ratio (CAR) is a measure of banks available capital expressed as a percentage of banks risk-weighted credit exposures. The capital adequacy ratio, also known as capital-to-risk weighted assets ratio (CRAR), is used to protect depositors and promote the stability and

efficiency of financial systems around the world. Generally, a bank with a high capital adequacy ratio is considered safe and likely to meet its financial obligations. The data for capital adequacy ratio is taken from annual reports. Capital base of money related some foundations which motivates them its internal parts which have some unexpected stuns. Furthermore, the awareness of foundation will go on its fidelity capital which is an important administrative variable and the riches augmenting monetary establishment hypothetically which is the capital position will devastate its capital size, structures and the home loan insertion.

The study investigates the affect of risk management practices like Value premium, Size premium, Liquidity risk premium, Credit risk premium, capital adquacy ratio, operational risk on stock return of banking sector of these two emerging countries China and Pakistan. The data period of the study is from June 2008 to December 2017. This study check the effect of liquidity and credit risk premium with non performing loans on stock return by using Fama and French proposed seven factor model. Usually, it has be seen from literature that the explanatory power of multi factor asset pricing model on Fama and French methodology is greater than the traditional CAPM model.

Jelena et al ., (2012) Banks are currently encountered with numerous styles of monetary and monetary danger in all type of concentration they adopt but if the dangers are handled nicely, they result into the growth for the banks. Commercial enterprise grows specifically by using taking risks because extra the threat, the better the income and consequently the bank should attack a trade-off the danger is potentiality anticipated and sudden occasions might be additionally negative effect on a financial institution's principal and pay checks anticipated sufferers are usually occupied by using appropriate estimating approach, Unexpected sufferers, each arranged of individual experiences besides complete collection of popular totally are borne by way of the bank itself and as a result taken care by using the considered necessary capital. This consequently requires good enough funds suitability necessities.

A bank might end consequence into massive influence customers that might cause multiplier influences at the domestic and global marketplace. The significance of the banking role demands right regulation for you to preserve patron confidence. An important part of the regulatory framework involves financial institution capital which features as a buffer towards losses. Capital characterizes a supply of assets towards group a lengthy with deposits and borrowing. An undercapitalized financial institution will find itself subjected to high excess prices at some stage in durations of tight cash Srikant et al,(2010). Stock return is level of investor riches inside in security exchange where brokers are looking for to augment riches by utilizing challenge money related threat. Stock commercial center is a market that empowers trade in securities after openly cited gatherings and experts' securities. A stock commercial center shape is an indispensible substance in the administration, financial specialists plus diverse partners. It's spine of money related to framework since it advances green capital portion and riches creation. Research demonstration financial exchanges are broad for monetary increment Seraj (2013).

The motivation is going come back to the later alluded to as resource valuing form (CAPM) which was developed be three extraordinary people Can Chen et al., (2015) convince the most predominant research inside the writing on Fama's three factor models, in which writers inspect the adaptation containing the particular factors till the time they utilized. Not with standing the market component, this variant contains more noteworthy components Yue Xiang (2018) recommend that Fama 's three factor demonstrate is in like manner pertinent for stock center beside US stock center. So capital assets pricing model estimating the relationship among the return and risk for property, specifically stock. The effect of chance control rehearses on stock returns. Liquidity depicts how much a benefit or security might be quick offered or sold in the commercial center without influencing the advantage.

Take a look at investigates the effect of risk management practices like Value premium, Market premium, Size premium, Credit premium, Liquidity risk premium, capital adquacy ratio, operational risk on stock return of banking area of these rising countries China and Pakistan. The information period of the look at is from June 2008 to June 2017.we are checking

the impact of liquidity and credit risk with non performing loans on stock go back by way of using Fama-French proposed seven factor model. The explanatory power of multi element version on Fama- French methodology is greater than the traditional Capital asset pricing model.

This study aims to test the applicability of Fama and French proposed 7 factor model by adding risk management practices (liquidity, capital adequacy, operational risk, credit risk) as a four, five, six and seven factor in Pakistan and China by considering banking industry. In this study, a new proxy will be used (non performing Loan) for credit risk premium and (liquidity coverage ratio) for liquidity which are not seen previously. This study will also provide insight about the Impact of credit risk premium, operational risk, capital adequacy ratio and default risk jointly on stock returns of banks in emerging markets (Pakistan and China).

1.2 Theoretical Background

1.2.1 The Modern portfolio theory (MPT)

Modern portfolio theory put forth by Markowitz (1952) in portfolio selection is about minimizing risk and maximizing return on investment. The main theme of the theory is to diversify the risk and get more return on selected portfolio. Diversification is to select the group of securities for investment that have lower risk. Efficient portfolio gives high return at a given level of risk or lower risk at high level of return. MPT also called management portfolio theory measures the advantages of diversification called not putt all your eggs in one basket. The extension of this theory by Treynor and William Sharp (1961, 1964) lead the foundation of (CAPM).

1.2.2 Capital asset pricing model (CAPM)

The capital asset pricing model for single period suggests a simple linear relationship among the market risk and the expected return of a security. This theory is provided by CAPM

presented by Treynor (1961), Sharp (1964) and Lintner (1965). This theory expresses relationship among stock return and risk. According to Capital asset pricing model a single factor like market premium (Rm-Rf) affect the portfolio return. Investors can diversify its risk but cannot totally avoid the risk related to their investment because systematic risk (market risk) is common for the whole market. This single factor is criticised by too many researchers and states that CAPM can't better explain the relationship of return and risk. In traditional CAPM framework, both return and risk increase in a linear fashion along the straight-line from the risk-free rate (RFR hereafter) to the market portfolio, that is, capital market line (CML), which is further extended to the creation of a security market line (SML henceforth).The SML visually represents the relationship between risk and the expected or the required rate of return on an asset. The equation of SML, together with estimates for the return on a risk-free asset and on the market portfolio, can generate required rates of return for any asset based on its systematic risk.

1.2.3 Arbitrage Pricing Theory (APT)

The theory of Arbitrage Pricing introduce by Ross (1976) states that there are number of factors on which stock return depends. Theoretically this anomaly challenges the capital asset pricing model (CAPM). The empirical studies indicate that there is not a single factor asset pricing model affecting the return of securities. The results of direct tests have been unsatisfying, current evidences from studies explores the presence of additional factors, which are applicable for asset pricing of the securities. According to the evidence presented in Banz (1981) study indicates that the capital asset pricing model is miss specified. Further more this argument has been tested by too many researchers and found the presence of additional factors but this does not allocate the problem of portfolio efficiency. The APT theory has been empirically tested in numerous markets of the world but this does not identified the factors associated to the stock returns variations. For this purpose various studies have been adopted in all part of the world in order to manipulate these factors.

1.2.4 Fama and French three factor model

The contributions of Fama and French (1992, 1993, 1996, 1998) proposed significant substitute model for asset pricing based on Arbitrage Pricing Theory framework. That is Fama and French three-factor model. This model suggests that stock return is defined by market premium, size premium and value premium. For the first time Fama and French(1992) found that E/P, Size, leverage and book to market ratio of stocks have significant high explanatory power in explaining the variations of stocks returns. They explained that pricingof the stocks is determined through these factors. This FF model has been tested in several markets of the world but very little work has been done in South Asia. Therefore this study includes the stock markets from south Asia. The countries include China and Pakistan. All these country have a major strategic importance as like Pakistan is linked with emerging markets that is China and Middle East. Hence China and Pakistan have also strategic importance in this regard like trading links with Asia and European countries. For this purpose it is very important to check these widely accepted factor affecting approach in these equity markets. The study examines the impact of Risk Management practices like size, value, credit risk, Liquidity risk, Capital adequacy ratio and Operational risk anomalies on stock return of Pakistani and Chinese banks. The size premium is the historical tendency for the stocks of companies having small market capitalizations will better perform than the stocks of firms having large market capitalizations (Banz 1981). Stock having small market capitalization will get high stock returns; the fact of this high performance is because of the compensation of an additional risk factors. This additional risk factor is included in Fama and French three factor model. Size premium is that small companies or firms (having small market capitalization) go to better perform than larger companies or banks (Basu 1983). A firm's economic growth is eventually the driving force behind its stock's performance, and small firms have much longer runways for growth than that of larger firms. The biggest commercial bank stocks positioned by aggregate size of the balance sheet, have significantly low risk-adjusted stock returns than that of small- and medium-sized bank stocks, despite the fact that larger banks are altogether significantly more levered (Gandhi and Lustig 2015). This study uncovers a size factor in term of bank stock return. Banks are not quiet the same as non-financial firm in too much conducts. One of the big differences is that banks also run in banking crises, not only by depositor but also by creditors (Gorton and Metrick

2012). It is due to the reason of financial crises which are highly negligible utility states for the common investor as the expected stock return on bank stocks should be particularly sensitive to changes in the projected financial disaster recovery rates of bank shareholders related to bank size, the regulatory administration, government guarantees and certificates, and certain other attributes. The study also explores the effect of Value premium on stock return. Value premium is defined as book to market ratio of the firm. The book-to-market ratio derives undervalued or overvalued stocks by comparing or taking the ratio of book value of equity to its market value. The Book-to-Market ratio effect is more likely the most governed and widely used impacts in financial markets. Eugene Fama and K. G. French recognized the value premium for the first time in 1992; creating a measure well named as HML for checking variation in the stock based on value. They state that volatility of stocks is increased by HML. High and low value stock have different returns. According to the Fama and French (1998) and Griffin (2002) size and book to market factors affects are specific to countries and applying these international factors on individual equity markets can have different results. In this regard our study is conducted to check the validity of these factors in Pakistan and China equity markets. Thus the study is conducted to examine the Impact of risk management practices on stock return of Pakistani and Chinese banks by establishing a multi factor model of asset pricing for additional credit risk premium, Liquidity risk premium, Capital adequacy ratio and Operational risk.

1.3 Problem Statement

Multifactor model is a good way to explain variations in equity returns. Moreover, mispricing of securities call for a best asset pricing model that can properly explain these variations. Previous studies (Tanveer et al., 2017; Sharpe, 1963; Reinganum, 1981; Fama and French, 1993; Zhang and Chen,2008; Zhang,2010; Gabor,2012; Cakan and Balagyozyan, 2014) explain the importance of risk and return in various economies (South East Asia, Europe and Latin America, US, UK and Australia) by taking numerous anomalies such as growth, size, market premium. Contrary literature on risk management practices (Liquidity risk, operational risk, Capital adequacy ratio and Credit risk) in asset pricing domain is very limited such as (Datar et al., 1998; Lam and Tam, 2011; Marshal, 2006). Furthermore, most of the literature

captures non-financial sector only. This study aims to test the applicability of Fama and French proposed 7 factor model by adding risk management practices (liquidity, capital adequacy, operational risk, credit risk) as a six, seven factor in Pakistan and China by considering banking industry. In this study, a new proxy will be used for credit risk and liquidity i.e non-performing loans, liquidity coverage ratio which are not seen previously. This study will also provide insight about the effect of credit risk premium, operational risk, capital adequacy ratio and default risk jointly on stock returns of banks in emerging markets (Pakistan and China).

1.4 Research Questions

- Does risk management practices (Liquidty risk, capital adequacy ratio, operational risk, Credit risk) explain stock returns of Pakistan and Chinese banks?

- Is asset pricing mechanism in Asian emerging economies (Pakistan and China) is constant?

1.5 Research Objectives

- To identify the role of Liquidity, operational risk, capital adequacy ratio, credit risk premium in explaining stock returns in Chinese and Pakistani banks.

- To compare asset pricing dynamics of Asian emerging markets (Pakistan and China).

- To propose a model for asset pricing in emerging markets.

1.6 Significance of Study

The significance of studies on emerging economies is an issue of interest for buyers who view those markets as an excellent source of funding and portfolio diversification. The knowledge and prediction of anomalies may assist investors to save you from marketplace imperfections. There are a lot of studies on various factors like Value premium, Market premium, Size premium, Liquidity premium, Credit risk premium, capital adequacy ratio and operational risk i.e (Hassan and Javed, 2011; Marshal et al., 2006; Tahir, 2017) in developed countries however little or no work has been achieved in Asian emerging economies. Now a days

investors are taking interest in investing in banking sector. However, these factors (liquidity, Credit risk, operational risk, capital adequacy ratio) can be interrogated on financial shares of Pakistan and Chinese banks.

Capital assets pricing model represents the relationship among the return and risk in economic sector of every countries. This study checks the impact of risk management practices like (LIQ, OP, CR and CAR) on banking sector of two emerging countries Pakistan and china. Capital assets pricing model play an significant character in the growth and expansion of the country's economic system. Banking zone considered one of the important sectors to maximize finance of the businesses. In past few decades, there were many adjustments are made for coping with to the banking enterprise because of large scale of bankruptcies in banking institutions. Banking group of Pakistan and China has encountered massive variety of risks including liquidity, credit risk, Capital adequacy ratio, operation risk, so majority of the investors are risk averse and they demand premiums for taking such risks. This can make contributions to fill the gap in exiting literature by studying risk premiums along with stock retuns in asset pricing domain. Therefore, these factors studied in literature by taking them as risk measures. But now, investors usually focus on portfolios for diversification purpose rather than single investments. However, this study is very much beneficial with respect to diversification and portfolio management.

Furthermore, Previous studies (Sharpe, 1963; Reinganum, 1981; Fama and French, 1993; Zhang and Chen,2008; Zhang,2010; Gabor,2012; Cakan and Balagyozyan, 2014) explain the importance of risk and return in various economies (South East Asia, Europe and Latin America, US, UK and Australia) by taking numerous anomalies such as growth, size, market premium but not in Asian emerging markets (Pakistan and China). So this study aims to test the applicability of Fama and French proposed 8 factor model by adding (Liquidity risk premium, Credit risk premium, Capital adequacy ratio and Operational risk) as a six, seven and eight factor in Pakistan and China by considering banking industry. In this study, a new proxy will be used for credit risk and liquidity i.e non-performing loans, liquidity coverage ratio which are not seen previously. This study will also provide insight about the effect of credit risk premium,

operational risk, capital adequacy ratio and default risk jointly on stock returns of banks in emerging markets (Pakistan and China).

CHAPTER 2

REVIEW OF LITERATURE

2.1 Theoretical Background

The trade-off among risk and return is a key detail of effective monetary choice making. This consists of each selection via individuals (and financial institutions) to spend money on monetary belongings, including commonplace stocks, bonds, and different securities, and decisions by means of a firm's managers to put money into physical belongings, along with new setup and equipment. The risk-go back relationship is defined in two separate lower back-to-lower back articles in this month's problem. This technique has been taken because the risk-return theory is covered in separate but interconnected components of the syllabus. We need to recognize the values that underpin portfolio principle, earlier than we will appreciate the introduction of the CAPM St.Lucia (2004). CAPM Eugene (2005) assessing open and private supported activities for cost of capital. This mark down accuse is regularly imagined of the guide of a model of expected return. The CAPM has been generously utilized for evaluating risk return relationship. The stringent assumptions on which CAPM is predicated apparently make it difficult to use, specifically in emerging markets. However, those assumptions are not as inflexible as they seem. The model has now been tested for more than a few emerging markets inclusive of the ones in South East Asia, Europe and Latin the united states, besides the evolved markets of the USA, UK and Australia Graham (2002). Johnston et al., (2005) thought about the profit to-value proportion to give a clarification for CAPM's misspecifications and delineates a factually monstrous improvement. In any case, while firms' size impact is overseen for, length is by all accounts more noteworthy ground-breaking than acquiring to-value proportion.

Aima (2015) observed affirmation of a relationship between credit risk, loan loss provision and capital proportions which are predictable via usage of loan loss provision to limit predicted fee. Jelena et al., (2012) depicted that capital adequacy ratio and Liquidity premium are focused in excessive default threat firms, as a result including credibility to the belief that risk aspect is intently related to go back for size and fee taken care of portfolios.

Alanass et al,(2002) proposed that companies stock are restricted which have excessive credit risk but now not for the ones that have excessive credit first-class and earning. The empirical evidences of the look at shows that equity go back decreases when transferring from excessive to low portfolio taken care of on credit score hazard top rate. He in addition defined that this curve and effect cannot be explained by means of distress threat book to value size or liquidity measures. Nzioki (2009) implemented the equal idea on united states of America bonds and locate with statistical evidences that credit risk has an effect on bond return.

The importance of liquidity has not been underlined by method for the money related foundations. Further, monetary establishments, for their own one of a kind intrigue and the entire financial machine, should save more prominent liquidity than they tend to keep up inside the past. The get section to liquidity and outside wellsprings of financing relies upon the size of the money related organization and range from bank to bank The bank length has a full-estimate sway on liquidity of banks Conflictingly, Nzioki (2009) saw that bank length has no immense effect on banks' liquidity. simultaneously, the examination of Yuan sho (2015) in their investigations articles revealed that budgetary organization estimate considerably affects at the liquidity of the bank anyway in an awful way. It implies that bigger the bank measure lower will be liquidity with banks; a poor affiliation, said in some other case.

George (2002) showed some benefits as a variable that unquestionably and definitely impact banks' liquidity. In any case, the situating of Rong Rong (2018) demonstrates that banks liquidity is contrarily supported by benefit. Simultaneously, Researcher uncovered the irrelevant impact of productivity on monetary establishment liquidity. With regards to the discoveries of Aleksand et al., (2014), there is a reverse dating among stores and bank's liquidity, which implies upward push in budgetary foundation stores results inside the decrease of its liquidity. Aima (2015) impact on banks' liquidity. Johnston et al.,(2005) also contended that banks face liquidity issues when in banks are pulled back unexpectedly.

Judith (2010) played out an investigation on US and euro banks to break down the association between capital and liquidity all through 2000 to 2006. The investigation discovered

that banks decrease their capital in appearance of liquidity or when they go over illiquidity. The examination of Graham (20020 delineates high caliber and significant association between banks capital and banks liquidity.

Modern portfolio theory created by Nobel Prize champ Markowitz(1952). It portrays an extreme speculation choice as one that amplifies the normal return of a portfolio for a given phase of danger, or that venture determination that limits portfolio risk for a given measure of portfolio anticipated return. MPT portray venture as standards of enhancement where in a lot of character unpredictable property will shape a portfolio with all inclusive limited risk for the indistinguishable expected return. Offers and securities move in opposite directions, yet a total of a stock and a security will yield a portfolio with all inclusive lessening chance for a given return. Modern portfolio theory found that a portfolio comprised by method for emphatically connected property result to bring down risk. The guideline expect a green commercial center with sane danger disinclined purchasers; suggesting that one will best embrace an unsteady speculation handiest if the profits were proportionate dependent on character chance inclination. MPT idea characterized risk as the unpredictability of possessions costs and the normal return as a gathering of weighted resource returns. Markowitz guideline propelled normal difference parts that blends resources portfolio to create a productive boondocks bend which recognizes the most gainful portfolio for subsidizing.

Ross, (1976) Arbitrage pricing theory is a benefit evaluating form that depicts Stock returns as an element of a chain of danger components. The rule progresses toward becoming proposed by methods for Rong Rong (2018). This model is an latest Capital Asset Pricing model (CAPM) with the guide of Sharpe and Litner that fought that stock returns are a component of beta possibility best. Not at all like CAPM, APT depicts that stock returns is a component of a chain of risk factors beginning from organization and large scale danger factors when contrasted with CAPM.

According to the declaration of Vishny et al. (1994), if there is a fundamental affect of risk management practices on stock return, then risk must be on high low level. when financial specialist estimation turns out to be increasingly According to the evidence of Bullish Bearish Loughrans 1997,specifically in all accounts to the post 1963,not value premium were found in this era among the growth stocks and its accounts There was approximately incomprehensible value premium for minute and expensive U.S stocks in the phase of 1926 to 1963. According to the discovery of Bauman et al 1998, Distinctions In execution among huge growth Stocks and value Stocks was more noteworthy than among little growth stocks and value stocks. As stated by Doukas Kim et al 2004, he discovered the benefits of explanation regarding their risk element just according to the wellspring of significant value premium. Petkova et al 2005 demonstrated that the monetary essentials of significant enterprises value react adversely to monetary stuns while this wasn't valid for the development of Stocks. Kwag et al 2006 developed genuinely a value of portfolio which strikes a development portfolio through all economic situation and that the advantages of significant worth contributing were much more prominent during times of withdrawal than during times of extension. Xing et al 2006 developed that the roots of significant firms value decay forcefully In down turns, but development firms likewise, occurance a decrease in basics the decrease circumstances was significant firms utility.

According to the Phalippou, 2008 he showed that a huge part of the value premium arises through low degrees with stock of institutional possession which represent just 7 percent of stock advertise financing. Due to this discovery, it was suggested that the value premium was made by the propensity of certain financial specialists to misprediction certain stocks that were additionally exorbitant to exchange. As Athanassakos, 2009 stated by additional evidence on value premium usage of particulars Canadian information for phase 1985–2005 and a pursuit procedure including both value to-income p/e and cost to-book value p/b proportions. The investigation reported a reliably solid value premium over the example time frame which persevered in both bear and bull markets just as in downturns and recuperations. Numerous exact investigations have been done on value and growth contributing. Be that as it might the vast majority of these investigations focused on the us securities exchanges; a couple of them concentrated on non-U.S markets. No examination has yet been led on the clarification of

significant value, premium in Dhaka, stock trade. This gave the explanation behind leading an examination on proposed theme by utilizing information of the DSE from 2000 to 2009. The growth/ value writing gave broad proof on the unrivalled execution of significant value stocks over growth ,stocks and omnipresent value ,premium. Through the announcement of fama-french1992; Vishny et al 1994; Haugen 1995; de bondt and thaler 1985; fama 1998; and Davis et al. 2000, the value stocks in the U.S financial exchange was briefly explained regarding the explanation of significant. In any kind of situation, couple of concentrates concentrated on, non U.S markets. growth as well as Value stocks may in reality doing diversely in non U.S markets in light of contrasts in the ways financial specialists carry on in those business sectors. Bauman et al 1996 announced that both the quality and the accessibility of speculation investigate data changed impressively starting with one nation then onto the next, also no exploration has yet been done on clarification of significant value , premium in dhaka.

Hou et al., (2011) The utilization of firm size as a estimating variable and its consideration in resource valuing models depends on the presumption that firm size intermediaries for a basic risk trademark. By and by the relationship of firm size to risk had not been ex risk foreseen by budgetary hypothesis; rather the reasonable underpinnings were given just ex post after the relationship with the capacity of firm size to foresee stock returns was archived observationally. Therefore there was a contention about whether the experimental discoveries on the firm size premium ought to be translated as proof of the capacity to intermediary for fundamental risk attributes. The size premium displays a few baffling attributes that fuel this doubt as quickly referenced in the past segment. in the first place the size premium didn't appear to be consistent crosswise over districts. Hou et al., 2011 examined stock returns in 49 economies dismiss the covariance chance model of firm size and presume that the stock cost force and the proportion of money flow to-value best catch the variety in stock returns. Cakici tang and yan 2016 looedk at the valuing factors in 18 developing financial exchanges and presume that both firm size and energy neglect to dependably foresee future stock returns. These discoveries were risk dous in such a case that firm size intermediaries for an hidden risk measurement we would anticipate that it should be efficiently related with stock returns in different settings. Second a few examinations propose that the size premium vanished after the

1980s and afterward re-emerged after 2000 van Dijk 2011 intermediaries for major risk measurements ought to be generally persevering after some time.

Horowitz et al,(2000) observed the vanishing size impact as proof that firm size ought not be translated as an intermediary for a shrouded risk factor. Third the premium was moved in the period of January keim 1983 it wasn't trifling to clarify why little stocks were deliberately less secure in January which would offer ascent to the size premium making up for the higher risk while they were no risker than other stocks in the staying eleven months. Fourth the size premium is positive when there was a general inclination of stock costs to diminish i.e. in the down business sectors or the bear markets though it was close to zero when the stock costs tend to rise i.e. in the up markets or the buyer markets; Hur et al. 2014 this appeared to differentiate the idea of methodical risk which involved low profits for more dangerous resources in the midst of monetary downturn when shortage of pay was high.
Fifth the premium was moved in the littlest stocks banz 1981 knez and prepared 1997 contend that the size impact was driven by the outrageous 1 percent of the perceptions; when these were disposed of the negative relationship between firm size and acknowledged returns switches. the non-linearity asked a clarification of why the littlest stocks were more risk dous than the rest of the stocks while simultaneously inside the remaining stocks bigger stocks were more risk dous than medium-sized stocks. 6th whenever driven by fundamental risk the size premium was hard to accommodate for the premium for stocks with positive stock cost force i.e. the past 6month profit balanced stock return; conrad and kaul 1998; chordia and shivakumar 2002; carhart 1997 a positive stock cost force infers an expansion in a companys market capitalization i.e. in firm size. it was trying to accommodate why little stocks were more dangerous while conversely stocks that had as of late been expanding in size i.e. stocks with a positive stock value energy are less unsafe. All the more for the most part analysts had noticed the weaknesses of the whole displaying structure. as mackinlay 1995 clarifies: Initially the CAPM depends on various improving suppositions that were expected to make the issue tractable. These suspicions were disregarded all things considered thus the model experiences expecting endlessly significant wellsprings of risk.

For instance the CAPM accept that all data was promptly accessible and costless to process. Practically gathering data and preparing it for a business choice might include critical expenses. Since a piece of the data generation cost will in general be fixed little firms were probably going to give less instructive divulgences than enormous firms. since the risk coming about because of an associations obscurity may not be completely diversifiable higher acknowledged profits for little stocks reflect remuneration for the higher data chance Barry whats more dark colored 1984 in a comparable vein the CAPM expect that budgetary misery and chapter 11 were costless despite the fact that they really involved critical expenses. On the off chance that an organization is underestimated on the grounds that it couldn't stay aware of the business level of creation effectiveness its stock cost was probably going to be pounded discouraging the securities exchanges capitalization. Higher acknowledged stock profits for little stocks may along these lines reflect pay for the higher danger of money related misery Chan and Chen 1991; Vassalou and Xing 2004 second the CAPM accept a frictionless market in which exchanging was costless and singular exchanges had no value sway. In all actuality resources differ regarding their exchanging expenses and market profundity. Little stocks had higher exchange costs and the market for them might be shallower since less financial specialists will in general be keen on being a counterparty in these exchanges. therefore little stocks might be less fluid and a few financial specialists e.g. institutional speculators may want to avoid them Amihud 2002 subsequently the size premium might mirror a pay for showcase defects that disable the liquidity of little stocks. third the CAPM accept that the budgetary market is effective speculators sanely assess all accessible data and resources were decently valued in that the set up cost is a fair gauge of a companies inborn esteem dependent on the data accessible by then in time.Behavioral money inquire about proposes that financial specialists were not generally superbly sound and brief takeoffs from effective valuing may happen e.g.

Lakonishok et al.(1994) on the off chance that firm size was related with methodical mispricing the abundance returns might reflect stock cost remedies as opposed to make up for higher risk. For instance little stocks might saw their costs briefly discouraged in light of the fact that the stock advertise had overcompensated to a flood of Lawful news. In such a case the costs of little stocks would be relied upon to increment later on as the showcase step by step remedies

the mispricing. Fourth it was conceivable that the detailed affiliations were false a consequence of imperfect strategy information mining extraordinary perceptions or different wellsprings of predisposition. for model lo and Mackinlay 1990 mackinlay 1995 and berk 2000 contend when stocks were arranged into portfolios dependent on already exactly archived attributes customary tests might exaggerate measurable hugeness. Moreover Knez and prepared 1997 contend that the size impact was driven by the extraordinary 1 percent of the perceptions. At the point when 1 percent of the most outrageous perceptions was cut the size impact was switched. Recognizing these elective clarifications for the prescient capacity of firm size was urgent both for a general comprehension of how budgetary markets set costs and for down to earth account application counting the estimation of the expense of capital and the presentation assessment of shared assets. On the off chance that the unrivalled profit for little stocks speaks to a remuneration for higher misery risk at that point firm size or an resources affectability to the little short large SMB factor; fama and french 1992, 1993 was a significant determinant of a companys expense of capital. In the event that rather little stocks produce better yields since they were less fluid at that point firm size was pertinent for deciding the necessary return of enormous institutional financial specialists however not really for little person financial specialists who exchanged littler volumes and in this manner were less inclined to be antagonistically influenced by disabled stock liquidity. Interestingly if predominant returns on little stocks mirror an amendment of impermanent mispricing or if the detailed discoveries depended on a wrong system at that point firm size ought to be ignored in registering the expense of capital.

Serajur (2013) portrayed acknowledge danger as the risk that gather in view of inconstancy of subordinates and obligation gadgets accordingly varieties inside the outstanding of advances and the hidden counterparties. In this inspect risk estimated the proportion of Non-performing Loans to Gross Loans (NPG). Market risk is the danger that the expense of on and stale-monetary record places of a budgetary establishment might be antagonistically experiencing moves in expenses or markets costs alongside outside trade rates, loan fees, credit risk, value costs or/and product costs prompting a misfortune in benefits and capital Alireza et l., (2011). On this investigation advertise danger transformed into estimated the utilization of trade

charge operationalized in light of the fact that the yearly cost of progress of interchange charge among Ksh and USD as per the examination .

Josef et al,(1994) portrayed liquidity as the deficiency of the obligation feature of the bank that limitations call for store and likely triggers contraption delicacy and money related foundation runs. It's far the vulnerability that stand up while a security can't be exchanged in a commercial center to turn away a financial misfortune. This investigates pursued financing liquidity chance as a level of credits to store proportion and the proportion of fluid resource for general resources. Capital risk alludes to the opportunity that the pay and capital of money related gathering is uncovered in light of absence of risk capital. It's far the amount inside which bank capital obliges danger weighted property Shahzad et al., (2011) on this look at capital danger is operationalized by methods for the proportion of center cash-flow to peril weighted resource and the proportion of investors' value range to general assets as per the consequent research. Having laid pre-essential hypothetical premise and calculated structure characterizing the relationship of factors of perception, the investigation checked on exact verification on the effect risk management practices on stock returns and related research through different researchers.

Naser et al. (2011) played out an observational view to set up the impact of credit risk and exchange chance on stock returns contingent unpredictability of banks in Australia utilizing hilter kilter and symmetrical GARCH styles. The consequence of the exploration saw out that there exist important relationship among credit risk and commercial center risk with stock return instability. The discoveries of the spectator additionally introduced that budgetary danger serves to are expecting a stock return that is useful to financial specialists and controllers.

Zang et al., (2016) directed a perception using a credit risk control on gainfulness of business banks in China. They view secured the concentrating on the measure of credit, phase of non-performing loan and gainfulness. The spectator found that gainfulness of business banks isn't affected by the amount of gross advances and non-performing Loans. The onlooker discoveries inferred that there should diverse components that impact on money related establishment gainfulness. Researcher inspected the effect of investment opportunities and credit

risk on stock returns. Perceptions utilized tradable credit subordinates of financial assessment default swaps and intrigue costs to degree credit risk. Perceptions snared unreasonable illustrative quality among financial assessment default risk and stock returns.

Can Chen et al.,(2011) researched the results of financial risk markers on investors' estimation of mechanical banks ordered in China stock trade China. Researcher inferred that credit risk signs have a centrality way on investor charge. Eugene (2010) analyzed the impact of risk management practices on stock return for the China, Stock market. The objective of the take a gander at was to imagine whether efficient danger installed at the credit spread influences stock returns. Study discovered that there might be no huge relationship among additional profits on stocks and credit risk.

Zang et al.,(2016) embraced an observational take a set up how credit risk impacts monetary organization benefit in China. Credit risk changed into estimated utilizing the proportion of Non-performing (NPL), proportion of advance misfortune save to net advances proportion of advance Loss Reserve to Non-Performing Loans (NPL) and Capital Adequacy Ratio (vehicle). Gainfulness markers utilized covered backpedals on resource (ROA) and profit for value (ROE). Their finding found a poor broad impact of NPLG on all gainfulness parameters and a considerable horrendous effect of on ROE reasoning that financial assessment chance influences banking productivity in China. Shahzad et al., (2011) stated that exact perception by method for provided evidence on the connection among liquidity risk and stock returns. It demonstrated the ways of life of broad negative pursuing among intrigue statements and stock returns. In their take a gander at the results of loan fee, conversion standard and volatilities on stock costs in Pakistan found that other value risk on modern banks stock returns is huge. They contend that banks will in no way, shape or form support their individual capacity impeccably and this opens them to exchange liquidity risk.

Josef (1994) directed an examination to analyze the effect of risk management practices on stock return of Thai banks restores the utilization of GARCH structure. They examine introduced that commercial center is a segment of stock return affectability to huge banks than to little and medium Thai banks. The examination furthermore settled that premium charge and

exchange cost are higher indicators of stock returns affectability of Thai banks. Eventually, huge banks are believed to support change rate threat and thusly trade charge risk does never again sway there stock return affectability. Jeroen (2017) broke down portfolio risk inside the guise of world money related catastrophe the use of unpredictability models of ARCH and GARCH with records of U.S, joined kingdom and Romania. The goal of the eye witness was to build up the vulnerabilities in the portfolio after some time because of monetary emergency. Displaying of stock returns instability of the records mounted that portfolio threat ended up roused by foundational powers of the money related emergency. The investigation additionally set up that enhancement of the portfolio close by the three records over the span of the emergency did now not decrease portfolio risk.

Rong Rong et al, (2018) examined the results of bank liquidity and fiscal execution of the Moroccan financial part. The investigation portrayed bank liquidity position over sort of liquidity proportions specifically; fluid affects to by and large things, fluid resource for in general liabilities, fluid possessions to stores, advances to general resources, illiquid advantages for fluid liabilities. The examination end characterized determinants of money related foundation in general execution as joblessness, bank estimate, bank liquidity, proportion of outside venture to bank liabilities. The investigate commented that impact of bank liquidity and execution is depends at the model utilized. Aima (2015) examined the impact of liquidity risk on bank by and large execution of Jordan banking framework. They examine mounted that credits risk proportion, contemporary proportion holds a mammoth dating on the banks return on decency and profit for ventures. In popular, the eye witness inferred that liquidity chance is an endogenous determinant of money related foundation execution in Jordan.

Aleksand et al., (2014) of their experimental examination on outcomes of illiquidity on capital advantage Iranian market verification. The perception demonstrated that as a result of brisk speculations skylines, illiquidity work is something critical for capital benefits increment. They see results set up that illiquidity hinders a poor dating with capital benefits. John et al., (2017) considered the aftereffects of liquidity on stock returns in Pakistan. The consequences of the examination portray that liquidity holds a negative dating with stock returns.

Chen et al., (2011) investigation at utilized proportions of liquidity specifically: offer ask unfurl, exchanging volume and turnover. The results demonstrated that the instability of stock liquidity is indispensable to brokers seeing that they use liquidity risk top class in estimating stocks. They presumed that showcase liquidity contrarily impacts stock returns at Zimbabwe s tock change. Researcher did and assessment on the effect of liquidity on gainfulness of banks in Kenya. The impacts of the examination set up that liquidity holds a sizeable enormous dating with banks return on resources. They examine characterized brief timeframe liquidity property as key in encouraging income age comprising of get together call for on stores and subsidizing of home loan obligations.

Muhammad Abbas (2017) set up that powerful obligation degree realities impacts riches exchanges crosswise over assurance polish. They view tried to set up a seeking between Capital assets pricing model and charge benefits proportion on execution of modern banks in Pakistan. The experimental take a gander at decided a huge awesome pursuing among level 1 center funding to danger weighted resource proportion and gainfulness and a terrible effect of value capital proportion on productivity.

Judith (2010) sought after an examination on capital impact on money related foundation by and large execution amid monetary emergency. The analyst analyzed the effect of capital on three segment of money related foundation in general execution in particular Profitability, piece of the overall industry and survival; throughout monetary emergency and normal cases. The analyst snared capital permits banks of all sizes increment probabilities of survival, showcase rate and benefit sooner or later of emergency. In boundless, the investigate found that capital is vital dependably for little banks anyway it's basic for medium and immense banks for the term of money related emergency.

Azzam (2010) contemplated the effect of capital asset pricing model and financial execution on stock returns an instance of Pakistani banks. They battled that adjustments fit as a fiddle and monetary generally speaking execution are considerable to look at the affectability of stock returns. In light of on their exact discoveries, they presumed that capital asset pricing

model and money related execution certainly impacts stock returns of Pakistani banks. Researcher examined the effect of capital assets on stock return obligation and adapting proportion were broad determinants of offer costs. Researcher examine the effect of financial influence and methodical peril on stock returns for business quarter at the Amman stock exchange. Precise danger transformed into estimated with the guide of beta coefficient even as monetary influence was estimated by utilizing obligation proportion. The examination inferred that systematic risk and monetary influence sway four. four % of the assortment in stock returns of the financial gatherings filed inside the Amman stock interchange which become chosen with the guide of the see as a unimportant effect.

Feghua (2014) inquired about on the connection of liquidity proportions and stock returns at Tehran. The examination utilized precise threat and partnership length as control factors. The investigate inferred that both precise shot and firm length contains an important pleasant impact on stock returns. Inverse to viable association of bank size to stock returns, Researcher searched on impact of stock returns due to length, advertise issue and book to showcase proportion, set up that firm size hold a negative pursuing with stock returns. Grahmam (2002) utilized bank estimate estimated on the grounds that the log of normal resources as a control variable and presumed that as liquidity will expand, pay continue due to economies of scale and capacity to deal with financial hazard improves thus affecting stock returns without a doubt. For banks, solid and more extensive resource base connote higher benefit resulting to all the more likely stock returns. Researcher commented that office estimate is preeminent reason for fluctuation on investor cost amplification. On this examination, liquidity risk is operationalized in light of the fact that the log of monetary organization resources.

Alireza et al. (2011) finished an exploration to discover the effect of risk management practices on stock returns. Essentially dependent on the records of one hundred fifteen gatherings at Karachi stock change in Pakistan concentrating on money related shot at big business degree, firm explicit degree and that of trading and non-sending out organizations. Stock return transformed into utilized as set up factor in the meantime as fair factor of financial possibility become spoken to by means of intrigue value, substitute charge, money related introduction, and all out peril. Firm size transformed into enlisted as a control variable. The inspector discoveries presumed that intrigue expenses and exchange costs at big business level and friends arrange

hold a negative significant association with stock returns while by and large risk, increment charge, organization estimate and money related attention wound up unimportant on big business and firm degree. Intrigue charges held a favorable huge pursuing on stock returns for sending out and non-sending out while exchange cost held a negative huge connection for the indistinguishable foundation.

Merton (1974), The fourth principal constituent of the study is credit risk premium. The average risk- adjusted returns on bank stocks portfolio based on size or market capitalization. Credit risk is fundamentally described as the ability of a bank borrower that will not repay the loan amount to the bank according to prescribed terms. When borrower cannot meet its obligation to the banks on agreed terms then risk is there for the bank. For this purpose banks need to concernon credit risk management in order to minimize its danger or loss associated to risk. Merton (1974) first introduced credit risk premium as a market anomaly and stated a model called Merton model for assessment of credit risk and return. In banking or financial sector loan is the bigger factor of credit risk. In any case, different sources of credit risk involves in many activities of the banks. Banks and financial firms faces credit risk in most of money related transaction like advances, interbank loan, forwards, future, swaps foreign and exchange financing etc. Thus these credit risk have a major affect on stock return of these firms. Friewald, Wagner, and Zechner (2014) found strong support of credit risk premium an equity return. The empirical evidences of the study shows that equity return decreases when moving from high to low portfolio sorted on credit risk premium. He further explained that this curve and effect cannot be explained by distress risk book to value size or liquidity measures. Credit risk is about the non –payment of counterparty on a debt commitment, equity risk are the main components which are include in market risk and the third major risk is about liquidity which is the risk of powerlessness or inability to meet short- term commitment. Afik and Benninga (2014) applied the same concept on U.S bonds and find with statistical evidences that credit risk premium has an impact on bond return.

Judith et al., (2010) completed an exploration to break down the effect of credit risk on stock returns of banks in Australia the use of GARCH hover of relative designs. He presumed that credit risk and market hazard sway the direct of stock returns. The watch inferred that credit

risk and market risk impressively positive in impacting bank stock returns hence wound up helpful gadget for purchasers consequently boost.

Aima (2015) stated that the suggestion that there must be a poor connection between a banks proportion of funding to assets and its backpedal on reasonableness may moreover give off an impression of being plainly obvious as to now not need exact confirmation. Researcher is utilizing a normal difference structure to assess the bank portfolio want with and without dissolvability law show that capital necessities will present changes inside the piece of the precarious a piece of the banks portfolio in any such way that hazard is quickened and the productivity of disappointment can be better.

In evaluation, other studies argue that capital adequacy has terrible impact on banks overall performance. Researchers argued that the advent of better capital requirements prompted an aggregate slowdown or contraction of financial institution credit. Bank credit being the primary supply of banks earnings implies that its contraction therefore impacts negatively the banks overall performance. Eugene (2011) pointed out that the primary characteristic of a bank is to intermediate different parties wherein manner wherein manner they perform with an underlying mismatch among especially liquid liabilities on one aspect and less liquid and long term belongings on the alternative aspect of the balance sheet. Further it offers for a supervisory evaluation manner to make certain that banks keep a level of capital commensurate to their chance profile and promote market field via disclosure requirement. This changed into done by using adjusting capital necessities to credit threat and operational chance and introducing modifications in calculation of capital to cover exposures to dangers of losses due to operational screw ups.

Aima (2015) noticed that in which investors premiums are controlling, capital is an imperative administrative decision variable and the capital capacity of the riches amplifying budgetary establishment hypothetically will influence its capital structure and the credit approach. To the degree that capital has an impact on loaning, it has suggestions for the general execution of banks as budgetary go-betweens and along these lines for the distribution of genuine resources in the money related framework. Researcher closed with the guide of pointing

out that from this viewpoint, commercial center chose capital capacity respected most noteworthy.

Capital base of money related foundations encourages them inside the retention of unexpected returns. It furthermore cautions that the foundation will keep on respecting its commitments Capital is a basic administrative decision variable and the capital position of the riches augmenting monetary establishment hypothetically will affect its capital structures and the home loan inclusion. To the volume the capital affects loaning, it has suggestions for the general execution of banks as money related middle people and accordingly for the portion of genuine resources in the monetary framework. Srikanth (2011) saw that capital approaches help in bringing down negative externalities (for example standard loss of certainty inside the financial framework) correspondingly to boosting the GDP.A least amount of capital is required to guarantee wellbeing and soundness of the money related foundation and furthermore build concur with and certainty of the clients.

An extensive range of indicators are available for reporting via economic institutions. The most vital are the macro prudential indicators broadly described as indicators of the health and balance of the monetary gadget that assist countries to evaluate their banking systems vulnerability to disaster. These indicators are usually known as the CAPM framework. The use of the framework became encouraged through this factors for comparing the overall performance of banks. This framework entails the evaluation of six businesses of signs reflecting the fitness of economic establishments and encompass; capital adequacy, Asset first-rate, control soundness, earnings, Liquidity and sensitivity to market place threat.

In Operational risk, the literature is comparatively unimportant in thr other areas of risk research, however literature grown up recently in this period of time. A heavy amount has been devoted for the measurement of operational risk literature. there are three methods which are foremost and the most important such as; are the Basic Indicator Approach (BIA), the Standardised Approach (SA) and the Advanced Measurement Approach (AMA).

Shevchenko and Wuthrich,(2006) each event of modeling was connected loss distribution and it combined every event's distribution to provide the operational risk into one overall distribution. In the third step, there were qualitative approaches which involves different varieties of methods ranging from scenarios to score boards. The stimulation for these measurement approaches link with the fact that operational risk was notoriously which is difficult to measure and having different demands for the requirements of different data. The data which was connected to operational risk was generally unattainable which may not currently exist for the public, Therefore some proxis which were used to evaluate the operational risk, for instance net profit for the exposure indicator. Operatioanl risk was also demanding to model only because of complex and huge number of factors, that can lead to modeling implementation and calibration complication.

Capital assets pricing model were recommended for the Case of implementation. It didn't have data demanding requirements and not necessary for calibration. however, there had some basic verifiable issues. For example, A company which is going to reduce its net profit at every year could also make better improvement in its operational risk only because if we select the exposure indicator as a net profit. The reducing of operational risk should improve for net profits but it would be considered as misleading. The CAPM approaches may be more practical but commonly they were demanding and noteworthy data requirements. For example, we must calibrate the division for each operational risk in the loss distribution method and merge them into overall distribution which logically and computationally are not significant.

In (Bazzarello et al, (2006) a process was suggested by purchasing some suitable and proper insurance for the management of operational risk; in (Peters et al.,(2011) the price of insuring was explored against operational risk. Many other literature concentrated on the issues of governance and managerial to command over operational risk e.g. in (Benaroch et al., 2012) it was recommended that I.T. operational risk should be organize energetically and constructively. The qualitative have less data demanding which are more adjustable but crucially rely on subjective and personal point of view. Another remarkable area of operational risk literature has been dedicated to its risk management. The reducing of operational risk should improve for net profits but it would be considered as misleading. The AMA approaches may be more practical

but commonly they were demanding and important data requirements. For example, we must calibrate the division for each operational risk in the loss distribution method and merge them into overall distribution which logically and computationally are not significant. The qualitative have less data demanding which are more adjustable but crucially rely on subjective and personal point of view. Another remarkable area of operational risk literature has been dedicated to its risk management. The conventional process of conducting the operational risk has been to obtain insurance (e.g. insurance against common distress).

Homan (2002) described and publically announced for a huge amount operational risk to over $15 yearly during the era of 1980s and 1990s and this amount appeared merely for the tip of iceberg, With the real amount easily being as high-rise as 10 times this amount, International banking regulatory standards elaborate the defines of operational risk as the risk of dropping resulting from poor from visible occurrences events (BCBS 2001b). This definition reflects the various nature of this risk. The Basel committee categorizes the operational risk into seven diverse event types such as Employment Practices, External fraud, and Workplace Safety, internal fraud, Damage to Physical Assets and Business Disruption and System Failures.

In operational risk there are frauds includes Internal fraud, external fraud and damages physical assets so firstly we are including internal fraud involves events, misappropriate possessions in which almost one internal party involves and classify into prohibited affairs or activities and internal fraud swindling, cheating and duplicity. secondly we are including external fraud involves events to intend defraud by third party and are ranked into stealing, sharp practice and double dealing for the protection of system then we are including damages of physical assets involves inconsistent acts regarding with employment, implimentations, good physical condition, physical fitness and related to employee relationships, protection of the environment and atmosphere and inequity and favoritism, those events which are leading to destroy the physically assets from natural catastrophe such as earthquake, flash flood, swamping and man-made events such as corruption ,destruction and terrorism.

Chernobai et al (2011), some areas operational risk are experessive of broader weakness recommended by some unreliable resources. some academic literature of operational risk is still limited and existing studies on the internal drivers of operational risk which hold up the point of view about the same idiosyncratic affects including types of operational risk such as develop a framework to judge the outcomes of internal factors of operational risk and hold on their consequences covering diverse types events of operational risk which is based on a theory which is about th deficiency of internal control and it is the main common root due to various events of operational risk.

(Poynter 2008), Organization which are weak in the protection of data they also commonly weak on a wider scale of risk management and governance. Through another scattered evidence trading loss of JP Morgan in the London Whale casein 2012 was approximetly $6.2 billion which later on disclosed in the bank's overall risk management (Metrick,2014). The focal point of this paper is based on approximately four types of events among seven types just as same consequences from increased complications which are especially linked to failures in risk managemetnt. In 1998,A vice president in citi bank's private banking section was asked about defrauding the bank approximately more than $10 million created by accounts of phony bank in 1993 and utilize them to attain some loans. Furthermore, in other example, subsidiaries of Fidelity National Financial were chargerd to pay almost $5.7million on 23 june, 2010 for the satisfaction in a $30 million mortgage fraud scam ,a role played by employees. the city bank unit of city group found a loss and fatality of loan fraud and they had dropped almost $8 and $9 million during 1997.In another incident which was happened in February 2002,citi bank and allied irish bank of America claimed that they had delieverd $200 million to john rusnak by some prime brokerage accounts, authorize him to capture uncertified trading. The indicators are powerful and robust financial system which is smooth operation for any banking sector. Due to the most active participant s of financial system ,mostly banks share the disposable funds in looking for their maximizing returns (Novickytė, 2010).

Palvia, (2011) the current financial disaster showed the protection and validity of banks to grow for the stability of the financial system. Banks represent the important and essential parts of financial market In Lithuania. the most important roles played by banks are managing

risks and increasing liquidity among lenders and borrowers (Jasevičienė, 2013). The stability and importance of banking system are still in doubt. Many authors declared the collapse of banks only because of the bankruptecy of any other institution having large effect upon the whole society. Banks always payed an important and outstanding role only because of the development of economic system and complications of financial mechanism. Similarly, societies always in search of better ways for the protection and performance of banks. Bankruptecy of banks and any types of threats are related to all types of operational risk. Risk is defined as possibility of future events whichare uncertained and namelss, positive or negative consequences of any project (Jasevičienė ,2013, Garbanov, 2010). It is only because of th liquidity risk in banking just to make sure a successful and fortunate performance in banking system.

(Jasiene, 2012), Risk management problems in Lithuania, getting successful observation and awareness in variety of risk as well as in set of risk management issues. Solvency and liquidity risk management is a method in which shareholders of a bank make their profit expand and increase without getting any type of risk or problem. The selection of the most important and reliable ratio between the risk and profit rate which is one of the most important and essential objectives in banking operations (Jasiene, 2012).Generally, risk means in banking sector as a threat in which a bank may get loss for its resources or during perform certain financial operations; they may suffer with huge loss.

According to G.Garbanov (2010), To build a solid basis at bank level for a successful business, efficient management of capital adequacy and liquidity are important factors. The risk management is about increasing the property and value of bank, decreasing its financial costs. Risk management does not mean to eradicate risk from the operations of bank in banking business. The Lithuania's bank explained the purposes about the management over credit institutions and also explained the requirements of the bank of Lithuania by some rules and regulations, also the security and reliability of banking standards suggest by Basel Committee. Many financial crises appeared only because of the failure usage of the financial market (Leika, 2008). It is important not to create any new deformation of the financial market during eradicate the effects of failure on financial market. According to Deksnytė (2010),'s point of view, bankruptcies of banks become the reason to destroy the whole economy for justification the requirements of banking system. Every state in the financial market based on its financial

stability (Šenavičius, 2012).if there would no any administrative system of financial market than the performance of financial market 's participant would not be stable and effective. According to the the observations of researchers , the banking system recognizd without any opposition about the importance of a prudential administrative of banks. Banks need some requirements to manage the level of risk established by bank of Lithuania (Jasevičienė, 2013).

Ho and Zho (2005) explored the 41 Taiwanese banks for the judgement bank's efficiency. They used two stage data for the analysis to evaluate the model in this research paper. in the first step, the assets require to judge the efficiency of income and in second step, that profit were studied which were generated to evaluate efficiency. according to Jeff (2015),there is no main differences in the standards of banks and financial institutions. Santamero and Watson(2015) showed in their studies which is known as "determining an optimal capital standard for banking industry; " in which they observed that bank reduced their credits by hard regulations.

Reynold and Ratanakomut (2014), They proclaimed that, for the banking system, the capital's optimal level should be fixed on through some points where the exact return of the banks are equally to the final costs of the banks for the community and publics. Reynold and Ratanakomut (2014), exploited in a paper named as Bank Financial Structure in Precrisis East and South East Asia; after studying this research title, they proved that about the banks's performance and final structure of banks during the year of 2007-2014 in eight easten and south east asian countries. they winded up their studies by saying that both profitability and the priority of loans had a straight relationship but in capital adequacy and size of banks also reduced with the passage of time. In the study of The 1998–99 banking crisis in Uganda, conducted by Mpuga in 2014,about the role of new capital requirements, after observing the performance of Uganda, he showed that new necessities of commercial banks during the year of 2011 and 2012,and these were very critical years , while increasing paid capital, deposits, main capital, total capital, cash assets and net profit; capital has effective and positive effect on the bank's performance.

In a study conducted by Shirley and Hsu (2014),named as leverage, performance and capital adequacy ratio in Taiwan's Banking Industry, in which they observed the relationship among risk investment planning and financial structure of banks in banking industry of

Taiwanese in which they revealed that limitations of ratio of capital adequacy was impacted by different planning of companies risk investment and the performance of those companies was relevant to its size and the ratio of financial costs. Buyuksalvarci and Abdiglu (2013), conducted a study titled as, determinant of capital adequacy ratio in Turkish banks: A panel data analysis, in which turkey's banks ratio on financial condition were observed by using different panal method to analysis. They showed that losses of loans had a positive impact on capital adequacy ratio and salary returns of shareholders.

In the study of Harly (2011), titles as, influence of capital adequacy in the banking sector of the Nigeria economy: Efficacy of CAPM, in which he elaborated about the properties of the banks, its financial structures and macroeconomic indicators in the bank industry of Nigeria. The consequences and conclusion of that study was there is a big and huge connection between inflation and bank capital in which the government of Nigeria should provide those polices based on investment in which the banks could control the inflation rate on very shortest and lowest level.

The modern portfolio theory were founded by Markowitz (1952),in the very beginning phase, in which he gave new and uique point of views on different portfolio selection which later known as modern portfolio theory. Markowitz, believed that , by addition the more security to the portfolio just to get rid of total portfolio risk. His basic and fundamental strategy for his diversification was the addition of assets with short or negative connection between the portfolio. Furthermore, the planning in the selection of portfolio's changing was from the basic point on individual risk and the returning of assets was the mean-variances or differences for optimizing structures or models. The main idea of difference in optimization framework for the arrangement of portfolio which would be same or or huge anticipation of return by eradicating the idiosyncratic risk by the usage of diversification strategy as soon as possible.

Utilizing the risk free rate, financial specialists should make an exchange of among the risk free resource as well as the the juncture portfolio. The extra risk disinclined a speculator is,

the more he puts resources into the risk free resource, the more risk looking for an financial specialist is, the more he puts resources into the juncture portfolio or goes uniformly on a little free risk advantage for utilize the returns for an extra interest in the juncture portfolio. Sharpe (1964), Lintner (1965) and Dark (1972) utilized the models of Markowitz (1952) and Tobin (1958) as beginning stage to make a capital resource evaluating the (CAPM). There are two main keys suspicios of this model. To begin with, all financial specialists ought to have similar desires about returns, dangers and disseminations of every benefit in the market and second, also loaning as obtaining ought to be accessible for each financial specialist against the risk free rate. According to this point of view, all financial specialists should hold the intersection portfolio ignored their ideal risk level.

As stated by the CAPM, there are two basics part of assest return the first one is is the risk free rate and another is segment with respect to the efficient risk the portfolio is presented to. A segment for eccentric risk is prohibited from the Capital asset pricing model since this can be broadened away as appeared in Reference section 1. The general thought of the CAPM is that financial specialists must be made up for the time estimation of cash, which is the risk free rate (rf), in addition to a risk premium as pay for precise risk. This risk premium is communicated by the market affectability (β) market risk premium (Rm-rf). The market chance premium is the distinction among the market return and the risk free rate. Thus, if beta is equivalent to one, the normal return is equivalent to the normal return of the showcase. In any case, the Capital asset pricing model fails to show its quality practically speaking. To test the quality, scholastics base their looks into on the proficient market theory (EMH) of Fama (1970). The EMH incorporates a market where costs in every case completely reflect accessible data. On the off chance that a market is productive, it gives enlightening sign to financial specialists about the estimation of advantages.

There are three degrees of essential EMH data subsets: (1) the feeble structure when costs depend on recorded costs; (2) the semi- solid structure when costs mirror all freely accessible data; and (3) the solid structure when costs contain all data additionally from speculators or

gatherings of financial specialists who have monopolistic access to important data. The hypothetical avocation of the proficient advertise theory depends on three standard thoughts: (1) all financial specialists are completely objective; (2) a few financial specialists are not exactly completely judicious, however their impact offsets in the total; and (3) a few financial specialists are non- sound in comparable, related ways, be that as it may, sane arbitrageurs take out their effects on costs. As it were, advertise costs are continuously actual and the quality of a model relies upon the illustrative intensity of the model with respect to the costs of the protections in the advertise.

Practically huge investigation about the Capital resources estimating model is that the essential suppositions of the model, considering the EMH, are also modified and silly (Dim, 1972). In addition, various scholastics (Merton, 1973; Banz, 1981, Basu, 1977) battle that the Capital resource estimating model should be a multifaceted model containing state factors what's progressively, firm unequivocal qualities. Also, the eventual outcomes of Fama and French (1992), Dull, Jensen and Scholes (1972), Chan, Hamao and Lakonishok (1990) are attesting those trial revelations. Merton (1973) was the essential educational who examined the single-estimation approach of the Capital resource valuing model and fought that the Capital resource evaluating model is a multifaceted direct model with wealth and state factors, considered 5 the Capital resource valuing model. The Capital resource evaluating model thinks about that money related authorities were supporting against insufficiencies in usage or against changes in future hypothesis opportunity set. Banz (1981) found that, all things considered, smaller firms have preferable yields over greater firms which shows a negative association among foreseen return and firm size. With this size effect, Banz attests that the Capital resource estimating model is a multifaceted model. Nevertheless, the effect is non-direct since the size effect is most grounded for the humblest firms and hazy spots for ordinary and colossal firms. In addition, it is moreover not clear if the size effect is a middle person for productive hazard or even more obvious darken factors associated with size. Moreover, in like manner various scholastics (Reinganum, 1981; Blume and Stambaugh, 1983; Dim shaded, Kleidon and Marsh, 1983; Chan et al., 1991; Fama and French, 1992) were asserting the size effect. Nowadays, no completely explanation for the size effect is given, Amihud and Mendelson (1986) and Liu (2006) commit the size effect to an illiquidity premium which suggests that more diminutive stocks are more illiquid in this manner require a higher foreseen return for theorists. Distinctive money related pros (Banz, 1981; Zhang,

2006) fight the future execution of more diminutive firms were all the more steadily to predict clear with a lower supply of corporate information.

Basu (1977) found that Cost to-Income proportion, because of misrepresented speculator desires, are markers of future venture execution. The low Cost to-Income portfolios have, overall, better yields than the significant expense to-Profit portfolios. As an outcome, Basu contends that openly accessible Cost to-Profit proportions appear to have an data content since as per the effective market speculation all advantage costs completely reflect accessible data in a quick and unprejudiced way. Futhermore, in 1980 stattman put up an evedience on the discoveries of Basu for a worth impact also, be that as it may, his hypothesis was in light of the B/M-value proportion of the firm. He presumes that large B/M- value companies stocks are understanding a huge expected return than low B/M-value business companies (development stocks). Rosenberg et al (1985) and Chan et al (1991) demonstrated comparative proof of the determination of the worth impact on individually the US also, Japanese financial exchanges. Different scholastics express that the worth impact discovers its starting point in exogenous macroeconomic components since esteem stocks were managing financial downturns or negative outside stuns. Accordingly, incorporating worth stocks in a portfolio expands the danger of the portfolio since the presentation is less fortunate during monetary downturns as opposed to development stocks. Because of this additional peril, the examiner requires a higher foreseen return, the differentiation consequently among vlue stocks and improvement stocks was the vaue premium, (Petkova and Zhang, 2003).

In the opinion of Bhandari (1988) that positivel returns have connection with the Obligation to-Value proportion, likewise in the wake of controlling for showcase affectability and firm size. Subsequently, Obligation to-Value proportion was an extra variable to clarify expected returns and no intermediary for precise chance. Until the mid 1990's, the worth and size impact was just used to show that the market beta was not a proper standard to elaborate precise chance. In any case, Fama and French (1992) joined the CAPM, size and value impact in another model (FF3). They indicated that advertise affectability appears to have no logical incentive to

the normal returns, while size and value catch the cross-sectional variety in normal stock restores which was identified with influence.

Throughout the years, there had been a great deal of analysis by different scholastics and investigators on the two models referenced. Kothari et al (1995) noticeed that past B/M-value results utilizing information were influenced by a determination inclination and give round about proof. As a result, the connection among B/M-value proportions and returns was more fragile and less reliable as appeared in Fama-French (1992). In expansion, Soentjens (2012) contends that the exhibition of Fama-french three factor model compounds during monetary downslight which may demonstrate that the impact of HML and SMB reduces during financial downturns of clam or what brings down the estimation of FF3 factor model. Another clarificatios were that other illustrative factors than HML and SMB were getting progressively applicable during monetary downturns and accordingly the importance of HML and SMB diminishes during those periods. As a outcome, scientists were concentrating on new properties for default risk to investigate if there was a connection among stock returns and default risk during monetary downturns. Not with standing, those looks into were giving clashing outcomes.

Avramov et al.(2012) showed that the gainfulness of peculiarity establish exchanging procedures like value energy, income force, credit risk, scattering, particular unpredictability and capital speculation inconsistencies gets only from times of money related trouble. The elements of oddities could be identified with a sharp fall of advantage costs during times of money related trouble (Leftwich, et al 1992; Dichev & Piotroski, 2001). The inspiration of Avramov et al. to inspect money related misery is impressively -established by Fama and French (1993) who contend that the size and value elements intermediary for a valued trouble factor. On the other hand, Szilagyi et al (2008) contend that troubled firms have huge stacks on HML and SMB factors yet produce further down rather than more significant yields true to form. In any case, Titman and Daniel (1997) contend that the effect on stock returns were committed to the size and value qualities, not HML and SMB factor stacks.

Merton,(1974) found credit risk as an orderly risk in the Korean financial exchange which Fama-french three factor model couldn't clarify totally. All the more explicitly, they characterized the acknowledge factor as the arrival contrast between the arrangement of stocks with high and low credit risk. By then they attempted if this factor was totally explained by fama-french three factor model gave the idea that the credit factor makes a quantifiably basic alpha when it was backslid on fama-french three factor model which gathers that it got a deliberate possibility that FF3 factor model couldn't explain.

Vassalou and Xing contemplated the U.S. value market and they guarantee that default chance was estimated in value returns what's more, that the fama-french three factor model was a suitable option for default risk. In any case, Gharghori et al. were demonstrating negating results for the Australian advertise. What's more, to make it much all the more confounding, Anginer and Yildizhan (2010) were indicating bizarrely low returns for upset stocks in the U.S. corporate security promote ,by the end of day, default chance wasn't evaluated in value returns, albeit upset stock performed anomalous dependent on influence, instability and benefit. Those clashing results were emerging another inquiry; regardless of whether the estimating of default chance contrasts cross wise over value markets. A few examines with an alternate geological center are led to test the exhibition of CAPM and fama-french three factor model.

Bauer, Cosemans and Schotman (2010) contends the informative intensity of fama-french three factor asset pricing model is huge in Europe contrasted with the US. Likewise, they affirm that the size impact which evaporated in the US after its disclosure, is as yet pesence in Europe. Another European arranged examination is directed by Akgul (2013), in this investigation is the distinction among the fama-french three factor model prior and then afte rward the arrangement of the EMU researched. Akgul demonstrating that the fama-french three factor model was basic in eleven out of thirteen countries before the advancement of the EMU and seven out of ten countries give indications of progress results after the improvement of the EMU. Up until this point, a few examinations about credit chance are directed, too thinks about which tried asset pricing models with a European dataset. Be that as it may, no investigation can be discovered has utilized the Merton (1974) model to research if credit risk catches a precise chance in the French, Dutch and German financial exchange which CAPM and FF3 factor model could not clarify totally.

The idea of capital sufficiency was an after effect of reworking banks' current capital structures so as to rebuild the financial business against boundless trouble. Sufficient capital made an open door for better guidelines in any business foundation. It proded business effort and a superior execution. As indicated by Olalekan and Adeyinka (2013), the least proportion of funding to add up to chance weighted resources ought to stay at 10 percent as endorsed in round about BSD/11/2003 gave on 4 August 2003. Further, at any rate 50 percent of a bank's capital ought to include paid-up capital and stores, while each bank ought to keep up a proportion of at the very least 1:10 between its balanced capital assets and all out credit risk of arrangements. Thus, store cash banks in Nigeria were urged to keep up a more significant level of capital which was proportionate with their risk profiles.

Olalekan and Adeyinka (2013), The current definition of the constituents of capital, conclusions from absolute qualifying capital and confinements inside furthermore, between essential (Level 1) and beneficial (Level 2) capital were commonly steady with the Basel Accord. Level 2 capital was constrained to 100 percent of Level 1 capital. The general arrangement was a piece of Level 2 capital where a bank's particular arrangement for awful and far fetched obligations was made agreeable to CBN. In any case, such a general arrangement was limited to a limit of 1.25 percent of the risk weighted resources. Conceded charge resources were considered as exclusive resources for capital ampleness purposes and ought to be deducted from all out capital what's more, holds in landing at all out Level 1 capital. In light of the Basel Accord's degree of capital ampleness proportion as a satisfactory point of confinement, a store cash bank might be characterized into under- promoted; fundamentally under promoted; basically under-promoted; and bankrupt CBN additionally ordered that all banks ought to had themselves credit evaluated by a FICO assessment office and the FICO score must be done all the time, that was, the FICO score ought to be refreshed consistently from year to year, inside six months from the date of close of each money related year and the rating report total on the whole regards must be submitted to CBN. Further, banks ought to likewise revealed their FICO assessments conspicuously in their distributed yearly reports (CBN, 2010). The impact of capital sufficiency on banks' presentation can't be under-evaluated since sufficient capital legitimately

and naturally impacts the measure of assets accessible for advances, which perpetually influences the level and level of risk management practices.

It enabled banks to audit their risk the board frameworks (Olalekan and Adeyinka, 2013; Van Greuning and Bratanovic, 2009). As a reaction to the inadequacies in budgetary guidelines as uncovered by the money related emergency influencing the world since 2008, the Basel Gathering built up another Basel Accord, Basel III. This was a worldwide administrative standard on market liquidity risk and bank capital adequacy settled upon by BCBS individuals in 2010-11. Basel III likewise presents extra capital supports, an obligatory capital protection cradle of 2.5 percent and an optional counter-patterned cradle which enables national controllers to require up to another 2.5 percent of capital during times of high credit development. These measures hope to improve the banking sector's ability to hold paralyzes rising up out of cash related and budgetary weight whatever the source, improving risk the board and administration and fortifying banks' straightforwardness what's more, divulgences (BIS, 2010). Capital adequacy was a genuinely new region in store cash banks' risk the executives particularly in creating nations. In this examination, the foreseen salary hypothesis clarifies the hypothetical supporting as it identifies with banks' presentation. The hypothesis relies upon the credit portfolio as a liquidity source. Generally, banks' liquidity can be arranged whenever planned credit installments are in view of future livelihoods of borrowers at a point in time. In this way, the hypothesis perceives the impact of the development structure of the credit and speculation portfolio on the liquidity position of a bank. Like other comparative hypotheses, the foreseen salary hypothesis' significant imperfection is in portion credit reimbursements. Since portion credit reimbursements give a customary stream of liquidity, they may not be satisfactory for meeting unstructured crises as far as money prerequisites in the financial framework.

Bosede et al. (2013) opine that banks' administrations need to keep up some capital as pad to ingest vulnerabilities in the business condition. The 2008-09 budgetary emergency advanced this hypothesis and as nature turns out to be increasingly mind boggling the need to comprehend the fundamentals of this hypothesis was well-suited; the present study was based on this conviction. Goddard et al's. (2004) study on capital sufficiency as a determinant of benefit of banks uncovered that a high capital ampleness proportion ought to imply that a bank was

working overcautiously and overlooking possibly gainful exchanging openings inferring a negative connection between the value to resource proportion and a bank's exhibition. Then again, Pasiouras and Kosmidou (2007) show that keeps money with higher value to resource proportions would ordinarily had lower requirements for outer subsidizing and subsequently higher gainfulness. Concurring to them the exhibition of local and remote business banks in 15 EU nations during 1995-2001 were influenced by bank explicit qualities. Their discoveries propose that capital 4 ampleness, credit hazard, bank size and liquidity chance had a huge association with a bank's gainfulness, in spite of the fact that their effect and relations were not constantly uniform for local and outside banks. These blended and clashing outcomes are not restricted distinctly to this exploration.

George and Dimitrios (2004) applied the non-parametric expository strategy (information envelopment investigation, DEA) for estimating the exhibitions of the Greek financial segment as for capital ampleness. They demonstrate that the information envelopment examination can be utilized as either another option or as a supplement to a proportion investigation for the assessment of an organization's execution with thoughtfulness regarding macroeconomic markers. Different ponders recommend that manages an account with more significant levels of capital perform superior to anything their under-promoted peers. Staikouras and Wood (2004) guarantee that there exists a positive connection between more prominent value and benefit among EU banks. Abreu and Mendes (2001) likewise follow a positive effect of the value level on benefit. Goddard et al., (2004) bolster an earlier finding of a positive connection between the capital/resource proportion and a bank's profit. Nonetheless, the heading of the connection between bank capital and bank productivity couldn't be consistently anticipated ahead of time. In Nigeria, in any case, there was sparse writing accessible on capital ampleness with substantial accentuation on CBN's prudential rules.

Baqeri and Taherinia(2018) studied directly point out the results of capital adequacy to evaluate the ratio of bank reserves excepted in the Tehran stock exchange as well as it was established on Kashyap and stein Pattern(2004) and it made some changes in variables of Levintal research in (2005). During the phase of 2009 to 2013,the data which was essential from statistical population in which almost 16 exchange banks of iran has been stablished in this time

period. Through the outcomes of this study, a direct connection was observed among capital adequacy ratio and bank reserves considered an absorption rate in which numerous donor were viewed as dependent variable in banks. Furthermore, the understanding of control factors slant in assessed relationship demonstrated that there was a reverse relationship among pace of allowed offices and the size of bank with bank reserves. Along with this, there was a direct link among development openings and benefit instability. Understudy t-test for assessed coefficients and Fisher test for all out evaluated relationship bolstered the capacity to sum up connections among factors at 95% level. The coefficient of assurance demonstrated that somewhere in the range of 83.5% and 87/5% changes among free and control factors with bank saves through communicated assessed relationship and evaluated relationship among factors has had a genuinely complete illustrative power. The liquidity of banks based on bank reserves and the usage of these reserves can be to hand out opportunities, to absorb contributer and deliver the adevertisement to other banks. Additionally, if the pace of capital Adequacy, figuring by isolating the compensations of investors to the total of benefits, rises to 1 it implies banks are progressively subject to investors to back (Giannetti and Simonov, 2009). In the wake of contributing, financial specialists are attempting to lead their assets in a manner with the most minimal risk and the most noteworthy productivity; additionally they are attempting to put resources into manages an account with high business believability (Reinhart and Rogoff, 2009).

Levintal (2015) to decrease the capital adequacy ratio will become greater in the level of financial risk furthermore, depending more on remote money related assets. it could be expand the cash cost of company and the decrese the benefits of banks. In banking system, the judgement achievement can be completed through the usage of numerous methods .A portion of these looks into have been done dependent on process assessment techniques with the premise of a few strategies, for example, survey or inspecting and methodology and procedures utilizing in banks, the anticipated systems or as per the standard, were compared and examined. The second catagorization of this paper was organized on quanitative assessments. The quanitative assessment of performance was catagorized into some basis evaluating on valuable criteria such as gainfulness, proficiency, adequacy, chance, profitability, liquidity, and other comparable cases. Different divisions of quantitative evaluations can be clarified based on the disposition

utilized in evaluation. In view of the file of demeanor, execution of consolidating two or some bank data sources and yields, a few proportions, for example, gainfulness and liquidity, and so forth are characterized; just as for utilitarian information concerning the correlation of the exhibition of various banks or banking branches with one another or with the normal or past exhibition will be managed. In light of econometrics mentality among one of the exhibition criteria. As to the specific conditions that had represented the financial framework and their principle job after the understanding about evacuating financial authorizes on the nation, in light of econometric demeanor, this investigation has managed surveying the presentation of banks acknowledged in Iran stock exchange with liquidity, capital ampleness, and gainfulness. The present investigation that depends on the previously mentioned inquiries has been done to answer this principal question. What is the impact of the proportion of capital adequacy to the proportion of bank holds acknowledged in the Tehran stock exchange.

The consequences of the study exmined the growth of capital adequacy ratio ,the ratio of bank reserves will be increase in Tehran stock exchange. With the comparison of this study with kashyap and stein(2004)and levintal study demonstrated the consequences of this research and the current research were contrasting. on the observation of statistical analysis, the link between capital adequacy ratio and the rate of bank reserves shows that the decrease in money related risk level of banks in depending on financing from outer sources or contributing more than pay rates of investors, for example, expanding capital, less dispersion of benefit, resource change, etc could prompt increment the degree of holds and liquidity of banks and to establish the more opportunities to shareholders. Likewise, it very well may be finished up from contrasting banks that those banks and a more elevated level of dependence on financing from residential sources can expand liquidity and bank saves acknowledged in the Tehran stock exchange. By outlining the examination of suppositions, estimation and deciphering the after effects of formed straight relapse, approval and speculation of evaluated connections, it indicated that capital sufficiency rate (the possession proportion or financing and capital structure from investors) positively affected bank holds (the measure of fascination from different current, present moment and long haul stores of clients) in banks acknowledged in the Tehran stock exchange.

Olalekan and Adeyinka (2013) endeavored to research the impact of capital adequacy on Nigerian banks' exhibition. They analyzed the impact of capital adequacy on productivity of store taking banks in Nigeria by evaluating the impact of capital adequacy of both outside and local banks in the nation and their gainfulness. They gathered essential information by a poll including an example size of 518. The poll was dispersed to set up individuals from manages an account with a reaction pace of 76 for each penny. Their discoveries uncovered a non-huge connection among capital adequac and a bank's gainfulness. This infers for store taking banks in Nigeria, capital sufficiency did not assume a key job in deciding benefit. In spite of the fact that it was commonly concurred that CBN's prudential rules were affected significantly by the Basel Accord, so far just Ezike and Oke (2013) had explored the effect of the reception of capital adequacy measures on the execution of Nigerian banks.

The above literature indicated that there are very limited studies on risk management practices/factors in explaining stock returns especially in asset pricing domain. So, this study aims to test the impact of risk factors on stock returns in banking sectors of Pakistan and China. Moreover, this study also provide a way to contribute in diversification and portfolio management for today’s investors.

2.2 Research Hypothesis of Pakistani banks

On the basis of above theoretical framework of the study, several hypotheses can be developed.

H1: Market premium has significant relationship with stock return of Pakistani banks

H2: Size premium has significant relationship with stock return of Pakistani banks

H3: Value premium has significant relationship with stock return of Pakistani banks

H4: Liquidity premium has significant relationship with stock return of Pakistani banks

H5: Credit risk premium has significant relationship with stock return of Pakistani banks

H6: Capital adequacy has significant relationship with stock return of Pakistani banks

H7: Operational risk has significant relationship with stock return of Pakistani banks

2.3 Research Hypothesis of Chinese banks

H1: Market premium has significant relationship with stock return of Chinese banks

H2: Size premium has significant relationship with stock return of Chinese banks

H3: Value premium has significant relationship with stock return of Chinese banks

H4: Liquidity premium has significant relationship with stock return of Chinese banks

H5: Credit risk premium has significant relationship with stock return of Chinese banks

H6: Capital adequacy has significant relationship with stock return of Chinese banks

H7: Operational risk has significant relationship with stock return of Chinese banks

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Methodology:

Multivariate regression and Fama French proposed Seven factor model would be used for analysis. Moreover, 24 banks of Pakistan and 16 banks of China for the period of January 2008 to December 2017 on the bases of market capitalization are taken. The data for liquidity, capital adequacy ratio, operational risk, credit risk premium are taken from annual reports of banks. The data for Risk free rate of return from IFS Database and for index rate from yahoo finance. OSIRIS database is also used for getting annual reports.

3.2 Population and Sample:

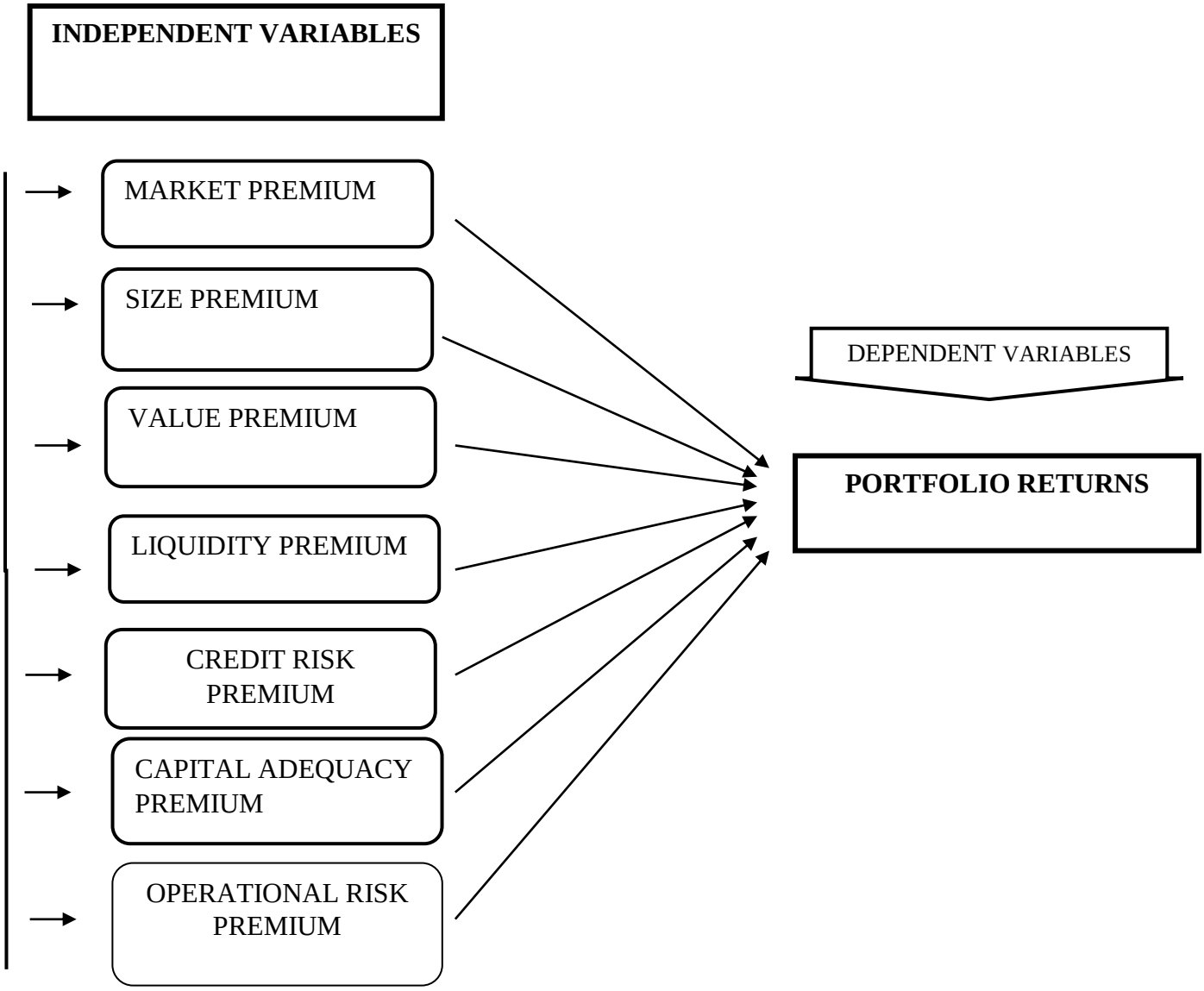
All the registered banks of Pakistan stock exchange and China (Shenzhen, Shanghai) stock exchange are Population of the current study on the basis of convenient sampling, the sample size is 24 banks of Pakistan and 16 banks of china on the basis of data availability for the period of January 2008 to December 2017. Fama- French and various other studied argued that sample size and time period is very important for the significant result. In this study the data of 10 years were taken. But the short sample size is due to data availability problem because most of the Chinese websites were locked and even Pakistani banks annual reports were also not available for all the years under studies.

3.3 Time period and Data:

This study is quantitative in nature, includes accounting and market data. The market data include market return, market capitalization and risk free rate study use the 3 month T- bill rate as a proxy of the risk free rate the closing share price of the last trading day of the month which is downloaded from International Financial Statistics (IFS) websites for Pakistan and

China. And accounting data about Credit risk premium, Liquidity premium, Capital adequacy ratio and Operational risk form the banks annual reports that banks publish at the end of December. Data is collected from Pakistan stock exchange and China (Shenzhen, Shanghai) stock exhange, business recorder website and OSIRIS database.

3.4 Conceptual Framework



3.5 Portfolio Construction of Pakistani Banks

- For size sorted portfolio, 24 banks can be further divided into 12 big and 12 small on the basis of market capitalization.
- Then small and big banks are further divided into 6 each as high value and low value.
- Further division is made on the basis of operational risk, liquidity premium, credit risk premium, capital adequacy ratio.
- The same process is repeated for 2008 to, 2017 and average returns have been calculated.

3.6 Portfolio Construction of Chinese Banks

- For size sorted portfolio, 16 banks can be further divided into 8 big and 8 small on the basis of market capitalization.
- Then small and big banks are further divided into 4 each as high value and low value.
- Further division is made on the basis of operational risk, liquidity premium, credit risk premium, capital adequacy ratio.
- The same process is repeated for 2008 to, 2017 and average returns have been calculated.

3.7 Variables Construction:

These variables are constructed by using Fama- French model.

Size Premium=

SMB=1/10*[(S/H+S/L+S/HL+S/LL+S/HNPL+S/LNPL+S/HC+S/LC+S/HOP+S/LOP)1/10-(B/H+B/L+B/HL+B/LL+B/HNPL+B/LNPL+B/HC+B/LC+B/HOP+B/LOP)1/10]

Value Premium= HML=1/10*[(S/H+B/H)1/2-(S/L+B/L)1/2=(S/H-S/L)1/2+(B/H-B/L)1/2]

LiquidityPremium=ILLQ=1/10*[(S/HL+B/HL)1/2-(S/LL+B/LL)1/2=(S/HL-S/LL)1/2+(B/HL-B/LL)1/2]

Credit risk Premium= NPL= 1/10*[(S/HNPL+B/HNPL)1/2-(S/LNPL+B/LNPL)1/2=(S/HNPL-S/LNPL)1/2+(B/HNPL-B/LNPL)1/2]

Capital adequacy ratio=CAR= 1/10*[(S/HC+B/HC)1/2-(S/LC+B/LC)1/2=(S/HC-S/LC)1/2+(B/HC-B/LC)1/2]

OperationalRisk=OP=1/10*[(S/HOP+B/HOP)1/2-(S/LOP+B/LOP)1/2=(S/HOP-S/LOP)1/2+(B/HOP-B/LOP)1/2]

3.8 Variables Description:

The table that are given below shows the detail of variable that are used in this research with there description and abbreviations.

Variable Description	Abbreviation	Description
Portfolio Return	RP_t	Excess portfolio return at time *t*
Market Premium	MKT_t	Difference among risk free rate of return and portfolio return *t*
Size	SMB_t	Difference among returns of small size banks and large size banks at time *t*
Book-to-market Ratio	HML_t	Difference among returns of high BV/MV and low BV/MV banks at time *t*
Liquidity Premium	LIQ_t	Difference among the returns of the banks having low Liquidity and the high Liquidity at time *t*.
Credit Risk Premium	NPL_t	Difference among the return of the banks having high NPL and the low NPL at time *t*

Capital Adequacy Ratio	CAR_t	Difference among return of the banks having low CAR and high CAR at time *t*
Operational Risk	OP_t	Difference among return of the banks having high OP and low OP at time *t*

3.9 Model Construction:

These seven factor model is proposed for empirical testing:

$RP_t - RF_t = \alpha + \beta 1 MKT_t + \beta 2 SMB_t + \beta 3 HML_t + \beta 4 LIQ_t + \beta 5 NPL_t + \beta 6 CAR_t + \beta 7 OP_t + \varepsilon t$

Where,

RP_t = the expected return of portfolio at time t

RF_t = risk free rate at time t

Rm_t = return of market at time t

SMB_t= difference among return of small size portfolio minus return of big size Portfolio at time t

HML_t= return of high BE/ME ratio portfolio minus return of low BE/ME ratio Portfolio at time t

LIQ_t = difference among return of bank having low Liquidity Minus return of bank having high Liquidity at time t

NPL_t=Difference among the return of bank having high non-performing loan and low non-performing loan at time *t*

CAR_t = Difference among the return of bank having low capital adequacy ratio and high capital adequacy ratio at time t

OP_t= Difference among the return of bank having high operational risk and low operational risk at time t

3.10 Variables Discussion:

Size, Value, and market premium are those factors which are discussed by the Fama & French in (1992) to explain the portfolio return. Current study include the Liquidity Premium, Credit risk premium, Capital adequacy ratio and operational risk with the augmented Fama and French seven factor assets pricing model to explain the portfolio expected return . Following proxies are used to measure the variables.

3.10.1 Market Premium

Market Premium is the difference among the risk free rate and the expected return on a market portfolio.

Market premium = Expected return on portfolio – Risk free rate

3.10.2 Size Premium:

Market capitalization is used for the measurement of the size premium.

Market capitalization = number of shares outstanding * per share price

3.10.3 Value Premium:

This premium is firstly used by the Fama & French in 1992 by using the HML. In the current study to measure the value premium Book to Market ratios are used. Value premium is the greater risk adjusted return of value stock over the growth stock. The book value of equity is

taken from accounting data and market capitalization of the firm is taken as market value of equity (Rosenberg, 1985; Fama & French, 1992).

Book to Market =Book value / Market value

3.10.4 Liquidity Risk Premium

Liquidity describes the degree to which an asset or security can be quickly bought or sold in the market without affecting the asset price. Market liquidity refers to the extent to which a market, such as a country's stock market or city's real estate market, allows assets to be bought and sold at stable prices. A liquidity risk premium is an additional return on bonds that are not actively traded. Illiquid bonds cannot be easily bought and sold at fair market value. To compensate investors for this lack of liquidity, illiquid bonds pay a premium. Brennan & Subrahmanyam (1996) propose relationship between price and order flows as a measure of liquidity. Pastor & Stambaugh (2003) suggest that return reversals capture inventory-based price pressures and liquidity can be gauged by the magnitude of return reversal upon high volume. The current study uses turnover ratio as a measure of liquidity of stock scaled by capitalization of the firm (Hassan & Javed, 2011). we are measuring Liquidity risk premium with Liquidity coverage ratio.

Liquidity coverage ratio =High Quality Liquid Assets/ Total Net cash flow

3.10.5 Credit Risk Premium

Credit risk premium is the return in excess of the risk free rate of return an investment is expected to yield ,an assets risk premium is a form of compensation for investors who tolerate the extra risk , compared to that of a risk free asset in a given investment. This excess return or credit risk premium on loans and bonds. Basically credit risk is described as the possibility that a bank borrower or counterparty will disregard to meet its obligations according to agreed term. we are measuring credit risk with non performing loans. We are taking data for non-performing loan from annual reports.

3.10.6 Capital Adequacy Ratio

Capital adequacy ratio (CAR) is a measure of banks available capital expressed as a percentage of banks risk-weighted credit exposures. The capital adequacy ratio, also known as capital-to-risk weighted assets ratio (CRAR), is used to protect depositors and promote the stability and efficiency of financial systems around the world. Generally, a bank with a high capital adequacy ratio is considered safe and likely to meet its financial obligations. In other words the capital adequacy ratio is the ratio of bank capital in relation to its risk weighted assets and current liabilities. It decided by central bank and bank regulators to prevent commercial banks from taking excess leverage and becoming insolvent in the process. We are taking data for capital adequacy ratio from annual reports.

3.10.7 Operational Risk

Operational risk is the prospect of loss resulting from inadequate systems or policies, failed procedures, System failures, Employee errors, Fraud or other criminal activity. Any event that disrupts business processes. We are measuring operational risk with operational risk ratio.

Operational Risk = Operating Expenses/ Operating Income

CHAPTER NO. 4

DATA ANALYSIS

4.1 Data Analysis

Descriptive statistics are utilized to showing characteristics of data, for example central tendency and dispersion. The descriptive statistics is given below:

Table 4.1 Descriptive Statistics of various factors:(Pak)

Descriptive Statistic

	Mean	Median	Max	Min	Std. Dev.	Skew	Kurt
S	-0.0112	0	0.33	-0.5047	0.1	-0.603	8.277
S_HC	-0.0083	0	0.17	-0.5124	0.088	-1.861	11.33
S_HL	-0.0073	0	0.2	-0.5647	0.09	-2.076	14.11
S_HNP	-0.0088	0	0.18	-0.4522	0.083	-1.224	8.787
S_HOP	-0.0108	0	0.22	-0.421	0.09	-0.69	5.98
S_HV	-0.009	-0.002	0.388	-0.4527	0.104	-0.066	6.603
S_LC	-0.0134	0	0.297	-0.5841	0.117	-0.987	8.049
S_LL	-0.0106	0	0.44	-0.4435	0.127	-0.283	5.871
S_LNP	-0.0054	0	0.203	-0.3848	0.08	-1.07	6.54
S_LOP	-0.0132	0	0.359	-0.6126	0.109	-1.383	10.73
S_LV	-0.0137	0	0.29	-0.5568	0.109	-1.015	8.344
B	0	0.0007	0.24	-0.5	0.09	-1.66	10.4
B_HC	0	0	0.27	-0.39	0.09	-0.58	5.7
B_HL	-0.006	0	0.25	-0.56	0.09	-1.43	11.9
B_HNP	-0.009	0	0.17	-0.51	0.08	-1.79	11.1
B_HOP	0.001	0	0.651	-0.54	0.112	0.504	15.74
B_HV	0	0	0.18	-0.64	0.09	-2.76	19.1

B_LC	-0.003	0	0.17	-0.53	0.09	-1.79	10.3
B_LL	-0.01	0	0.22	-0.448	0.089	-1.13	7.81
B_LNP	-0.008	0	0.263	-0.669	0.103	-2.424	16.94
B_LOP	-0.005	0	0.346	-0.446	0.096	-0.751	7.652
B_LV	0.002	0.002	0.17	-0.369	0.071	-0.96	7.13

Result shows that S/HC with mean 0.00831 and S.D is 0.088577 which is more effective than the S/LC. S/HC is low risk and high return portfolio as compare to the S/LC, S/HL has mean value 0.00729 with S.D is 0.090834 have less risk and more return as compare to the S/LL. S/HNP is the less risk and high return portfolio as compare to the S/LNP. S/HNP has mean value 0.00881 with S.D is 0.083442 are more effective as compare to S/LNP has M.V 0.00543 with stander deviation is 0.08772. S/HOP is less riky and high return portfolio as compare to the S/LOP has M.V 0.01322 with stander deviation is 0.10917 , S/LV has mean value 0.01366 with S.D is 0.109766 is less risk and high return portfolio as compare to the S/HV.

The outcomes of Skewness displays regarding distribution of data. In situation of usual distribution, skewness ought to nill , its conveys the meaning that figure is in bell shaped diagrame and in the form of line however, for actual world data, the zero skeness is completely doubtful. The data is skewed optimistically If skewness is effective otherwise the figure is skewed at accurate which means the actual tail as it is extensively lengthy than its left side. The skewness is dismissive at this situation which means the figure is pessimistically skewed which signifies left tail is lengthy than right.

The results of Skewness are negative of S (-0.60364), S/HC (-1.86182), S/HL(-2.07645), S/HNP(-1.22491), S/HOP(-0.69422), S/HV(-0.06696), S/LC(-0.987), S/LL(0.28357), S/LNP(-1.07243), S/LOP(-1.38303), S/LV(-1.08815)) “such as all the small portfolio have the negative skewness.

In the comparison of normal distribution, Kurtosis elaborates that the comparative peakness or flatness regarding data distribution. Approximetely, common distribution of kurtosis has 3 kurtosis in which kurtosis is less than 3 which appears that figure is to flat. Comparitively the distribution of data is or higher than 3 in kutosis which means it is too tall and for all types of portfolio the consequences of kurtosis explained regarding the distribution of data which is comparitevely peaked.

Result shows that B/HC with mean 0.00702 and standard deviation is 0.093313 which is more effective than the B/LC. B/HC is low risk and high return portfolio as compare to the B/LC, B/HL Mean value has 0.00601 standard deviation is 0.095664 have less risk and more return as compare to the B/LL. B/HNP is the less risk and high return portfolio as compare to the B/LNP. B/HNP has mean value 0.00907 S.D is 0.089154 are effective as compare to B/LNP has M.V 0.00846 S.D is 0.103174. B/HOP is less risk and high return portfolio as compare to the B/LOP has M.V 0.00557 with stander deviation is 0.096866 , B/HV has mean value 0.00511 with S.D is 0.094331 is less risk and high return portfolio as compare to the B/LV.

The outcomes of Skewness displays regarding distribution of data. In situation of usual distribution, skewness ought to nill , its conveys the meaning that figure is in bell shaped diagrame and in the form of line however, for actual world data,the zero skeness is completely doubtful. The data is skewed optimisticall If skewness is effective otherwise the figure is skewed at accurate which means the actual tail as it is extensively lengthy than its left side. The skewness is dismissive at this situation which means the figure is pessimistically skewed which signifies left tail is lengthy than right.

Skewness result are negative of B (-1.66395), B/HC (-0.58004), B/HL(-1.43763), B/HNP(-1.79512), B/HOP(-0.504743), B/HV(-2.76473), B/LC(-1.79359), B/LL(-1.13092), B/LNP(-2.42414), B/LOP(-0.7513), B/LV(-0.96237)) such as all the small portfolio have the negative skewness.

In the comparison of normal distribution, Kurtosis elaborates that the comparative peakness or flatness regarding data distribution. Approximetely, common distribution of kurtosis has 3 kurtosis in which kurtosis is less than 3 which appears that figure is to flat.Comparitively

the distribution of data is or higher than 3 in kutosis which means it is too tall and for all types of portfolio the consequences of kurtosis explained regarding the distribution of data which is comparitevely peaked.

Table 4.2 (a) Descriptive statistics: Fama- French Factors.(Pakistan)

Descriptive Statistic

	Mean	Median	Max	Min	Std. Dev.	Skew	Kurt
MKT	-0.0034	-0.0098	0.16977	-0.458	0.06742	-2.8846	19.9975
SMB	-0.0027	-0.0024	0.19715	-0.1243	0.04143	0.79806	7.30805
HML	-0.0016	0	0.12796	-0.0986	0.04191	0.35668	3.7
LIQ	0.0041	0	0.15294	-0.2342	0.05314	-0.7034	6.92003
CAR	0.00067	0	0.19463	-0.1086	0.04698	0.74316	5.29114
NPL	-0.002	0	0.11683	-0.1011	0.03443	0.16481	4.68481
OP	0.00483	0	0.31888	-0.1764	0.05913	1.24297	9.45783

These table that shows the results of all variables includes Market, size, Liquidity premium, value, credit risk premium, capital adequacy ratio and operational risk. Mean of Size premium -0.00266 S.D of 0.041425. Market premium has Mean -0.0034 with S.D of 0.067418. Mean of value premium is -0.00162 with S.D of 0.041907. Liquidity premium has mean 0.004104 with S.D of 0.053138. M.V of Credit risk premium is -0.00198 and S.D is 0.034429. Capital adequacy ratio has mean is 0.000674 with S.D 0.046982. Operational risk has mean 0.004825 with S.D 0.059134. Results show value premium, size premium, credit risk premium, Market premium are negative and results of other two variable Liquidity premium and operational risk are positive.

Maximum value for Size premium 0.197152, Market premium 0.169767, Value premium 0.127956, Liquidity premium 0.152943, Credit risk premium 0.116827, Capital adequacy ratio 0.194629, Operational risk 0.318875 showing that maximum demand by investors for taking risk. While minimum premium demand by investors for" market premium -0.457946, Size

premium -0.124332, Value premium -0.098549, credit risk premium -0.101056, Liquidity premium -0.234189, capital adequacy ratio -0.108578, Operational risk -0.176345.

Skewness is negative for MKT -2.884621, Liquidity premium0 -703431, Positive for Size premium 0.798064, Value premium 0.356676, credit risk premium 0.164807,Capital adequacy ratio 0.743163, Operational risk 1.242973. Kurtosis are positive for all factors , Value premium, Liquidity premium, Size premium, credit risk premium, Market premium, Capital adequacy ratio, operational risk.

Table 4.2 (b) Descriptive statistics: Fama- French Factors.(China)

Descriptive Statistic

	Mean	Median	Max	Min	Std. Dev.	Skew	Kurt
MKT	0.00441	0.01703	0.18677	-0.2725	0.09214	-0.7769	3.9722
SMB	-0.0008	0.00212	0.15954	-0.1634	0.04458	-0.3448	6.37887
HML	-0.001	0	0.60274	-0.9248	0.14712	-1.4649	19.9941
LIQ	0.00038	0	0.72196	-0.7272	0.17015	-0.052	13.1232
CAR	0.00281	0	0.60528	-0.9152	0.16173	-1.3724	15.3521
NPL	-0.0017	0	0.91479	-0.6085	0.16189	1.20425	15.4792
OP	0.00092	0	0.90305	-0.5967	0.16059	1.30332	15.3232

These table that shows the results of all variables includes size, Liquidity, Market , credit risk premium, value, capital adequacy ratio and operational risk. M.V of size premium -0.000822 S.D of 0.044579. Market premium has mean of -0.004409 with S.D of 0.092138. Mean of value premium is -0.000986 with S.D of 0.14712. Liquidity premium has mean of 0.000378 S.D of 0.170147. Mean of credit risk premium is -0.001676 with S.D of 0.161892. Capital adequacy ratio has mean 0.002811 with S.D of 0.161731. Operational risk has mean of 0.000922 S.D of 0.160589. Results show that value premium, size premium, credit risk premium, Market premium , are negative and results of other three variable Liquidity premium, Capital adequacy ratio and operational risk are positive.

Maximum value for Size premium 0.159539, Market premium 0.186774, Value premium 0.602742, Liquidity premium 0.721957, Credit risk premium 0.91479, Capital adequacy ratio 0.605279, Operational risk 0.903052 showing that maximum demand by investors for taking risk. While minimum premium demand by investors for market premium -0.27254, Size premium -0.16339, Value premium -0.92483, credit risk premium -0.60845, Liquidity premium -0.72716, capital adequacy ratio -0.91524, Operational risk -0.59669.

Skewness is negative for Market premium -0.77692, Size premium -0.34484, Value premium -1.46488 , Liquidity premium -0.05204 and Capital adequacy ratio -1.37244, Positive for credit risk premium 1.204253, Operational risk 1.303318. Kurtosis are positive for all factors , Value premium, Market premium, Size premium, Liquidity premium, credit risk premium, Capital adequacy ratio, operational risk.

Table 4.3 (a) Correlation Matrix (Pakistan)

Correlation Matrix

	MKT	**SMB**	**HML**	**LIQ**	**CAR**	**NPL**	**OP**
MKT	1	0.13823	0.12534	-0.0786	-0.1816	-0.1659	-0.1307
SMB	0.13823	1	-0.2031	-0.497	-0.2809	-0.2268	-0.2822
HML	0.12534	-0.2031	1	0.21378	0.18506	0.14183	0.19829
LIQ	-0.0786	-0.497	0.21378	1	0.16336	0.23621	0.09132
CAR	-0.1816	-0.2809	0.18506	0.16336	1	0.14004	0.05069
NPL	-0.1659	-0.2268	0.14183	0.23621	0.14004	1	0.14983
OP	-0.1307	-0.2822	0.19829	0.09132	0.05069	0.14983	1

The result of Pakistani data shows that there correlation is positive among MKT and SMB 0.13823,HML 0.125342 but negative correlation among MKT and LIQ -0.07861, CAR -0.18164, NPL -0.16589, OP -0.13065. The COR among with SMB, HML, MKT is positive. But SMB COR with LIQ, CAR, NPL, OP is negative. COR of MKT with HML, SMB is positive, HML have negative COR with LIQ, CAR, NPL and OP. The COR result of LIQ is negative

with MKT, SMB, HML but positive with CAR, NPL and OP. The results of correlation of CAR with SMB, MKT, HML is positive but negative with LIQ, NPL and OP. The results of COR of NPL is negative with MKT, SMB, HML but positive with LIQ, CAR and OP. The results of COR of OP, that shows OP have negative COR with the MKT, HML, SMB, but have the positive COR with the LIQ, CAR and NPL. Most of the COR are negative so diversification benefits can be achieved

Table 4.3(b) Correlation Matrix (China)

Correlation Matrix

	MKT	**SMB**	**HML**	**LIQ**	**CAR**	**NPL**	**OP**
MKT	1	0.29967	-0.1088	0.08567	0.01117	0.00818	0.19504
SMB	0.29967	1	-0.3372	-0.242	-0.023	-0.2627	0.12564
HML	-0.1088	-0.3372	1	0.05258	0.35796	-0.1782	-0.6628
LIQ	0.08567	-0.242	0.05258	1	-0.6146	0.80202	0.2831
CAR	0.01117	-0.023	0.35796	-0.6146	1	-0.7734	-0.3192
NPL	0.00818	-0.2627	-0.1782	0.80202	-0.7734	1	0.53392
OP	0.19504	0.12564	-0.6628	0.2831	-0.3192	0.53392	1

The result of china data shows that there correlation is positive among the SMB and MKT, LIQ, CAR, NPL, OP but negative correlation between HML and MKT. The correlation among the MKT with LIQ, SMB, CAR, NPL and OP is positive. “But SMB correlation with the HML is negative”. COR of SMB with MKT, HML, LIQ, CAR, NPL and OP is negative. The correlation result of LIQ is positive with MKT, SMB, CAR, NPL and OP, but negative with the HML. The results of correlation of CAR with SMB, MKT, LIQ, NPL and OP is positive but negative with HML. The results of correlation of NPL is negative with HML but positive with MKT, SMB, LIQ, CAR and OP. The results of COR of OP shows that OP have negative COR with the HML but have the positive COR with the SMB, , LIQ, CAR, NPL, MKT. Most of the correlations are negative so diversification benefits can be achieved

Multivariate Regression (Seven factor model)

In this study, we are checking the impact of risk management practices (Liquidity Premium, Credit Risk Premium, Capital Adequacy Ratio and Operational Risk , size, market and value premium) on stock returns of pakistanies and Chinese banks. On the basis of Fama and French we use a Seven-factor model to explain the effect of size premium (market capitalization), value premium (book to market ratio), credit risk premium (Non-Performing Loan), Liquidity risk premium (Liquidity Coverage ratio), Capital adequacy ratio(CAR), Operational Risk (operational risk ratio). In the result t value and significance value show the magnitude of line where it is laid on axis. P value and t- value explain the effect of individual variable. R square indicated how much independent variable explain the change in dependent variable. The adjusted R square shows the adjustment or modification of other predictors in the model. F significance shows the fitness of overall hypothesis and takes the account for null hypothesis. If F sig value is greater than .05 than model is fit to explain the relationships among variables. In the below table we are explaining Multivariate regression separately of Pakistani and Chinese data.

Table 4.4 Multivariate Regression (Pakistan)

Dependent Variable: Portfolio P

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1088	0.8843	0.3784
SMB	-0.4378	-1.8717	0.0639
HML	-0.1741	-0.8621	0.3905
LIQP	-0.1001	-0.5766	0.5654
NPL	0.0868	0.3604	0.7192
CAR	0.1265	0.7029	0.4835
OP	-0.175	-1.2323	0.22
Adjusted R-square	0.0035		
F-Stat	0.9402		

When P is regress with LIQ, NPL, MKT, SIZE, VALUE Premium, CAR and OP. The VALUE, MKT, LIQ, NPL premium, OP, CAR are insignificant. But the SIZE is negative significant. Adjusted R square is 0.0035 that shows 0.35% changes is being made by the all independent variables

Table 4.4.1 Multivariate Regression (Pak)

Dependent Variable: Portfolio B

Variables	Coefficient	T-Statistic	Prob.
MKT	0.091271	0.692566	0.49
SMB	-0.3764	-1.5025	0.1358
HML	-0.3045	-1.407	0.1622
LIQP	-0.1376	-0.7396	0.4611
NPL	0.101198	0.392264	0.6956
CAR	0.126349	0.655046	0.5138
OP	-0.1063	-0.6991	0.4859
Adjusted R-square	0.0149		
F-Stat	0.752		

When B is regress along with VALUE, LIQ, SIZE, MKT, NPL Premium, CAR and OP. the VALUE, MKT , LIQ, SIZE, NPL premium and CAR , OP found insignificant . Adjusted R^2 is 0.0149 that shows 1.49% change is being made by all IV.

Table 4.4.2 Multivariate Regression (Pak)

Dependent Variable: Portfolio B_HC

Variables	Coefficient	T-Statistic	Prob.
MKT	0.113558	0.852485	0.3958
SMB	-0.6239	-2.4635	0.0153
HML	-0.3	-1.3715	0.173
LIQP	-0.0181	-0.0962	0.9235
NPL	-0.0274	-0.1051	0.9164

CAR	-0.0906	-0.4649	0.6429
OP	0.0241	0.1567	0.8757
Adjusted R-square	0.01751		
F-Stat	1.3004		

when B_HC is regress with the VALUE, LIQ, NPL, SIZE, CAR, MKT, OP. the VALUE, MKT, LIQ, NPL, CAR and OP found insignificant but SIZE is negative significant. Adjusted R^2 is 0.01751 that shows 1.751% change is being made by all IV.

Table 4.4.3 Multivariate Regression (Pak)

Dependent Variable: Portfolio B_HL

Variables	Coefficient	T-Statistic	Prob.
MKT	-0.00584	-0.655	0.5138
SMB	0.122101	0.883724	0.3788
HML	-0.3155	-1.2012	0.2322
LIQP	-0.3898	-1.7181	0.0886
NPL	-0.2275	-1.1663	0.246
CAR	-0.0386	-0.1427	0.8867
OP	-0.0174	-0.086	0.9316
Adjusted R-square	0.0056		
F-Stat	0.904		

When B_HL is regress , with VALUE, LIQ, NPL, MKT, SIZE , Premium, CAR and OP. the MKT, SIZE, NPL premium and CAR , OP found insignificant but LIQP is negative significant. Adjusted R^2 is 0.00569 that shows 0.569% change is being made by all IV.

Table 4.4.4 Multivariate Regression (Pak)

Dependent Variable: Portfolio B_HNP

Variables	Coefficient	T-Statistic	Prob.

MKT	0.0848	0.6600	0.5106
SMB	-0.5026	-2.0559	0.0421
HML	-0.1744	-0.8261	0.4105
LIQP	-0.1591	-0.8764	0.3827
NPL	-0.056	-0.2227	0.8241
CAR	0.1624	0.8629	0.39
OP	-0.1323	-0.8917	0.3745
Adjusted R-square	0.003		
F-Stat	0.9490		

When B_HNP is regress with VALUE, LIQ, MKT, NPL, SIZE, Premium, CAR and OP. the Value, MKT , LIQ, NPL premium and CAR and OP found insignificant but SIZE Premium is negative significant. Adjusted R^2 is 0.00303 that shows 0.303% change is being made by all IV.

Table 4.4.5 Multivariate Regression (Pak)

Dependent Variable: Portfolio B_HOP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1	0.62	0.53
SMB	0.36	1.19	0.23
HML	-0.49	-1.87	0.06
LIQP	-0.13	-0.58	0.56
NPL	0.22	0.717	0.474
CAR	0.313	1.331	0.1859
OP	0.227	-1.22	0.22
Adjusted R-square	0.014		
F-Stat	1.242		

When B_H0P is regress , with VALUE, MKT, LIQ, NPL, SIZE , Premium, CAR and OP. the MKT , LIQ, SIZE, NPL premium and CAR and OP found insignificant but VALUE Premium is negative significant. Adjusted R^2 is 0.014153 that shows 1.42% change is being made by all IV.

Table 4.4.6 Multivariate Regression (Pak)

Dependent Variable: Portfolio B_HV

Variables	Coefficient	T-Statistic	Prob.
MKT	0.0977	0.7107	0.4787
SMB	0.0713	0.2728	0.755
HML	-0.3051	-1.3513	0.1793
LIQP	-0.1589	-0.8185	0.4148
NPL	0.0242	0.0899	0.9285
CAR	0.1947	0.9675	0.3354
OP	0.1036	0.6531	0.515
Adjusted R-square	0.0243		
F-Stat	0.5989		

When B_HV is regress , with VALUE, LIQ, MKT, NPL, SIZE, Premium, CAR and OP. the VALUE, MKT, SIZE , LIQ, NPL premium and CAR and OP found , insignificant. Adjusted R^2 is 0.02437 that shows 2.44% change is , being made by all IV.

Table 4.4.7 Multivariate Regression (Pak)

Dependent Variable: Portfolio B_LC

Variables	Coefficient	T-Statistic	Prob.
MKT	0.063	0.469	0.639
SMB	0.37	-1.44	0.15

HML	-0.26	-1.19	0.233
LIQP	-0.27	-1.45	0.148
NPL	0.147	0.555	0.57
CAR	0.171	0.863	0.389
OP	0.2	-1.3	0.194
Adjusted R-square	0.00092		
F-Stat	1.01		

When B_LC is regress with the VALUE, MKT, LIQ, NPL SIZE Premium, CAR and OP. the VALUE , MKT, SIZE, LIQ, NPL premium and CAR and OP found insignificant. Adjusted R^2 is 0.00092 that shows 0.092 % change is being made by the all independent variables

Table 4.4.8 Multivariate Regression (Pak)

Dependent Variable: Portfolio B_LL

Variable	Coefficient	T-Statistic	Prob.
MKT	0.04	0.3156	0.7529
SMB	-0.4758	-1.9508	0.0536
HML	-0.0614	-0.2916	0.7711
LIQP	-0.0674	-0.3725	0.7102
NPL	0.0502	0.2001	0.8418
CAR	0.1145	0.6101	0.543
OP	-0.3288	-2.22	0.0284
Adjusted R-square	0.0151		
F-Stat	1.2590		

When B_LL is regress with VALUE, LIQ, MKT, NPL, SIZE, Premium, CAR and OP. the VALUE, MKT, LIQ, NPL premium and CAR found insignificant but SIZE, OP is negative significant. Adjusted R^2 is 0.015134 that shows 1.5134% change is being made by all IV.

Table 4.4.9 Multivariate Regression (Pak)

Dependent Variable: Portfolio B_LNP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1544	1.0318	0.3044
SMB	-0.1403	-0.4932	0.6228
HML	-0.1937	-0.7879	0.4324
LIQP	0.0362	0.1714	0.8642
NPL	0.3909	1.3343	0.1848
CAR	0.2088	0.9532	0.3426
OP	-0.164	-0.9494	0.3445
Adjusted R-square	0.0147		
F-Stat	0.7548		

When B_LNP is regress with the VALUE, MKT, LIQ, NPL, SIZE Premium, CAR and OP. the VALUE, MKT, SIZE, LIQ, NPL premium, CAR and OP found insignificant. Adjusted R^2 is 0.01476 that shows 1.476 % change is being made by the all independent variables

Table 4.4.10 Multivariate Regression (Pak)

Dependent Variable: Portfolio B_LOP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1633	1.1625	0.2475
SMB	-0.4615	-1.728	0.0868
HML	-0.1234	-0.535	0.5937
LIQP	-0.1386	-0.6992	0.4859
NPL	0.0277	0.1009	0.9198

CAR	0.1346	0.6551	0.5138
OP	-0.1476	-0.9103	0.3646
Adjusted R-square	0.0139		
F-Stat	0.7687		

When B_LOP is regress with VALUE, LIQ, MKT, NPL , SIZE Premium, CAR and OP. VALUE, MKT, LIQ, NPL premium and CAR , OP found insignificant but SIZE is negative significant. Adjusted R2 is 0.0139 that shows1.39% change is being made by all IV.

Table 4.4.11 Multivariate Regression (Pak)

Dependent Variable: Portfolio B_LV

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1198	1.0518	0.2951
SMB	-0.1145	-0.5289	0.5979
HML	-0.019	-0.1019	0.9189
LIQP	-0.1431	-0.8902	0.3752
NPL	0.0711	0.3192	0.7501
CAR	0.1539	0.9235	0.3577
OP	-0.0315	-0.2399	0.8108
Adjusted R-square	0.0378		
F-Stat	0.3849		

When B_LV is regress with VALUE, LIQ, NPL, MKT, SIZEM Premium, CAR and OP. the VALUE, MKT, SIZE, LIQ, NPL premium, CAR and OP found insignificant. Adjusted R^2 is 0.03787 that shows 3.787% change is being made by all IV.

Table 4.4.12 Multivariate Regression (Pak)

Dependent Variable: Portfolio S

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1	0.6910	0.491
SMB	-0.5786	-2.1014	0.0379
HML	-0.0681	-0.2867	0.7748
LIQP	-0.0245	-0.1199	0.9048
NPL	0.1206	0.4256	0.6712
CAR	0.0396	0.1870	0.8519
OP	-0.2395	-1.4332	0.1546
Adjusted R-square	0.0033		
F-Stat	1.0560		

When S is regress with VALUE, LIQ, NPL, MKT, SIZE Premium, CAR and OP. VALUE, MKT , LIQ, NPL premium and CAR , OP found insignificant but SIZE is negative significant. Adjusted R^2 is 0.003314 that shows 0.3314% change is being made by all IV.

Table 4.4.13Multivariate Regression (Pak)

Dependent Variable: Portfolio S_HC

Variables	Coefficient	T-Statistic	Prob.
MKT	0.0104	0.0811	0.9355
SMB	-0.354	-1.4428	0.1519
HML	-0.0984	-0.4642	0.6434
LIQP	-0.1418	-0.7784	0.438
NPL	0.0077	0.0307	0.9755
CAR	0.1274	0.6746	0.5013
OP	-0.1911	-1.2829	0.2022

Adjusted R-square	0.0236
F-Stat	0.6105

When S_HC is regress with the VALUE, LIQ, MKT, NPL, SIZE Premium, CAR and OP. the VALUE, MKT, SIZE , LIQ, NPL premium, CAR and OP found insignificant. Adjusted R^2 is 0.02365 that shows 2.365% change is being made by the all independent variables

Table 4.4.14Multivariate Regression (Pak)

Dependent Variable: Portfolio S_HL

Variables	Coefficient	T-Statistic	Prob.
MKT	0.0738	0.5642	0.5737
SMB	-0.4969	-1.9982	0.0481
HML	-0.0087	-0.0405	0.9677
LIQP	-0.1807	-0.9787	0.3298
NPL	0.0803	0.3139	0.7542
CAR	0.1933	1.0101	0.3146
OP	-0.1781	-1.1796	0.2407
Adjusted R-square	0.0004		
F-Stat	1.0067		

When S_HL is regress with VALUE, SIZE, LIQ, MKT, NPL Premium, CAR and OP. VALUE, MKT, LIQ, NPL premium and CAR , OP found insignificant but SIZE is negative significant. Adjusted R^2 is 0.000401 that shows 0.0401% change is being made by the all independent variables

Table 4.4.15 Multivariate Regression (Pak)

Dependent Variable: Portfolio S_HNP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.0764	0.63825	0.5246
SMB	-0.5015	-2.2009	0.0298
HML	-0.1861	-0.9459	0.3462
LIQP	-0.117	-0.6916	0.4906
NPL	0.0224	0.0957	0.9239
CAR	0.1267	0.7227	0.4713
OP	-0.1661	-1.2006	0.2324
Adjusted R-square	0.0055		
F-Stat	1.0936		

When S_HNP is regress with the VALUE, SIZE, LIQ, MKT, NPL Premium, CAR and OP. the VALUE, MKT, LIQ, NPL premium and CAR , OP found insignificant but SIZE is negative significant. Adjusted R^2 is 0.005522 that shows that 0.0552% change is being made by the all independent variables

Table 4.4.16 Multivariate Regression (Pak)

Dependent Variable: Portfolio S_HOP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.105	0.799	0.4259
SMB	-0.476	-1.896	0.0605
HML	-0.127	-0.589	0.5568
LIQP	-0.112	-0.602	0.5479
NPL	-0.079	-0.308	0.7586
CAR	-0.093	-0.486	0.6279
OP	-0.068	-0.448	0.6543

Adjusted R-square	0.02
F-Stat	0.641

When S_HOP is regress with the VALUE, MKT, LIQ, NPL, SIZE Premium, CAR and OP. the VALUE, LIQ, NPL, MKT premium and CAR , OP found insignificant but SIZE is negative significant. Adjusted R^2 is 0.02176 that shows that 2.176% change is being made by the all independent variables

Table 4.4.17 Multivariate Regression (Pak)

Dependent Variable: Portfolio S_HV

Variables	Coefficient	T-Statistic	Prob.
MKT	0.093	0.6309	0.5294
SMB	-0.731	-2.6028	0.0105
HML	-0.238	-0.9807	0.3289
LIQP	-0.082	-0.394	0.5938
NPL	0.28	0.967	0.3353
CAR	-0.024	-0.112	0.9105
OP	-0.217	-1.276	0.2043
Adjusted R-square	0.027		
F-Stat	1.4751		

When S_HV is regress with the VALUE, SIZE, LIQ, MKT, NPL Premium, CAR and OP. the VALUE, MKT, LIQ, NPL premium and CAR , OP found insignificant but SIZE is negative significant. Adjusted R^2 is 0.027413 that shows 2.7413% change is being made by the all independent variable

Table 4.4.18 Multivariate Regression (Pak)

Dependent Variable: Portfolio S_LC

Variables	Coefficient	T-Statistic	Prob.
MKT	0.2237	1.3462	0.181
SMB	-0.506	-1.602	0.1119
HML	-0.1805	-0.6615	0.5096
LIQP	0.0212	0.0905	0.928
NPL	0.1037	0.3189	0.7504
CAR	0.2946	1.211	0.2284
OP	-0.399	-2.08	0.0397
Adjusted R-square	0.0320		
F-Stat	1.5587		

When S_LC is regress with the VALUE, SIZE, LIQ, MKT, NPL Premium, CAR and OP. the SISE, VALUE, MKT, LIQ, NPL premium and CAR found insignificant but OP is negative significant. Adjusted R^2 is 0.032081 that shows 3.2081% change is being made by all IV.

Table 4.4.19 Multivariate Regression (Pak)

Dependent Variable: Portfolio S_LL

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1805	0.9986	0.3201
SMB	-0.7007	-2.038	0.0438
HML	-0.3013	-1.014	0.3123
LIQP	0.0333	0.1307	0.8962
NPL	0.2327	0.6578	0.512
CAR	0.2719	1.028	0.3062
OP	-0.3346	-1.603	0.1117

Adjusted R-square	0.0330
F-Stat	1.5770

When S_LL is regress with VALUE, LIQ, NPL, MKT, SIZE ,Premium, CAR and OP. VALUE, LIQ, NPL, MKT premium and CAR, OP found insignificant but SIZE is negative significant. Adjusted R^2 is 0.033099 that shows 3.3099% change is being made by all IV.

Table 4.4.20 Multivariate Regression (Pak)

Dependent Variable: Portfolio S_LNP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1382	1.1074	0.2705
SMB	-0.548	-2.311	0.0227
HML	-0.011	-0.056	0.9549
LIQP	-0.78	-1.014	0.3127
NPL	0.1036	0.4242	0.6722
CAR	0.1547	0.8471	0.3987
OP	-0.525	-1.7525	0.0824
Adjusted R-square	0.0241		
F-Stat	1.4166		

When S_LNP is regress , with VALUE, SIZE, LIQ, MKT, NPL Premium, CAR and OP. the VALUE, MKT, LIQ, NPL premium and CAR found insignificant but SIZE, OP is negative significant. Adjusted R^2 is 0.02412 that shows 2.412% change is being made by the all independent variables

Table 4.4.21 Multivariate Regression (Pak)

Dependent Variable: Portfolio S_LOP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1383	0.8844	0.3784
SMB	-0.6246	-2.1004	0.038

HML	-0.0928	-0.3614	0.7185
LIQP	-0.0351	-0.1589	0.874
NPL	0.1383	0.4519	0.6522
CAR	0.1238	0.5409	0.5897
OP	-0.264	-1.4624	0.1464
Adjusted R-square	0.0103		
F-Stat	1.2103		

When S_LOP is regress with VALUE, LIQ, MKT, NPL, SIZE, Premium, CAR and OP. the VALUE, LIQ, NPL, premium and MKT, CAR , OP found insignificant but SIZE is negative significant. Adjusted R^2 is 0.010369 that shows 1.0369% change is being made by all IV.

Table 4.4.22 Multivariate Regression (Pak)

Dependent Variable: Portfolio S_LV

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1007	0.6336	0.5276
SMB	-0.4381	-1.4497	0.1499
HML	0.1158	0.4438	0.658
LIQP	0.0396	0.1764	0.8603
NPL	-0.017	-0.0551	0.9561
CAR	0.099	0.4259	0.671
OP	-0.2607	-1.42	0.1581
Adjusted R-square	-0.0111		
F-Stat	0.8142		

When S_LV is regress with the VALUE, MKT, SIZE, LIQ, NPL Premium, CAR and OP. the VALUE, MKT, SIZE, LIQ, NPL premium, CAR and OP found insignificant. Adjusted R^2 is 0.01114 that shows 1.114% change is being made by the all independent variables

Table 4.5 Multivariate Regression (China)

Dependent Variable: Portfolio P

Variables	Coefficient	T-Statistic	Prob.
MKT	-0.0567	-0.6038	0.5472
SMB	-0.1375	-0.6072	0.5449
HML	0.1293	1.2921	0.199
LIQP	-0.0149	-0.1781	0.8589
NPL	-0.2203	-1.4419	0.1521
CAR	-0.1928	-1.7222	0.0878
OP	0.0634	0.6032	0.5476
Adjusted R-square			
F-Stat	0.0003		
	0.9937		

When P is regress ,with VALUE, LIQ, MKT, NPL, SIZE, Premium, CAR and OP. VALUE, MKT, SIZE , LIQ, NPL premium and OP found insignificant but CAR is negative significant. Adjusted R^2 is 0.00037 that shows 0.037% change is being made by all IV.

Table 4.5.1 Multivariate Regression (China)

Dependent Variable: Portfolio B

Variable	Coefficient	T-Statistic	Prob.
MKT	0.2504	3.3444	0.0011
SMB	0.8118	4.4543	0.003
HML	0.2816	3.4892	0.0007
LIQP	0.4233	6.2591	0.001
NPL	0.2926	2.3738	0.0193
CAR	-0.0453	-0.503	0.7046
OP	0.0322	0.38	0.7046

Adjusted R-square	0.7549
F-Stat	0.3837

When B is regress with VALUE, SIZE, LIQ, NPL MKT, Premium, CAR and OP. CAR and OP found insignificant but VALUE, MKT, SIZE , LIQ, NPL premium is positive significant. Adjusted R^2 is 0.754986 that shows 75.4986% change is being made by all IV.

Table 4.5.2 Multivariate Regression (China)

Dependent Variable: Portfolio B_HC

Variables	Coefficient	T-Statistic	Prob.
MKT	0.3570	4.4111	0.002
SMB	0.3640	1.8477	0.0673
HML	0.1870	2.1438	0.0342
LIQP	0.0927	1.2681	0.2072
NPL	0.4883	3.6657	0.0004
CAR	0.5734	5.8801	0.003
OP	0.1632	1.7797	0.0778
Adjusted R-square	0.5607		
F-Stat	0.7001		

When B_HC is regress with the VALUE, MKT, NPL, LIQ, SIZE, Premium, CAR and OP. the LIQ found insignificant but VALUE, MKT, SIZE, NPL premium, CAR and OP is positive significant. Adjusted R^2 is 0.56073 that shows 56.073% change is being made by the all independent variables

Table 4.5.3 Multivariate Regression (China)

Dependent Variable: Portfolio B_HL

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1637	2.2325	0.0276
SMB	-0.092	-0.5178	0.6056
HML	0.1787	2.2617	0.0256
LIQP	1.4215	21.463	0.003
NPL	-0.091	-0.7558	0.4513
CAR	-0.2103	-2.381	0.018
OP	0.1645	1.9798	0.0502
Adjusted R-square	0.938		
F-Stat	2.5943		

When B_HL is regress with the VALUE, MKT NPL, LIQ, SIZE Premium, CAR and OP. the SIZE, NPL found insignificant but LIQ, VALUE , MKT, CAR and OP is positive significant. Adjusted R^2 is 0.93828 that shows 93.828% change is being made by the all independent variables

Table 4.5.4 Multivariate Regression (China)

Dependent Variable: Portfolio B_HNP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.4012	3.4937	0.0007
SMB	-0.2886	-1.0326	0.304
HML	0.0453	0.3665	0.7147
LIQP	0.0714	0.6887	0.4924
NPL	1.4013	7.4129	0.01
CAR	0.3336	2.4112	0.0175
OP	-0.64	-4.923	0.0004

Adjusted R-square	0.7275
F-Stat	46.3939

When B_HNP is regress , with VALUE, LIQ, MKT, NPL, SIZE Premium, CAR and OP. LIQ, VALUE, SIZE found insignificant but CAR, NPL, MKT and OP is positive significant. Adjusted R^2 is 0.727534 that shows 72.7534% change is being made by all IV.

Table 4.5.5 Multivariate Regression (China)

Dependent Variable: Portfolio B_HOP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.3956	3.6132	0.0005
SMB	-0.0788	-0.2957	0.7679
HML	-0.0746	-0.6324	0.5284
LIQP	0.0245	0.2479	0.8046
NPL	0.651	3.6115	0.0005
CAR	0.4828	3.6597	0.0004
OP	0.2	1.6114	0.1099
Adjusted R-square	0.4925		
F-Stat	17.4987		

When B_HOP is regress , with VALUE, NPL, LIQ, SIZE Premium, CAR , MKT and OP. the LIQ, VALUE , SIZE premium and OP found insignificant but CAR, NPL, MKT is positive significant. Adjusted R^2 is 0.492518 that shows 49.2518% change is being made by all IV.

Table 4.5.6 Multivariate Regression (China)

Dependent Variable: Portfolio B_HV

Variables	Coefficient	T-Statistic	Prob.
MKT	0.5469	7.3973	0.004

SMB	0.0982	0.5459	0.5862
HML	0.1764	2.2139	0.0289
LIQP	-0.0916	-1.3724	0.1727
NPL	0.02161	0.1776	0.8593
CAR	-0.0521	-0.5852	0.5595
OP	0.1186	1.4152	0.1598
Adjusted R-square	0.3618		
F-Stat	10.640		

When B_HV is regress with the VALUE, SIZE, NPL, LIQ, MKT, Premium CAR and OP. the CAR, LIQ, NPL, SIZE and OP found insignificant but VALUE, MKT is positive significant. Adjusted R^2 is 0.361863 that shows 36.1863% change is being made by all IV.

Table 4.5.7 Multivariate Regression (China)

Dependent Variable: Portfolio B_LC

Variables	Coefficient	T-Statistic	Prob.
MKT	0.4736	4.3164	0.003
SMB	-0.3109	-1.1642	0.2468
HML	-0.0916	-0.7749	0.44
LIQP	0.0903	0.9119	0.3637
NPL	0.641	3.5488	0.0022
CAR	-0.4143	-3.133	0.0006
OP	-0.7612	-6.1201	0.005
Adjusted R-square	0.7086		
F-Stat	42.3473		

When B_LC is regress , with VALU, NPL, MKT, LIQ, SIZE Premium, CAR and OP. the LIQ, VALUE, SIZE found insignificant but CAR, NPL, MKT and OP is positive significant. Adjusted R^2 is 0.708641 that shows 70.8641% change is being made by all IV.

Table 4.5.8 Multivariate Regression (China)

Dependent Variable: Portfolio B_LL

Variables	Coefficient	T-Statistic	Prob.
MKT	0.2034	2.6665	0.0088
SMB	-0.2041	-1.0997	0.2738
HML	0.1774	2.1588	0.033
LIQP	-0.1552	-2.2525	0.0262
NPL	-0.146	-1.1635	0.2471
CAR	-0.2317	-2.5217	0.0131
OP	0.1785	2.0648	0.0413
Adjusted R-square	0.0847		
F-Stat	2.5748		

When B_LL is regress , with LIQ, VALUE, MKT, NPL, SIZE, Premium, CAR and OP. the NPL, SIZE found insignificant but OP, VALUE and MKT is positive significant and LIQ, CAR is negative significant. Adjusted R^2 is 0.084785 that shows 8.4785% change is being made by all IV.

Table 4.5.9 Multivariate Regression (China)

Dependent Variable: Portfolio B_LNP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.3689	5.1466	0.0006
SMB	0.1561	0.8948	0.3728
HML	0.1325	1.716	0.0889
LIQP	0.0054	0.0835	0.933

NPL	-0.1434	-1.2155	0.2267
CAR	-0.0969	-1.1224	0.2641
OP	0.1324	1.6296	0.106
Adjusted R-square	0.24021		
F-Stat	6.3735		

When B_LNP is regress , with VALUE, SIZE, NPL, MKT, LIQ Premium, CAR and OP. the CAR, LIQ, NPL, SIZE and OP found insignificant but VALUE, MKT is positive significant. Adjusted R^2 is 0.240174 that shows 24.0174% change is being made by all IV.

Table 4.5.10 Multivariate Regression (China)

Dependent Variable: Portfolio B_LOP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.3306	4.7471	0.004
SMB	-0.0873	-0.5154	0.6073
HML	0.1334	1.7771	0.0783
LIQP	0.065	1.0336	0.3035
NPL	0.7057	6.1549	0.005
CAR	-0.1544	-1.8406	0.0683
OP	-0.791	-10.018	0.0009
Adjusted R-square	0.8333		
F-Stat	85.9830		

When B_LOP is regress , with LIQ, VALUE, MKT, NPL, SIZE Premium, CAR and OP. the LIQ, SIZE found insignificant but CAR, VALUE, NPL, MKT and OP is positive significant. Adjusted R^2 is 0.833306 that shows 83.30306% change is being made by all IV.

Table 4.5.11 Multivariate Regression (China)

Dependent Variable: Portfolio B_LV

Variables	Coefficient	T-Statistic	Prob.
MKT	0.3859	3.4544	0.0008
SMB	0.1644	0.6048	0.5465
HML	-1.1272	-9.3624	0.001
LIQP	0.0976	0.9672	0.3355
NPL	0.8914	4.8477	0.006
CAR	0.3362	2.4978	0.0139
OP	-0.3823	-3.0193	0.0031
Adjusted R-square	0.7258		
F-Stat	46.0126		

When B_LV is regress , with LIQ, VALUE, MKT, NPL, SIZE Premium, CAR and OP. the LIQ, SIZE found insignificant but CAR, VALUE, NPL, MKT and OP is positive significant. Adjusted R^2 is 0.725863 that shows 72.5863% change is being made by all IV.

Table 4.5.12 Multivariate Regression (China)

Dependent Variable: Portfolio S

Variables	Coefficient	T-Statistic	Prob.
MKT	0.5058	6.106	0.007
SMB	0.5021	2.4902	0.0142
HML	-0.509	-5.71	0.004
LIQP	0.0531	0.7108	0.4786
NPL	0.3981	2.9197	0.0042
CAR	0.1102	1.1041	0.2719
OP	-0.1942	-2.069	0.0408

Adjusted R-square	0.6117
F-Stat	27.7866

When S is regress with LIQ, SIZE, VALUE, MKT, NPL Premium, CAR and OP. the CAR, LIQ found insignificant but NPL, SIZE, VALUE, MKT and OP is positive significant. Adjusted R^2 is 0.611754 that shows 61.1754% change is being made by all IV.

Table 4.5.13 Multivariate Regression (China)

Dependent Variable: Portfolio S_HC

Variables	Coefficient	T-Statistic	Prob.
MKT	0.3553	4.6038	0.001
SMB	1.0575	5.6295	0.003
HML	-0.3998	-4.806	0.006
LIQP	0.4081	5.8547	0.007
NPL	0.1133	4.4673	0.3743
CAR	0.4153	0.892	0.0004
OP	-0.3156	-3.608	0.0005
Adjusted R-square	0.5310		
F-Stat	20.2531		

When S_HC is regress with the LIQ, VALUE, SIZE, MKT, NPL Premium, CAR and OP. the NPL found insignificant but CAR, SIZE, VALUE, LIQ, MKT and OP is positive significant. Adjusted R^2 is 0.531075 that shows 53.1075% change is being made by all IV.

Table 4.5.14Multivariate Regression (China)

Dependent Variable: Portfolio S_HL

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1835	2.4703	0.015
SMB	-0.1483	-0.82	0.414
HML	0.1781	2.2241	0.0281
LIQP	0.6331	9.4347	0.0001
NPL	-0.1186	-0.9702	0.334
CAR	-0.221	-2.469	0.015
OP	0.1715	2.0368	0.044
	0.7781		
Adjusted R-square	6.6362		
F-Stat			

When S_HL is regress with the LIQ, VALUE, SIZE, MKT, NPL Premium, CAR and OP. the NPL, SIZE found insignificant but CAR, VALUE, LIQ, MKT and OP is positive significant. Adjusted R^2 is 0.778173 that shows 77.8173% change is being made by all IV.

Table 4.5.15 Multivariate Regression (China)

Dependent Variable: Portfolio S_HNP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.2309	2.0461	0.0431
SMB	2.0542	7.4763	0.001
HML	-0.2577	-2.1179	0.0364
LIQP	0.3639	3.5696	0.0005
NPL	0.4332	-1.4798	0.0215
CAR	-0.2012	2.3317	0.1417
OP	0.4407	3.4447	0.0008

Adjusted R-square	0.8285
F-Stat	8.3161

When S_HNP is regress with the LIQ, VALUE, SIZE, MKT, NPL Premium, CAR and OP. the CAR found insignificant but NPL, SIZE, VALUE, LIQ, MKT and OP is positive significant. Adjusted R^2 is 0.828562 that shows 82.8562% change is being made by all IV.

Table 4.5.16Multivariate Regression (China)

Dependent Variable: Portfolio S_HOP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.3595	3.0995	0.025
SMB	1.3880	4.9168	0.005
HML	-0.1494	-1.1955	0.2344
LIQP	0.4540	4.3337	0.006
NPL	0.0221	0.1162	0.9077
CAR	-0.4338	-3.1047	0.0024
OP	0.6434	4.8947	0.0004
Adjusted R-square	0.8171		
F-Stat	76.9490		

When S_HOP is regress with the LIQ, VALUE, SIZE, MKT, NPL Premium, CAR and OP. the NPL, VALUE found insignificant but CAR, SIZE, LIQ, MKT and OP is positive significant. Adjusted R^2 is 0.817104 that shows 82.7104% change is being made by all IV.

Table 4.5.17 Multivariate Regression (China)

Dependent Variable: Portfolio S_HV

Variables	Coefficient	T-Statistic	Prob.
MKT	0.2840	3.0753	0.0026
SMB	0.4248	1.4451	0.1512
HML	0.3655	3.6718	0.0004
LIQP	0.2098	2.5150	0.0133
NPL	0.9762	6.4217	0.011
CAR	0.2764	2.4840	0.0145
OP	-0.5806	-5.5464	0.0004
Adjusted R-square	0.7686		
F-Stat	57.477		

When S_HV is regress with the LIQ, VALUE, SIZE, MKT, NPL Premium, CAR and OP. the SIZE found insignificant but CAR, LIQ, VALUE, NPL, MKT and OP is positive significant. Adjusted R^2 is 0.768635 that shows 76.8635% change is being made by all IV.

Table 4.5.18 Multivariate Regression (China)

Dependent Variable: Portfolio S_LC

Variables	Coefficient	T-Statistic	Prob.
MKT	0.2387	2.2413	0.027
SMB	1.7325	6.6837	0.005
HML	-0.1211	-1.0558	0.2933
LIQP	0.4105	4.2674	0.0006
NPL	-0.0393	-0.2243	0.8229
CAR	-0.5967	-4.6502	0.003

OP	.6088	5.0437	0.001
Adjusted R-square	0.8449		
F-Stat	93.6528		

When S_LC is regress with the LIQ, VALUE, SIZE, MKT, NPL Premium, CAR and OP. the NPL, VALUE found insignificant but CAR, SIZE, LIQ, MKT and OP is positive significant. Adjusted R^2 is 0.844965 that shows 84.4965% change is being made by all IV.

Table 4.5.19 Multivariate Regression (China)

Dependent Variable: Portfolio S_LL

Variables	Coefficient	T-Statistic	Prob.
MKT	0.1438	1.9600	0.0525
SMB	-0.0365	-0.2045	0.8383
HML	0.1793	2.2676	0.0253
LIQP	0.2099	3.1673	0.002
NPL	-0.0638	-0.5281	0.5984
CAR	-0.1006	-2.258	0.0259
OP	0.1575	1.8941	0.0608
Adjusted R-square	0.4408		
F-Stat	14.4045		

When S_LL is regress with the LIQ, VALUE, SIZE, MKT, NPL Premium, CAR and OP. the NPL, SIZE found insignificant but CAR, VALUE, LIQ, MKT and OP is positive significant. Adjusted R^2 is 0.440873 that shows 44.0873% change is being made by all IV.

Table 4.5.20 Multivariate Regression (China)

Dependent Variable: Portfolio S_LNP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.2632	3.4327	0.0008
SMB	1.6094	8.6230	0.0003
HML	-0.3449	-4.1734	0.0001
LIQP	0.4300	6.2082	0.0005
NPL	-0.0219	-0.1738	0.8623
CAR	0.2293	2.4819	0.0146
OP	-0.3325	-3.8257	0.0002
Adjusted R-square	0.6175		
F-Stat	28.4502		

When S_LNP is regress with the LIQ, VALUE, SIZE, MKT, NPL Premium, CAR and OP. the NPL found insignificant but CAR, SIZE, VALUE, LIQ, MKT and OP is positive significant. Adjusted R^2 is 0.61755 that shows 61.755% change is being made by all IV.

Table 4.5.21 Multivariate Regression (China)

Dependent Variable: Portfolio S_LOP

Variables	Coefficient	T-Statistic	Prob.
MKT	0.4245	5.3763	0.0005
SMB	1.3965	7.2668	0.0003
HML	-0.3575	-4.2011	0.0001
LIQP	0.4135	5.7979	0.004
NPL	-0.0325	-0.2501	0.8029
CAR	0.2035	2.1390	0.0346

OP	-0.3654	-4.0833	0.0001
	0.6136		
Adjusted R-square			
F-Stat	27.9979		

When S_LOP is regress with the LIQ, VALUE, SIZE, MKT, NPL Premium, CAR and OP. the NPL found insignificant but CAR, SIZE, VALUE, LIQ, MKT and OP is positive significant. Adjusted R^2 is 0.613618 that shows 61.3618% change is being made by all IV.

Table 4.5.22 Multivariate Regression (China)

Dependent Variable: Portfolio S_LV

Variables	Coefficient	T-Statistic	Prob.
MKT	0.4450	4.2358	0.004
SMB	0.2586	1.0113	0.314
HML	-0.3307	-2.9208	0.0042
LIQP	0.0205	0.2165	0.829
NPL	0.1064	0.6155	0.5395
CAR	-0.1119	-0.884	0.3785
OP	-0.079	-0.669	0.5047
Adjusted R-square	0.3723		
F-Stat	11.0845		

When S_LV is regress with the LIQ, VALUE, SIZE, MKT, NPL Premium, CAR and OP. the CAR, LIQ, NPL, SIZE and OP found insignificant but VALUE, MKT is positive significant. Adjusted R^2 is 0.613618 that shows 61.3618% change is being made by the all independent variables.

CHAPTER 5

CONCLUSION AND RECOMMENDATION

Results and Discussion

The explanatory power of CAPM, three-factor model of Fama and French model and multi factor model has been explored by Multivariate regressions analysis to capture the relationship between market premium, size premium, value premium, Liquidity premium, Credit risk premium, Capital adequacy ratio and Operational risk in China and Pakistan. The results shows the goodness of fit and report the model is fit to describe the relationship among independent and dependent variables. The results are in line with prior studies; Hassan and Javed (2011), Mirza, Sara and Abbas (2013), Chaibi, Alioui and Xiao (2014), and Baek & Bilson (2015).

For Pakistan Results indicate with reference to assets pricing model , size premium is found significantly and positively related to P, but found significant negative B_HC, B_HNP , B_LL , B_LOP, S, S_HC, S_HL, S_HOP, S_HV, S_LL, S_LNP, S_LOP , insignificant in case of B, B_HL, B_HOP, B_HV, B_LC, B_LNP, B_LV, S_HNP, S_LC , S_LV.

Value premium is found significant positively related big and small portfolio, but found significant negative B_HL, B_HOP insignificant in case of P, B, B_HC, B_HNP, B_HV, B_LC, B_LL, B_LNP, B_LOP, B_LV, S, S_HC, S_HL, S_HNP, S__HOP, S_HV, S_LC, S_LL, S_LNP, S_LOP, S_LV.

Market premium is found positively related to big and small portfolio Like P, Insignificant in case of B, B_HC, B_HL, B_HNP, B_HOP, B_HV, B_LC, B_LL, B_LNP, B_LOP, B_LV, S, S_HC, S_HL, S_HNP, S_HOP, S_HV, S_LC, S_LL, S_LNP, S_LOP, S_LV.

Liquidity premium is found significant positively related to big and small portfolio Like P, Insignificant in case of B, B_HC, B_HL, B_HNP, B_HOP, B_HV, B_LC, B_LL, B_LNP, B_LOP, B_LV, S, S_HC, S_HL, S_HNP, S_HOP, S_HV, S_LC, S_LL, S_LNP, S_LOP, S_LV.

Credit risk prmium is found significant positively related to big and small portfolio Like P, Insignificant in case of B, B_HC, B_HL, B_HNP, B_HOP, B_HV, B_LC, B_LL, B_LNP, B_LOP, B_LV, S, S_HC, S_HL, S_HNP, S_HOP, S_HV, S_LC, S_LL, S_LNP, S_LOP, S_LV.

Capital adequacy ratio is found significant positively related to big and small portfolio Like P Insignificant in case of B, B_HC, B_HL, B_HNP, B_HOP, B_HV, B_LC, B_LL, B_LNP, B_LOP, B_LV, S, S_HC, S_HL, S_HNP, S_HOP, S_HV, S_LC, S_LL, S_LNP, S_LOP, S_LV.

Operational risk is found significant positively related to big and small portfolio Like P, but found not significant negative. Insignificant in case of B, B_HC, B_HL, B_HNP, B_HOP, B_HV, B_LC, B_LL, B_LNP, B_LOP, B_LV, S, S_HC, S_HL, S_HNP, S_HOP, S_HV, S_LC, S_LL, S_LNP S_LOP, S_LV.

For China Results indicate with reference to assets pricing model , size premium is fund significant positively related to big and small portfolio like B, B_HC, S, S_HC, S_HNP, S_HOP, S_LNP, S_LOP. Insignificant in case of P, B_HL, B_HNP, B_HOP, B_HV, B_LC, B_LL, B_LNP, B_LOP, B_LV, S_HL, S_HV, S_LC, S_LL, S_LV.

Value premium is found significant positively related to big and small portfolio Like B, B_HC, B_HL, B_HV, B_LL, B_LNP, B_LOP, B_LV, S, S_HC, S_HL, S_HNP, S_HV, S_LL, S_LNP, S_LOP, S_LV. Insignificant in case of P, B_HNP, B_HOP, B_LC, S_HOP, S_LC.

Market premium is found significant positively related to big and small portfolio Like B, B_HC, B_HL, B_HNP, B_HOP, B_HV, B_LC, B_LL, B_LNP, B_LOP, B_LV, S, S_HC, S_HL, S_HNP, S_HOP, S_HV, S_LC, S_LL, S_LNP, S_LOP, S_LV. Insignificant in case of P.

Liquidity premium is found significant positively related to big and small portfolio Like B, B_HL, S_HC , S_HL, S_HNP, S_HOP, S_HV, S_LC, S_LL, S_LNP, S_LOP, but found significant negative B_LL, Insignificant in case of P, B_HC, B_HNP, B_HOP, B_HV, B_LC, B_LNP, B_LOP, B_LV, S, S_LV.

Credit risk premium is found significant positively related to big and small portfolio Like B, B_HC, B_HNP, B_HOP, B_LC, B_LOP, B_LV, S, S_HNP, S_HV, Insignificant in case of P, B_HL, B_HV, B_LL, B_LNP, S_HC, S_HL, S_HOP, S_LC, S_LL, S_LNP, S_LOP, S_LV.

Capital adequacy ratio is found significant positively related to big and small portfolio Like B_HL, B_HNP, B_HOP, B_LC, B_LOP, B_LV, S_HC, S_HL, S_HOP, S_HV, S_LC, S_LL, S_LNP, S_LOP, but found significant negative P, B_LL, Insignificant in case of B, B_HC, B_HV, B_LNP, S, S_HNP, S_LV.

Operational risk is found significant positively related to big and small portfolio Like B_HC, B_HL, B_HNP, B_LL, B_LOP, B_LV, S, S_HC, S_HL, S_HNP, S_HOP, S_HV , S_LC, S_LL, S_LNP, S_LOP. Insignificant in case of P, B, B_HOP, B_HV, B_LC, B_LNP, S_LV.

The findings of the study future reveal that seven factor model significantly explains portfolio returns. Because all the factor of model effect the stock return in different portfolios.

In case of Pakistan, Only size premium, liquidity premium and operational risk premium is found partially significant, not for all portfolios. So, hypotheses H2, H4 and H7 are accepted for Pakistan. However, in case of Pakistan, all the factor shows significant results in most of the portfolios so all hypotheses are accepted for China.

5.1 CONCLUSION

This research indicates the Impact of Risk management Practices, (Liquidity Premium, Credit Risk Premium, Value premium, Capital Adequacy ratio, Market premium, and Operational Risk, Size premium) on stock return of banking sector of two emerging nations i.e Pakistan and China. In case of Pakistan, size premium, liquidity premium and operational risk premium issignificant so Pakistani market price these factors which is in line with the studies of (Jun et al. 2003) discovered stock return is positive relationship in developing markets same as created nations. Moreover, Chinese market is pricing all the factors under study due to significant result for all portfolios. Due to the utilization of monthly data of two emerging markets for the phase of January 2008 to December 2017 this research focus the impact of risk management practices in explaining equity returns in Chinese market and Pakistani market to examine the asset pricing model. These findings are similar to the empirical evidences Hassan and Javed (2011), Minovic, J., & Zivkovic, B. (2012), Mirza, Sara and Abbas (2013), Chaibi, Alioui and Xiao (2014), and Baek & Bilson (2015). The study on the various factor like value, size, Market premium, book to market ratio. As a new proxy, this examine illustrates for the banks of Pakistanis and Chinese for the equity returns. (Liquidity as a measure of Liquidity coverage ratio, Non-Performing Loan as a measure of Credit risk Premium). This investigation investigates combine impact of market, size and new factor Credit risk Premium, liquidity premium, Capital Adequacy Ratio, Operational Risk by using Fama and French (1992, 1993) methodology. The utilization of multivariate regression to investigate the impact of this latest factor on the integrity and importance in research for providing new insights. In the nutshell, it can be concluded that Chinese market is priced all the factors including market premium, size premium, liquidity premium, capital adequacy and operational risk premium and Pakistani market only price size premium, liquidity premium and operational risk premium. So, in this way, these emerging economies provide a great way for investors to invest in such markets and able them to earn profit and diversification benefits by making stylized portfolios.

5.2 Recommendation and Policy Implementation

The shareholders must think about these components regarding investment and allocation of funds and financing production. These components include as (market premium, size premium, value of shares, Liquidity of banks, Credit risk premium, Capital adequacy and operational risk). To better estimate the portfolio return, they can develop stylized efficient portfolio In this way. For optimistic and vital connection among these components such as CR, LIQ and CAR ratio the positive and significant relationship among CR, LIQ , CAR ratio. In the study of Pakistani and Chinese banks, in Asian markets these two components Operational risk and stock returns must think about regarding policy production as well as about the performance of these policies which can make progress to increase the liquidity ,Credit risk ,capital adequacy ratio and operational risk as well .While producing multiple ideas and plannings for financing, the supervisior of portfolio must investigates these elements as liquidity, Credit risk, Capital adequacy ratio and Operational risk.

5.3 Limitation of Study

In this study, because of availability of data problem to measure the Liquidity on the basis of liquidity coverage ratio and Non-performing loan used as a measure of Credit risk premium. However, few studies show that Liquidity coverage ratio does not catch all aspects of liquidity and Non-performing loan does not catch all aspects of Credit risk premium. Another limitation of this study is to observe only financial sector. Limited sample size in the study are more important limitation of this research.

5.4 Future Research Direction

To completely understand the affect of Liquidity premium, Credit risk premium, Capital Adequacy ratio, Operational risk required more research on all sectors of Pakistan and China including non- financial and financial sectors. Portfolios are constructed in this study on the basis of low and high coverage ratio. In the future portfolio can be constructed on the basis of on low, medium and high Liquidity coverage ratio (measure of liquidity) as well as liquidity factor can also be tested in future in these two markets (Pakistan, China) by using attractive proxies that can explain returns variations. A new proxy can also be used for liquidity and credit risk premium and other risk factors to study asset-pricing in Asian emerging markets in future.

6. REFERENCES

Adams, R., & Mehran, H. (2003). Is corporate governance different for bank holding companies?

Ahmed Sheikh, N., & Wang, Z. (2012). Effects of corporate governance on capital structure: empirical evidence from Pakistan. *Corporate Governance: The international journal of business in society*, *12*(5), 629-641.

Altman, E. I. (2000). Predicting financial distress of companies: revisiting the Z-score and ZETA models. *Stern School of Business, New York University*, 9-12.

Altman, E. I. (2002). Revisiting credit scoring models in a Basel 2 environment.

Beasley, M. S. (1996). An empirical analysis of the relation between the board of director composition and financial statement fraud. *Accounting review*, 443-465.

Berglöf, E., & Perotti, E. (1994). The governance structure of the Japanese financial keiretsu. *Journal of financial economics*, *36*(2), 259-284.

Bonn, I. (2004). Board structure and firm performance: Evidence from Australia. *Journal of Management & Organization, 10*(1), 14-24.

Bushman, R., Chen, Q., Engel, E., & Smith, A. (2004). Financial accounting information, organizational complexity and corporate governance systems. *Journal of Accounting and Economics, 37*(2), 167-201.

Chaganti, R., & Damanpour, F. (1991). Institutional ownership, capital structure, and firm performance. *Strategic Management Journal, 12*(7), 479-491.

Chaganti, R. S., Mahajan, V., & Sharma, S. (1985). Corporate board size, composition and corporate failures in retailing industry [1]. *Journal of Management Studies, 22*(4), 400-417.

Cornett, M. M., McNutt, J. J., & Tehranian, H. (2009). Corporate governance and earnings management at large US bank holding companies. *Journal of Corporate finance, 15*(4), 412-430.

Daily, C. M., & Dalton, D. R. (1994). Bankruptcy and corporate governance: The impact of board composition and structure. *Academy of Management journal, 37*(6), 1603-1617.

Eidleman, G. J. (1995). Z scores-A Guide to failure prediction. *The CPA Journal*, *65*(2), 52.

Elloumi, F., & Gueyie, J.-P. (2001). Financial distress and corporate governance: an empirical analysis. *Corporate Governance: The international journal of business in society, 1*(1), 15-23.

Fich, E. M., & Slezak, S. L. (2008). Can corporate governance save distressed firms from bankruptcy? An empirical analysis. *Review of Quantitative Finance and Accounting, 30*(2), 225-251.

Gedajlovic, E., & Shapiro, D. M. (2002). Ownership structure and firm profitability in Japan. *Academy of Management journal, 45*(3), 565-575.

Gholami, M., & Hjelm, A. (2014). A study in the effectiveness of predicting default using the Merton model during financial distress.

Guo, Z., & Kga, U. K. (2012). Corporate governance and firm performance of listed firms in Sri Lanka. *Procedia-Social and Behavioral Sciences, 40*, 664-667.

Harris, D., & Helfat, C. E. (1998). CEO duality, succession, capabilities and agency theory: Commentary and research agenda. *Strategic Management Journal*, 901-904.

Hassan, S. U., & Farouk, M. A. (2014). Board of director's characteristics and performance of listed deposit money banks in Nigeria. *Journal of Finance and Bank Management, 2*(1), 89-105.

Hoitash, U., Hoitash, R., & Bedard, J. C. (2009). Corporate governance and internal control over financial reporting: A comparison of regulatory regimes. *The accounting review, 84*(3), 839-867.

Hoshi, T., Kashyap, A., & Scharfstein, D. (1990). The role of banks in reducing the costs of financial distress in Japan. *Journal of financial economics, 27*(1), 67-88.

Hui, H., & Jing-Jing, Z. (2008). Relationship between corporate governance and financial distress: An empirical study of distressed companies in China. *International Journal of Management, 25*(4), 654.

Joh, S. W. (2003). Corporate governance and firm profitability: evidence from Korea before the economic crisis. *Journal of financial economics, 68*(2), 287-322.

Kang, J.-K., & Shivdasani, A. (1995). Firm performance, corporate governance, and top executive turnover in Japan. *Journal of financial economics, 38*(1), 29-58.

Karpoff, J. M., Malatesta, P. H., & Walkling, R. A. (1996). Corporate governance and shareholder initiatives: Empirical evidence. *Journal of financial economics, 42*(3), 365-395.

Kim, K., & Buchanan, R. (2008). CEO duality leadership and firm risk-taking propensity. *Journal of Applied Business Research, 24*(1), 27.

Koufopoulos, D. N., Gkliatis, I. P., & Zoumbos, V. T. (2010). Board Attributes and the Impact of Organizational Characteristics: Findings from the Greek Listed Manufacturing Companies.

Kristanti, F. T., Rahayu, S., & Huda, A. N. (2016). The Determinant of Financial Distress on Indonesian Family Firm. *Procedia-Social and Behavioral Sciences, 219*, 440-447.

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. *Journal of financial economics, 58*(1), 3-27.

Larcker, D. F., Richardson, S. A., & Tuna, I. (2007). Corporate governance, accounting outcomes, and organizational performance. *The accounting review, 82*(4), 963-1008.

Lee, T. S., & Yeh, Y. H. (2004). Corporate governance and financial distress: Evidence from Taiwan. *Corporate Governance: An International Review, 12*(3), 378-388.

Levin, A., Lin, C.-F., & Chu, C.-S. J. (2002). Unit root tests in panel data: asymptotic and finite-sample properties. *Journal of econometrics, 108*(1), 1-24.

Li, H.-x., Wang, Z.-j., & Deng, X.-l. (2008). Ownership, independent directors, agency costs and financial distress: evidence from Chinese listed companies. *Corporate Governance: The international journal of business in society, 8*(5), 622-636.

Lichtenberg, F. R., & Pushner, G. M. (1994). Ownership structure and corporate performance in Japan. *Japan and the World Economy, 6*(3), 239-261.

Lin, T.-H. (2009). A cross model study of corporate financial distress prediction in Taiwan: Multiple discriminant analysis, logit, probit and neural networks models. *Neurocomputing, 72*(16-18), 3507-3516.

Manzaneque, M., Priego, A. M., & Merino, E. (2016). Corporate governance effect on financial distress likelihood: Evidence from Spain. *Revista de Contabilidad, 19*(1), 111-121.

Mayer, C. (1996). Corporate governance, competition and performance.

McFadden, D. (1973). Conditional logit analysis of qualitative choice behavior.

Moon, J., & Sharma, A. (2014). The effect of board classification in the restaurant industry. *The Journal of Hospitality Financial Management, 22*(1), 32-40.

Muranda, Z. (2006). Financial distress and corporate governance in Zimbabwean banks. *Corporate Governance: The international journal of business in society, 6*(5), 643-654.

Outecheva, N. (2007). *Corporate financial distress: An empirical analysis of distress risk*: na.

Parker, S., Peters, G. F., & Turetsky, H. F. (2002). Corporate governance and corporate failure: a survival analysis. *Corporate Governance: The international journal of business in society, 2*(2), 4-12.

Pindado, J., Rodrigues, L., & de la Torre, C. (2008). Estimating financial distress likelihood. *Journal of Business Research, 61*(9), 995-1003.

Pradhan, R. (2014). Z score estimation for Indian banking sector. *International journal of trade, economics and finance, 5*(6), 516.

Ramdani, D., & Witteloostuijn, A. v. (2010). The impact of board independence and CEO duality on firm performance: A quantile regression analysis for Indonesia, Malaysia, South Korea and Thailand. *British Journal of Management, 21*(3), 607-627.

Rechner, P. L., & Dalton, D. R. (1991). CEO duality and organizational performance: A longitudinal analysis. *Strategic Management Journal, 12*(2), 155-160.

Sayari, N., & Mugan, C. S. (2017). Industry specific financial distress modeling. *BRQ Business Research Quarterly, 20*(1), 45-62.

Simpson, W. G., & Gleason, A. E. (1999). Board structure, ownership, and financial distress in banking firms. *International Review of Economics & Finance, 8*(3), 281-292.

Sudarsanam, S., & Lai, J. (2001). Corporate financial distress and turnaround strategies: An empirical analysis. *British Journal of Management, 12*(3), 183-199.

Switzer, L. N., & Wang, J. (2013). Default risk estimation, bank credit risk, and corporate governance. *Financial Markets, Institutions & Instruments, 22*(2), 91-112.

Thorburn, K. S. (2004). Corporate governance and financial distress *New perspectives on economic crime* (pp. 76-94): Edward Elgar Publishing Cheltenham, UK.

Tsuruta, D. (2017). Variance of Firm Performance and Leverage of Small Businesses. *Journal of Small Business Management, 55*(3), 404-429.

Uwuigbe, O. R., & Fakile, A. S. (2012). The effects of board size on financial performance of banks: A study of listed banks in Nigeria. *International Journal of Economics and Finance*, *4*(2), 260-267.

Uzun, H., Szewczyk, S. H., & Varma, R. (2004). Board composition and corporate fraud. *Financial Analysts Journal*, *60*(3), 33-43.

Wang, Z.-J., & Deng, X.-L. (2006). Corporate governance and financial distress: Evidence from Chinese listed companies. *Chinese Economy*, *39*(5), 5-27.

Xie, B., Davidson III, W. N., & DaDalt, P. J. (2003). Earnings management and corporate governance: the role of the board and the audit committee. *Journal of Corporate finance*, *9*(3), 295-316.

Abbas, M. (2017). The Effect of Organizational Culture and Leadership Style towards Employee Engagement and Their Impact towards Employee Loyalty. *Asian Journal of Technology and Manag*

Aima, M., Reed, J. L., DeWerd, L. A., & Culberson, W. S. (2015). Air-kerma strength determination of a new directional 103Pd source. *Medical physics*, *42*(12), 7144-7152.*ement Research (AJTMR) ISSN*, *2249*, 0892.

Anginer, D., & Yildizhan, C. (2010). Is there a distress risk anomaly? Corporate bond spread as a proxy for default risk.

Bailit, J. L., Gregory, K. D., Reddy, U. M., Gonzalez-Quintero, V. H., Hibbard, J. U., Ramirez, M. M. & Hoffman, M. K. (2010). Maternal and neonatal outcomes by labor onset type and gestational age. *American journal of obstetrics and gynecology*, *202*(3), 245-e1.

Balcilar, M., &Demirer, R. (2015). Effect of global shocks and volatility on herd behavior in an emerging market: Evidence from Borsa Istanbul. *Emerging Markets Finance and Trade*, *51*(1), 1

Bauer, R., Cosemans, M., & Schotman, P. C. (2010). Conditional asset pricing and stock market anomalies in Europe. *European Financial Management*, *16*(2), 165-190.

Bazzarello, D., Crielaard, B., Piacenza, F., & Soprano, A. (2006). Modeling insurance mitigation on operational risk capital. *Journal of Operational risk*, *1*(1), 57-65.

Bhuiyan, A. (2013). *Anterior cruciate ligament response due to forces resulting from quadriceps muscle and ground reaction* (Doctoral dissertation).

Bilitchenko, L., Liu, A., Cheung, S., Weeding, E., Xia, B., Leguia, M., ... & Densmore, D. (2011). Eugene–a domain specific language for specifying and constraining synthetic biological parts, devices, and systems. *PloS one*, *6*(4), e18882.

Bosede, A., Abalaba, B., & Afolabi, D. (2013). Transport infrastructure improvement and economic growth in Nigeria. *International Journal of Humanities and Social Science Invention*, *2*(8), 23-31.

Cakan, E., &Balagyozyan, A. (2014). Herd behaviour in the Turkish banking sector. *Applied Economics Letters*, *21*(2), 75-79.

Campbell, J. Y., Hilscher, J., & Szilagyi, J. (2008). In search of distress risk. *The Journal of Finance*, *63*(6), 2899-2939.

Chan, L. K., Hamao, Y., & Lakonishok, J. (1991). Fundamentals and stock returns in Japan. *the Journal of Finance*, *46*(5), 1739-1764.

Chen, D., Zheng, Y., & Zhu, X. (2013). In-depth investigation on the pyrolysis kinetics of raw biomass. Part I: kinetic analysis for the drying and devolatilization stages. *Bioresource technology*, *131*, 40-46.

Chen, L., Petkova, R., & Zhang, L. (2008). The expected value premium. *Journal of Financial Economics*, *87*(2), 269-280.

Cheng, F.F., & A. Nasir, (2010).Earning Response Coefficient and the Finasseancial Risk of China Commercial Banks.*International*

Chernobai, A., Jorion, P., & Yu, F. (2011). The determinants of operational risk in US financial institutions. *Journal of Financial and Quantitative Analysis*, *46*(6), 1683-1725.

Daniel, K., Grinblatt, M., Titman, S., & Wermers, R. (1997). Measuring mutual fund performance with characteristic-based benchmarks. *The Journal of finance*, *52*(3), 1035-1058.

Dichev, I. D., & Piotroski, J. D. (2001). The long-run stock returns following bond ratings changes. *The Journal of Finance*, *56*(1), 173-203.

Ezike, J. E., & MO, O. (2013). Capital adequacy standards, basle accord and bank performance: the nigerian experience (A case study of selected Banks in Nigeria). *Asian Economic and Financial Review*, *3*(2), 146.

Fama, E. F., & French, K. R. (1992). The cross-section of expected stock returns. *the Journal of Finance*, *47*(2), 427-465.

Fernandez-Vazquez, A., & Jovanovic-Dolecek, G. (2005, October). Design of real and complex linear phase IIR filter banks. In *IEEE International Symposium on Communications and Information Technology, 2005. ISCIT 2005.* (Vol. 1, pp. 305-308). IEEE.

Fama, E. F., & French, K. R. (1993). Common Risk Factors In The Returns On The Stocks And Bonds. TheJournal Of Finance, 3, PP.3-56.

Fama, E. F., & French, K. R. (1993). Common risk factors in the returns on stocks and bonds. Journal of financial economics, 33(1), 3-56.

Fama, E. F., & French, K. R. (1995). Size and book-to-market factors in earnings and returns. TheJournal of Finance, 50(1), 131-155.

Fama, E. F., & French, K. R. (1996). Multifactor explanations of asset pricing anomalies. The journal offinance, 51(1), 55-84.

Fama, E. F., & French, K. R. (1998). Value versus growth: The international evidence. The Journal ofFinance, 53(6), 1975-1999.

Fama, E. F., &MacBeth, J. D. (1973). Risk, return, and equilibrium: Empirical tests. *The Journal of PoliticalEconomy*, 607-636.[12]. Fama, E. F., & French, K. R. (1992). The Cross-Section Of Expected Returns. The Journal Of Finance,47(2), PP. 427-465.

Gaudin, R., de Alencar, B. C., Jouve, M., Bèrre, S., Le Bouder, E., Schindler, M., ... & Benaroch, P. (2012). Critical role for the kinesin KIF3A in the HIV life cycle in primary human macro Guan, B. T., & Hou, Z. (2011). Rare-Earth-Catalyzed C–H Bond Addition of

Pyridines to Olefins. *Journal of the American Chemical Society*, *133*(45), 18086-18089.phages. *J Cell Biol*, *199*(3), 467-479.

Gharghori, P., Chan, H., & Faff, R. (2009). Default risk and equity returns: Australian evidence. *Pacific-Basin Finance Journal*, *17*(5), 580-593.

Goddard, R., Patton, W., & Creed, P. (2004). The importance and place of neuroticism in predicting burnout in employment service case managers. *Journal of Applied Social Psychology*, *34*(2), 282-296.

Gullbo, J., Lindhagen, E., Bashir-Hassan, S., Tullberg, M., Ehrsson, H., Lewensohn, R., ... & Larsson, R. (2004). Antitumor efficacy and acute toxicity of the novel dipeptide melphalanyl-p-L-fluorophenylalanine ethyl ester (J1) in vivo. *Investigational new drugs*, *22*(4), 411-420.

Hand, J. R., Holthausen, R. W., & LEFTWICH*, R. W. (1992). The effect of bond rating agency announcements on bond and stock prices. *The journal of finance*, *47*(2), 733-752.

Hassan, H. U., Ilyas, M., & Rehman, C. A. (2014). Quantitative study of bank-specific and social factors of non-performing loans of Pakistani Banking Sector. *International Letters of Social and Humanistic Sciences*, *43*, 192-213.

Harly, C., Guillaume, Y., Nedellec, S., Peigné, C. M., Mönkkönen, H., Mönkkönen, J., ... & Déchanet-Merville, J. (2012). Key implication of CD277/butyrophilin-3 (BTN3A) in cellular stress sensing by a major human γδ T-cell subset. *Blood*, *120*(11), 2269-2279.

Hoffman, D. J. (2002). Role of selenium toxicity and oxidative stress in aquatic birds. *Aquatic Toxicology*, *57*(1-2), 11-26.

Hsu, C. L., Best, J. R., Davis, J. C., Nagamatsu, L. S., Wang, S., Boyd, L. A., ... & Liu-Ambrose, T. (2018). Aerobic exercise promotes executive functions and impacts functional neural activity among older adults with vascular cognitive impairment. *Br J Sports Med*, *52*(3), 184-191.

Imtiaz, M., Rizwan, M. S., Xiong, S., Li, H., Ashraf, M., Shahzad, S. M., ... & Tu, S. (2015). Vanadium, recent advancements and research prospects: a review. *Environment International*, *80*, 79-88.

Jasienė, M., Martinavicius, J., Jaseviciene, F., & Krivkiene, G. (2012). Bank liquidity risk: Analysis and estimates. *Business, Management and Education*, *10*(2), 186.

Kang, C., & Kang, H. G. (2009). The effect of credit risk on stock returns. *Journal of Economic Research*, *14*(2), 49-67.

Kazemi, A., Ellenius, J., Pourasghar, F., Tofighi, S., Salehi, A., Amanati, A., & Fors, U. G. (2011). The effect of computerized physician order entry and decision support system on medication errors in the neonatal ward: experiences from an Iranian teaching hospital. *Journal of medical systems*, *35*(1), 25-37.

Kim, J. H., On, K. W., Lim, W., Kim, J., Ha, J. W., & Zhang, B. T. (2016).

Kuzubov, A. A., Fedorov, A. S., Eliseeva, N. S., Tomilin, F. N., Avramov, P. V., & Fedorov, D. G. (2012). High-capacity electrode material BC 3 for lithium batteries proposed by ab initio simulations. *Physical Review B*, *85*(19), 195415.

Leika, M. (2008). Finansų sistemos stabilumas-centrinio banko tikslas. *igų studijos*, (1), 68-83.

Li, S. B., Xie, Z. Z., Hu, C. G., & Zhang, J. Z. (2016). A review of auxin response factors (ARFs) in plants. *Frontiers in plant science*, *7*, 47.

Lintner, J. (1965). Security prices, risk, and maximal gains from diversification. The Journal of Finance,20(4), 587-615.

Luke, C. A. (2012). *Stavudine induced lactic acidosis, risk factors and predictive laboratory markers: a nested case-control study in South Africa* (Doctoral dissertation).

Markowitz, H. (1952). Portfolio selection. The journal of finance, 7(1), 77-91.

McGraw-Hill Education.Noe, R. A., Hollenbeck, J. R., Gerhart, B., & Wright, P. M. (2017). *Human resource management: Gaining a competitive advantage*. New York, NY:

Mechler, R., Bouwer, L. M., Linnerooth-Bayer, J., Hochrainer-Stigler, S., Aerts, J. C., Surminski, S., & Williges, K. (2014). Managing unnatural disaster risk from climate extremes. *Nature Climate Change*, *4*(4), 235.

Merton, R. C. (1974). On the pricing of corporate debt: The risk structure of interest rates. *The Journal of finance*, *29*(2), 449-470.

Molavi, M., & Jamalzade, S. (2015). On the correlation between financial ratios and capital adequacy across banking network (The Case of Banks Article 44).

Mossin, J. (1966). Equilibrium in a capital asset market. *Econometrica: Journal of the Econometric Society*,768-783.

Mwangi, F. M. (2014). The effect of liquidity risk management on financial performance of commercial banks in Kenya. *Unpublished MBA Project*.

Noroozi, A., Khakzad, N., Khan, F., MacKinnon, S., & Abbassi, R. (2013). The role of human error in risk analysis: Application to pre-and post-maintenance procedures of process facilities. *Reliability Engineering & System Safety*, *119*, 251-258.

Novickytė, L. (2010). Banking consolidation process and impact to financial stability. *Mokslas–Lietuvos ateitis/Science–Future of Lithuania*, *2*(2), 62-68.

Nwankwo, G. O. (1991). Bank management: Principles and practice. *Lagos: Malthouse press ltd*.

Olalekan, A., & Adeyinka, S. (2013). Capital adequacy and banks' profitability: An empirical evidence from Nigeria. *American International Journal of Contemporary Research*, *3*(10), 87-93.

Oluyemi, S. A. (1996). The implications for banks' profitability on implementing the riskbased capital requirements. *Lagos: NDIC Quarterly*.

Pasiouras, F., & Kosmidou, K. (2007). Factors influencing the profitability of domestic and foreign commercial banks in the European Union. *Research in International Business and Finance*, *21*(2), 222-237.

Paškevičius, A. (2013). THE COMPREHENSIVE PUBLICATION ON “COMMERCIAL BANKING: ANALYSIS AND EVALUATIONS”(the monograph by Dr. Filomena Jasevičienė in Lithuanian). *Ekonomika*, *92*(4), 164-168.

Peters, G. W., Byrnes, A. D., & Shevchenko, P. V. (2011). Impact of insurance for operational risk: Is it worthwhile to insure or be insured for severe losses?. *Insurance: Mathematics and Economics*, *48*(2), 287-303.

Ponte, D., & Simon, J. (2011). Scholarly communication 2.0: Exploring researchers' opinions on Web 2.0 for scientific knowledge creation, evaluation and dissemination. *Serials review*, *37*(3), 149-156.

Pukelienė, V., & Deksnytė, I. (2010). Currency crises: Models and their possibility in Lithuania. *Ekonomika ir vadyba*, (15), 206-211.

REINGANUM, M. Misspecification of Capital Asset Pricing: Empirical Anomalies Based on Unexpected Earnings and the Importance of Risk Adjustments. *Journal of Financial Economics (March 1981)*, 19-46.

Riches, G. (2002). Food banks and food security: welfare reform, human rights and social policy. Lessons from Canada?. *Social Policy & Administration*, *36*(6), 648-663.

Rolshausen, P. E., Akgül, D. S., Perez, R., Eskalen, A., & Gispert, C. (2013). First report of wood canker caused by Neoscytalidium dimidiatum on grapevine in California. *Plant disease*, *97*(11), 1511-1511.

Rosenberg, B., Reid, K., &Lanstein, R. (1985). Persuasive evidence of market inefficiency. *The Journal of Portfolio Management*, *11*(3), 9-16.

Rosenberg, B., Reid, K., &Lanstein, R. (1985). Persuasive evidence of market inefficiency. *The Journal ofPortfolio Management*, *11*(3), 9-16.

Ross, S. A. (1976). The arbitrage theory of capital asset pricing. *Journal of economic theory*, *13*(3), 341-360.

Scholes, M. (2010). *Regulating Wall Street: The Dodd-Frank Act and the new architecture of global finance* (Vol. 608). John Wiley & Sons.

Šenavičius, V. (2012). Lietuvos finansų rinkos priežiūros reforma. *Societal innovations for global growth [elektroninis išteklius]*, 612-621.

Sevil, G., &Özer, M. (2012). Foreign investors and noise trade in Istanbul stock exchange. International Journal of Business and Social Science, 3(4).

Sharpe, W. F. (1963). A simplified model for portfolio analysis. *Management science*, *9*(2), 277-293.

SharpeW, F. (1964). Capital asset prices: A theory of market equilibrium under conditions of risk. *journal offinance*, *19*(3), 425-442.

Shevchenko, P. V., & Wuthrich, M. V. (2006). The structural modelling of operational risk via Bayesian inference: Combining loss data with expert opinions. *The Journa l of Operational Risk*, *1*(3), 3-26.

Srikanth, H. (2011). Nature of Indian state: Reflections on dominant Marxist interpretations of Indian state.

Staikouras, C. K., & Wood, G. E. (2004). The determinants of European bank profitability. *International business and economics research journal*, *3*, 57-68.

Sulaiman, M. S., Hashim, H., Sampian, A. F. M., Madzhi, N. K., Azmi, A. F. M., Khairuzzaman, N. A., & Ismail, F. A. (2015). Statistical Discrimination of Latex between Healthy and White Root Infected Rubber Tree based on Dry Rubber Content. In *IOP Conference Series: Materials Science and Engineering* (Vol. 99, No. 1, p. 012024). IOP Publishing.

Taherinia, M., & Baqeri, A. (2018). The Effect of Capital Adequacy Ratio on the Ratio of the Bank Reserves Accepted in the Tehran Stock Exchange. *International Journal of Economics and Financial Issues*, *8*(1), 161.

Tanamas, S., Hanna, F. S., Cicuttini, F. M., Wluka, A. E., Berry, P., & Urquhart, D. M. (2009). Does knee malalignment increase the risk of development and progression of knee

osteoarthritis? A systematic review. *Arthritis Care & Research: Official Journal of the American College of Rheumatology*, *61*(4), 459-467.

Uddin, L. Q., Supekar, K. S., Ryali, S., & Menon, V. (2011). Dynamic reconfiguration of structural and functional connectivity across core neurocognitive brain networks with development. *Journal of Neuroscience*, *31*(50), 18578-18589.

Ülkü, N., &İkizlerli, D. (2012). The interaction between foreigners' trading and emerging stock returns: Evidence from Turkey. *Emerging Markets Review*, *13*(3), 381-409.

Yousefinejad, M., Ahmad, A., SALLEH, F., Rahim, R. A., & AZAM, H. (2018). The Mediating Effect of Information Asymmetry on IFRS and Foreign Direct Investment. *International Journal of Economics & Management*, *12*(2).

Žuk-Butkuvienė, A., Vaitulevičienė, D., & Staroselskaja, J. (2014). Capital adequacy (solvency) and liquidity risk management: analysis, evaluation, and possibilities for improvement. *Ekonomika*, *93*(2), 59-76.

Zeissler, A. G., & Metrick, A. (2014). JPMorgan Chase London Whale D: Risk Management Practices. *Yale Program on Financial Stability Case Study*.

Zhang, X., Matziari, M., Xie, Y., Fernig, D., Rong, R., Meng, J., & Lu, Z. L. (2018). Functional examination of novel kisspeptin phosphinic peptides. *PloS one*, *13*(4), e0195089.

Zhao, W., Cheng, Y., Yuan, M., & An, F. (2014). Effect of adsorption contact time on coking coal particle desorption characteristics. *Energy & Fuels*, *28*(4), 2287-2296.