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Risk Management and Performance of Conventional Banks in Pakistan. The Moderating Role of Information Disclosure and GDP

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Abstract: The research aims to investigate the moderating role of GDP and information disclosure in the nexus between Risk Management and Financial Performance. This research used annual data for the period 2010 to 2015. The data was collected from 25 commercial banks listed on the Pakistan stock exchange through a random sampling method. The study results were analyzed through correlation and Hierarchical regression. The results showed that CAR and Z-score have a positive significant outcome on the financial performance of banks, whereas NPL and CRR were found negatively correlated with the financial performance of banks. The results also demonstrated that both GDP and information disclosure have a moderation role in the association between risk management and financial performance.

Keywords: Risk Management, GDP, Information disclosure, financial performance, Pakistan.

1. Introduction

Currently, global financial institutions observed a vast breakdown of the globe. The universal collapse affected all kinds of companies specifically the banking industry was suffered a lot. Grove and Patelli [1] the banking industry were suffered and embrace bankruptcy. Likewise, [2, 3] explained that require to prepare a guideline of hard rules to deal bitterly with public anger. These monetary crises were due to numerous issues and focus on different clarifications. During the particular crisis-era, the risk management exposes, and the extreme defining issue got serious attention. That is why decided that risk management is an important device, serving the hope of the overall community as well as another investor. Risk management is known in banks as a kind of reliability and transparency. Due to this developing outcome of risk management in banks, all the banks are devoted to an important agenda of risk management to adoptive stability and smooth return. The purpose of every bank is to provide a basis of risk management to deal bitterly with the public vies and the owners' and investor's interests. The failure of risk management having numerous reasons, like the limited role of risk management section lack of timely prediction while loans are settled makes this matter with financial division and risk management. In the rules of risk management, this cause is giving to evade much attention on assets and reduce the instability of return. It has been observed that the worldwide financial crises did not influence the banking industry of Pakistan overall, nevertheless, it helped as a wake-up call to the banks and other Pakistani financial institutes. Such crises are due to the trade of simple instruments in the banking sector of Pakistan, which banks have no more liquidity as other financial institutes if the emerged economies. A little study has been found in the context of Pakistan in this area and several studies are available that risk management practices play a vital role in the smooth operations of banks. Likewise, Mahmoud and Ahmed [4] documented that banks perform the daily operation which is much risky by nature that is why banks need to have an effective and efficient strategy of risk management for their performance, also explain that NPL and cost per ratio have a statistically significant and negative correlation with banking routine that is the return on asset and return on equity. However, Mirakhor and Zaidi [5] asserted that robust risk management serves both public and private banks to reduce their banking risk similar skill can enhance the competitive ability in the market. And explained that NPL harms financial performance and reported that nonperformance bank loans will negatively affect the banks' financial performance. Also reported that the capital adequacy ratio has a positive and statistically significant effect on the bank’s financial performance. However, Romano, Ferretti [6] investigated that risk management positively affects the bank’s profitability. While Said [7] reported that operational and credit risk harms the financial performance of banks in the context of Pakistan. However, Sairally, Muhammad [8] documented that cost per loan and NPL ratios have negative and statistically significant effects on a bank's profitability, also explained that liquidity ratio and profitability have a negative relationship. While OMER, ALJAAIDI [9] explain that NPL and liquidity risk has a positive relationship with bank performance. The banking industry need to improve the balance between risk management and its development and confirming the governance and transparency and properly regulating the credited which providing the bank. With the accessibility of new business, there is a possible risk too, which needs to manage and handle. Banks are facing such kinds of risk i.e., capital liquidity, credit, and operational risk, which need to improve the quality of risk management practice of banks. In emerging economies, the banks are facing with credit risk, the increase of non-performance loans and provisions for loss doubtful debts ratio is a problem for banks policymakers. Likewise, the shortage of deposits also a problem for the decision makers of the banks, liquidity the more liquidity keeps away the banks form earning and the growth maximization. In banking industry, the proper allocations of fund is a serious challenge for decision makers. Therefore, the division of bank risk is related with the capital, operation, credit and liquidity. In the context of Pakistan, a number of studies conducted on risk management and financial performance, but none of the study previously conducted to used GDP and information disclosure as mediator or moderator, keeping in mind the novelty for such study that will use the moderator or mediator in this context. Additionally, this analysis is use same kind of variables as Z-scoring like credit risk measure which not previously evaluated in same context. The analysis is interesting in the evaluation of data this the model is endorsed the particular model that not used to test whether the data supports fixed, random and simple OLS model.

2. Literature Review

Many previous studies on risk management and performance of conventional banks in Pakistan. There is a strong race in banks crosswise the region. Banks follow various policies in terms of their evidence and stockholder disclosure which have somehow influence the economic performance. Thus, a study needs to be shown to widely analyzed the relationship of risk management issues with the bank’s financial performance in the presence of moderation variables i.e., information disclosure of the bank and GDP of the country. The term risk has been defined in different meanings by different researchers. Risk is taken for involvement in situations where a business wants more profit. The managers undertake risks to provide a chance for the business to earn more profit. According to a well-known saying that “More risk more gain” and “No risk No gain”. It means that without risk there is no achievement in life or a business. Risk is generally related to the probability of a negative result. One of the most important business decisions makings includes the idea of connecting risk and return from a project. Risk further implies an uncertainty of future return. If a businessman wants to earn more, he/she has to take a bigger risk. Risk has many types which are default risk, business risk, insurance risk, sovereign risk, and liquidity risk, and so on (The economic times, 2015). Management of risk is important to the field to be considered in any business organization, whether it is an ordinary or banking sector firm. Nowadays most organizations are emphasizing risk management more than other fields of business as it is directly related to profit and loss for a business. Banks are one of the riskiest businesses among many other businesses. The banks use the portfolio of risk management techniques to foster the trust of the clients and deliver results in terms of profit. While, Omasete [10] observed that customer claims are also a big part of the risk to the banking institutions as this can be a huge amount if measured, so the author suggested that there should be a proper evaluation of such claims to avoid risk. At the same time, it is very important to properly recognize the risk and use all measurable models and techniques to better deal with the situations and comprehend a dynamic mechanism for the purpose. However, Mikes and Kaplan [11] asserted that insurance agencies have improved their focus on risk management. Likewise, Alshatti [12] proposes that there has to be vigilant finding, by the management of banking, about risks that will keep away from immoderate losses in settling claims. It follows that risk control is a vital element in improving overall financial performance [13]. The imperative function of an insurance organization is its potential to distribute risk throughout special participants [14]. In many definitions the term has been somehow explored differently, that is why it is an issue that needs to properly mitigate or avoided to get the desired results in the future in terms of profit, growth, and efficiency. The problem in these definitions is that this definition exempts focusing on the present situation of a business which may be made strong to bear the future risk. Risk is a probable situation, which may or may not happen. In other words, the risk is a probability situation and by probability, it is meant that something will happen or will not happen.

According to a famous definition “Risk cannot be ignored fully or it is not something that can be eliminated, but it can be diversified and reduced. This means that managing risk mainly means that how to deal with the risk. In other words, management of risk is the process of risk management by identifying, assessing, and analyzing risks and applying tools to control the risk. Risk further permits a business to be aware of the current opportunities that are present in the market. Management of risk is the well know how relevant factors like the bank's diversification strategies to comprehend the growth. Risk management shows different ways of diversification of risk associated with any business decision. It further shows different ways of identifying risk in advance. Risk is different in different kinds of businesses, or it varies from business to business, company to company, and is different for political settings as well. The risk depends on the spirit of the one who is going to make a business plan and study all the relevant risks with that decision and carefully make a plan to diversify the potential risk associated with that decision. However, Ewald [15] has also explained that there is no risk in reality and no business decision is risky in itself, but on the other side, risk depends on how a business decision-maker analyzes it. Similarly, Willet, Hayes [16] have defined the risk in other words as the actualized ambiguity that concerns the occurrence of an event, which is not desired”. Risk is inherent in every field of life and could be linked with every decision that is made by anyone. Operational risk affects a particular company or an enterprise, while financial risk can affect the overall performance of corporations in the financial system. A firm’s value is highly influenced by both these risks. The working environment of banks is very important to observe in this regard [17]. There is an effect of Credit risk management on bank revenue and credit risk management is not dealt with properly [18, 19]. The framework for risk management needs to be extended to avoid any situation in which the company faces a financial crisis [20, 21]. Adherence to Islamic Sharia is the biggest challenge that is faced by Islamic Banks [22]. However, Beck, Lash [23] and Cairncross and Cairncross [24] have presented the application of causality relationship to various factors that may be interrelated in banking organizations, and space and time should be reduced when risk management is a matter. In the successful management of risk, Risk identification plays a vital role. But for this, the managers who will undertake these activities should be properly trained and should be experts in doing so. This is done so because, in banking organizations, the possible risk cannot be identified in advance, and need the expertise to handle. Therefore, banks need to prepare themselves every time in dealing with risks. All the roles, duties, and responsibilities in the bank must have provision for the identification of risk in difficult times [25]. It is also important for a bank to keep in view the strategies and weaknesses of other banks working around as this will help the bank in the identification of risk. Therefore, a bank needs to develop strategies and tactics for risk identification. The assessment of the likelihood of risk is the severity it will have [26]. For this purpose, there are many techniques available for risk assessment. Some quantitative techniques might help in the assessment of risk and for this purpose; there should be a proper team that should continuously study these techniques. The global economic crisis in the US in 2007 and its negative consequences on the economic market have pushed the capital management crisis in almost all of the financial institutions with a special impact on commercial banks. In countries based on a market where economic activities are dominant, banking organizations have faced a shock in their liquidity and capital gain status because of the unpredicted reduction in the financial market as well as an experience of credit demise in the financial industry. This caused most of the bank illiquid and few of them stopped their operations [27]. Risks at microeconomic levels like new risks of new competitors should be dealt with instantly. Managing risk progressed from a strict activity by banking, which starts from loan quality to a very difficult set of instruments and procedures in the current financial environment. This uncovers the fact that an organization will be successful if it has the capabilities to predict the risk but not wait for the risk to come. While, Rejda and McNamara [28] has also defined the management of risk as a methodical procedure for evaluation and identification of exposure to loss by an individual or an organization, and for implementation and selection of most suitable methods that are designed for meeting with such exposures. The procedure includes management, measurement, and identification of the risks. Risk management objectives involve the reduction of losses that occurs from foreign exchange, minimization of cash flows volatility, increment in profitability, protection of earnings fluctuations, and survival assurance of an organization [29]. As suggested by Githinji [30] insurance companies heavily borrow from the process of risk management. According to the researcher, the process of risk management includes four different steps: examining the possible losses, valuating possible losses, choosing techniques that are appropriate for exposures and implementing and treating loss exposures as well as administering the risk management program. A firm's financial performance could be calculated with the help of assessing the profitability of a firm, it reflects the liquidity and solvency. The profitability of a firm shows the degree to which an organization generates profit from its resources used for this purpose. The profitability level of a firm indicates its financial performance. Similarly, Zenios, Zenios [31] argued that analyzing profitability mainly focuses on the relationship between expenses and revenues and profit level relative to investment size through the utilization of ratios of profitability. Similarly, Rakočević, Benković [32] have argued further that by proper management of risk, the firm can increase its profit which further leads to an increase in the firm's value and helps to increase the level of trust of the shareholders. Standard and Cole, Giné [33] have identified that bad management of liquidity, under-reserving and underpricing, governance and management issues, high patience for risk investment, problems linked to quick growth, and makeup-gradation into activities that are not important and usually cause of failure and financial crisis insurance firms. A lot of studies have also been conducted to keep focusing on difficulties that are arising from bad debts, rather than for developing a legal and regulatory framework for control and prevention of bad debts [34]. According to Cuthbertson and Nitzsche [35] technology of managing risk has been reconditioned from the past several years. Other appropriate steps involving monitoring, are important to mitigate or control the risk [36]. For this purpose, the Bank [37] (Bank, Nepal Rastra) i.e., a central bank, has distributed rules that attain the attention of the general public towards governing the application of lending practices and procedures within the banking institution. Banks management mainly aims to maximize profits that are expected by considering its volatility, variability, or simply risk. This is usually called active management of the risk for the purpose to get the results that are desired. Managing risk is, therefore, an effort to decrease risk in the profit that has lowered the potential of the value of the wealth of the shareholders. Many researchers such as [38, 39] and Froot [40] have mentioned various reasons for adopting policies of managing risk actively and also suggested to the managers to focus on these policies. While, Oldfield and Santomero [41], conducted research and found that the recent review of the literature shows four different foundations for managing risk.

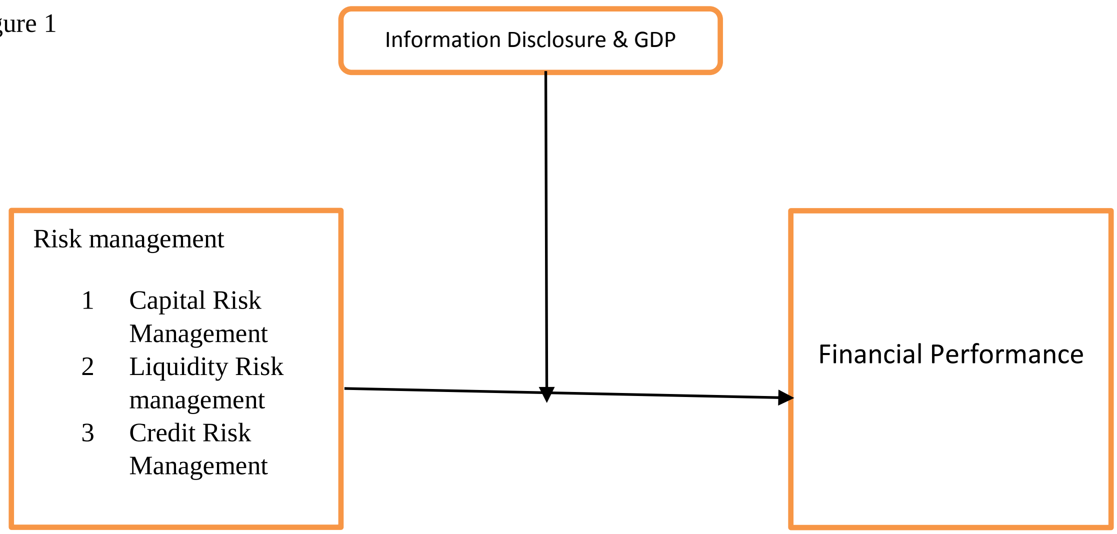
Likewise, Merton [42], has found that the main feature of a financial institution such as a bank is hedging of risks. Though, not all inherent risks prevail directly there in their business; some could also be transferred or traded while others might be removed. Propriety positions are included in this, which are established due to their unexpected return and risks. When the risk is absorbed in these positions, the management of risk activities needs monitoring of the activities of business return with possible risk and is considered as part of the business. Banking organizations need to accept such risks that are part of the array of the bank's value-added services [41, 43]. While Franck and Krausz [44] have investigated that it is a matter of fact that the securities market supports the banking industry to prevent it from liquidity while the stock exchange is considered as the lender of the last resort for the banking industry. Most of the researchers argue that extra liquid markets are better than markets that are not as liquid. Likewise, Mainelli [45] has investigated that liquid markets have unique flexibility, tightness, and deepness. However, Ratti [46] also suggested that environmental dissimilarities could have a positive effect on the income that indicates fewer ways to face the risk. However, Kim and Santomero [47] have investigated that fruitless capital ratios indicated limited insolvency risk of the bank. While Gisemba [48] analyzed the financial institutions for knowing the relationship between risk management and financial performance. They predicted their results based on co-relation and fixed and random effect regression. The results demonstrated that operational risk has a significant impact on financial performance. However, Shafiq and Nasr [49] look around the current risk control methods that are implemented by the Pakistani professional banking institutions. Likewise, Khalid and Amjad [50]performed research on the risk control in Islamic finance in Pakistan. By using the same model recommended by Al-Tamimi and Al-Mazrooei [51] of risk control methods. They also elaborated on the relationship between non-performing loans and cost per loan (LPL) with financial formula in their study and found that both these ratios have a negative significant effect on the financial performance of the financial institutions. Moreover, Otieno, Nyagol [52] study different forms for knowing the relationship between credit risk management and financial performance. According to him, risk management plays a vital role to increase the ultimate performance of any financial institution. The managing of risk for the owners of the firm saves agency costs because, with the help of reducing returns variability of the companies, the management of the company is working for the wealth of the shareholder. The motivation of the managers to incorporate risk management has empirically been examined in various research studies showing a negative impact [53, 54]. Research conducted by Tufano [55] showed a positive impact on the gold mining industry located in the United States. While Santomero and Hoffman [43] have argued that bankruptcy cost is much more necessary in industries that are regulated and whereas losses are larger. This theory gives offers an important rationale because firms will be busy managing risk. The risk management process is varying. Most of the firms have a concentration on continuously improving the risk management processes to foster better and greater results, to ensure safety to the stockholders [55]. The other researchers have addressed the different risk which is relevant to qualitative and non-financial matters [56].

While financial performance is affected by the grouping of issues fronting the organizations, some previous studies give evidence as to why organizations should concern themselves with risk management. Likewise, Vaughan-Williams [57], provide a convincing motive for risk management by organizations. According to him, risk management plays a vital role to increase the ultimate performance of any financial institution. His results show us that the non-performing loan ratio (NPL) has a negative significant relationship with financial overall performance. He used simple OLS to predict the outcomes of the association between risk management (RM) and financial performance (FP). He also observed that the capital adequacy ratio (CAR) has a significant positive relationship with financial performance. Besides the study evidenced that liquidity ratio has a negative insignificant impact on the financial overall performance of the firm. While Nocco and Stulz [58] asserted that risk management can affect the profitability of a firm. They used penal regression to determine the connection between risk management and financial performance. The effects anticipated that non-performing loan (NPL) is negatively significantly associated with financial performance. Additionally, they found capital suitability has a significant positive significant effect on the banks' return on assets (ROA) and return on equity (ROE). However, the study evidenced a negative relationship between liquidity ratio and financial performance. The results are very much consistent with previous studies.

3. Theoretical Framework and Hypothesis Development

After the review of relevant literature, the following theoretical framework has been developed.

Figure 1



H1: In Pakistani conventional banks CAR and financial performance having a positive and significant relationship.
H2: Information disclosure and GDP have a controlling outcome on the association of CAR and the financial performance.
H3: NPL ratio and financial performance have a negative significant impact.
H4: Information disclosure and GDP have a moderating outcome on the association between NPL and financial performance.
H5: The Z-scoring ratio and financial performance have a positive significant impact.
H6: Information disclosure and GDP have a moderating effect on the connection between the Z-scoring ratio and financial performance.
H7: CRR ratio having a negative and significant impact on firm financial performance.
H8: Information disclosure and GDP have a moderating effect on the relationship between CRR and financial performance.

4. Research Methodology

4.1 Research Design

We collect the data of 34 listed banks from the banking sector on the Pakistan stock exchange which includes all commercial, conventional banks in which 25 banks are randomly selected. Data for the independent, moderating, and dependent variables have been obtained from the annual reports, the beauty of statistics, and the state bank site for the period 2010 to 2016.

Bell and Bryman [59] contended that the study design is the key outline used for the collection of data and its analysis. However, Saunders, Lewis [60] claimed that for good understandings of the association among numerous variables for purely discovering and amplification the matter, the empirical study is quite appropriate. However, Collis and Hussey [61] asserted that a case study method is used while understanding a specific situation, and the longitudinal research is assumed to know the impact of one variable over another variable over diverse periods. Moreover, Saunders, Lewis [60] investigate that in the cross-sectional technique of many observations are collected at a precise time and studied the nature and the association through quantitative data. The current study will use a large size of sample, for the motive that will imitate the entire population as a factual representative.

We used econometric models and techniques for the analysis of data. We use three historic trends about quantitative research that is test and measurement procedures, statistical analysis, and research design. Furthermore, we use the analysis technique to confirm alignment with statistical data and methodology collection. This study is correlational, explanatory research. The correlation and effect of the independent variables and the effect of the interactional term on dependent variables are investigated in this research. In this data analysis regression and correlation were used to found the desired outcomes and to evaluate the hypothesis.

4.5 Correlation

Correction is used in the data analysis of this study, the correlation between independent variables that is risk management, moderating variables i.e., information disclosure and GDP, and a dependent variable that is financial performance. Pearson product-moment correlation coefficient is the proxy of the linear correlation between two dependent and independent variables, giving a value between +1 and −1 comprehensive, Positive correlation denote by1, while zero represent no correlation, however, minus 1 represent the total negative correlation. The population is commonly showing when the Greek letter ρ (rho) may be applied in Pearson's coefficient correlations.

4.6 Regression Analysis

Regression analysis is an arithmetical method for assessing the nexus between variables. Multiple regression was applied to found the nexus between dependent and independent variables to specify the direction of the association. In this study langrage multiplier test has been used to find whether the data support simple OLS or Fixed effect and random effect model. Some econometric techniques are used to find out the association between dependent and 1 or more independent variables. Regression analysis shows us the value of dependent variable change when anyone independent variable brings changes and remaining independent variables are fixed.

It reflects the level to which a group of variables is capable of expecting a precise result. A statistical method through we find out the nexus between one dependent variable and independent variable [62]. Multiple regression was used to find out the impact of moderating and independent variables on the dependent variable.

5. Empirical Analysis

Heteroskedasticity test: Cook-Weisberg test has been conducted to investigate the Heteroskedasticity problem in panel data, the probability value gotten is 0.621 which is insignificant at a 5% probability level which shows no Heteroskedasticity problem in the data. Wooldridge test for serial correlation (Autocorrelation), the value is insignificant at a 5% probability level than no auto-correlation in the independent variables. The value of heteroskedasticity is 0.235, which indicates no auto-correlation.

Table 1: Correlation

Variables	R0A	CAR	NPL loan ratio	CRR	Z-score ratio	GDP	Info Disclosure
R0A	1						
CAR	0.233	1					
NPL	-0.284	-0.111	1				
CRR	-0.08	-0.021	0.024	1			
Z-score ratio	0.324	-0.419	-0.196	-0.02	1		
GDP	0.213	0.123	0.145	0.475	0.311	1	
Info disclosure	0.201	0.325	0.322	0.255	0.222	0.355	1

The correlation has been interpreted as per the guideline provided by [63]. He suggested these ranges of the correlation significance level. So, based on these suggestions the interpretation has been performed. The above correlation table CAR has a moderately significant impact on ROA. The second ratio of NPL has a negative significant correlation with financial performance. CRR insignificant negative correlation with banks, financial performance. Z-scoring ratio results also indicate a positive significant correlation. The GDP and information disclosure also predicting a positive significant correlation with financial performance. The table above represents the correlation of the set of independent and moderating variables with dependent variables. The correlation tests the co-movement of the two variables and identifies the strength of the association between two variables. The results demonstrate that the capital adequacy ratio is positively correlated with banks' return on asset, which implies that as this ratio enhances than the firm's financial performance tends to increase. The outcome also shows the negative statistically significant correlation between non-performing loans and the financial performance proxy of banks. It regulates that as the level of non-performing loans rises, it reduces the bank's financial performance. But the Cash reserve ratio, monetary results show a negative and statistically insignificant association with banks. This means that as banks cash reserve the amount increase, its financial output continues to decline because of so many but the cash reserve ratio, the financial cash funds that a large portion of the return can be generated by the utilization of cash resources. The outcomes also specify a positive significant correlation between the Z-scoring ratio and financial performance, which proposes that as the bank's z-scoring ratio surges then the financial performance tends to decline. The GDP and information disclosure also expecting a positive significant correlation with financial performance.

Regression Analysis for the Moderating Effect of GDP the Nexus Between CAR and Financial Performance.

Table 2: CAR, GDP, ROA

Models	Beta	Std Error	t-Value	P-Value

Model .1				
CAR	0.345	0.096	3.56	0.001
Model.2				
CAR	0.314	0.108	2.89	0.031
GDP	0.152	0.059	2.57	0.044
Model.3				
CAR	0.213	0.092	2.31	0.046
GDP	0.12	0.052	2.28	0.045
CAR*GDP`	0.175	0.081	2.15	0.047

The finding of the outcome shows the moderating effect of GDP the nexus between CAR and return on asset. The results signify that CAR has a positive significant impact on firm financial performance ($\beta = 0.175, P \leq 0.05$). The interface time when entered in M-3 it formed a β $value$ is significant, which is the coordination of moderation, that the interaction term of beta is significant.

Table 3: CAR, GDP, ROA

Models	R^2	R^2	ΔF.Value	Δ F.Value
M-1	0.28	-	7.56	-
M-2	0.37	0.09	13.63	6.07
M-3	0.51	0.14	25.52	12.19

The M-3 term of interaction shows a significant variation in R-square that shows the moderation role of GDP in the association of ROA & CAR.

Table 4: NPL, GDP, ROA

Models	Beta	Std Error	t-value	P-Value
M-1				
NPL	-0.215	0.075	-2.86	0.041

M-2				
NPL	-0.175	0.069	-2.51	0.045
GDP	0.136	0.061	2.21	0.047
M-3				
NPL	-0.126	0.059	-2.12	0.048
GDP	0.123	0.058	2.12	0.048
NPL *GDP	0.118	0.057	-2.05	0.049

The outcome of the regression analysis to find out the moderating role of GDP in the connection between non-performance loans and return on assets in Pakistani Banks. The analysis shows the negative and significant relationship between NPL and ROA of banks. The outcomes also specify that the moderating variable GDP has a positive and statistically significant effect on ROA and the collaboration display significant Beta Value $\beta = 0118 \leq P \leq 0.05$ which suggests that GDP significantly moderates the nexus of Non-Performance Loan and Return on Assets.

Table 5: Non-Performance Loan, GDP, Return on Assets

Models	R2	R2	Δ F. Value	Δ F. Value
M-1	0.25	-	7.65	-
M-2	0.34	0.09	14.98	-6.45
M-3	0.42	0.08	22.72	-7.74

By using hierarchical regression, it changes the R2 of the models. These changes specify the significant moderating role of GDP in the association of Non-Performance Loan and Return on Assets.

Table 6: Z-Score, GDP, ROA

Models	β(Beta)	Std error	t-value	P-Value
M-1				
Z-Score	0.213	0.06	3.521	0.001
M-2				
Z-Score	0.182	0.063	2.85	0.041

GDP	0.11	0.047	2.31	0.046
Model.3				
Z-Score	0.131	0.059	2.21	0.047
GDP	0.105	0.05	2.1	0.048
CAR*GDP	0.12	0.054	2.22	0.047

To find out the moderating role of GDP in the association between Z-score and return on assets we use hierarchical regression. With the firm ROA, Z-score has a positive and statistically significant effect. The outcomes also validate that the interface term of Z-Score and GDP has a Significant Beta value $(B = 0.120, P \leq 0.0\ )$ which verify the significant moderating role of GDP in the nexus of Z-Score and ROA.

Table 7: Z-Score, GDP, ROA

Models	R^2	R^2	ΔF Value.	ΔF. Value
M-1	0.31	0	9.565	0
M-2	0.42	0.11	15.678	-6.111
M-3	0.56	0.14	28.567	-12.889

The value of R-square raises du tot the interaction term of the Z-Score and GDP interaction model, which indicates the GDP does moderate the associations of these 2 variables.

Liquidity and financial performance.

Table 8: CRR, GDP, Return on Assets

Models	Beta	Standard error	t-value	P-Value
Model.1				
CRR	-0.081	0.048	-1.67	0.072
Model.2				
CRR	-0.67	-0.582	-1.15	0.091`
GDP	0.123	0.061	2.01	0.049
Model.3				

CRR	-0.52	0.429	-1.21	0.087
GDP	0.102	0.048	2.1	0.048
CRR* GDP	-0.028	0.022	-1.28	0.078

Table 10 shows that CRR has a negative effect on the firm return on assets, due to an increase in this ratio will make the cash idle. That is why the idle cash can influence the earning of the firm. The insignificant beta denotes by interaction term, which moderator GDP does work but the moderating impact is insignificant due to the beta is insignificant.

Table 9: CRR, GDP, ROA

Models	R^2	R^2	F.Value	F.Value
M-1	0.34	0.00	9.565	0.000
M-2	0.36	0.02	11.678	2.113
M-3	0.41	0.05	14.567	2.889

The above table shows that from M-1 to M-3 the R^2 has different but not significant, which indicates that GDP has an insignificant moderating role in the association of ROA and CRR.

Table 10: CAR, Information Disclosure, Return on Assets

Models	Beta	Std error	t-value	P-Value
M-1				
CAR	0.345	0.096	3.56	0.001
M-2				
CAR	0.31	0.112	2.76	0.032
GDP	0.136	0.061	2.21	0.047
M-3				
CAR	0.203	0.091	2.23	0.046
Info disc	0.13	0.06	2.16	0.048
Info disclosure *CAR	0.183	0.087	2.1	0.048

The findings of the analysis show the moderating influence of info disclosure on the association between return on assets & CAR. The CAR shows a positive and statistically significant impact on firm financial performance

$(\beta = 0.183, P \leq 0.05)$. The term of interaction in M-3 shows the value of beta is significant, which is the direction of moderation, that interaction term of beta is significant.

Table11: CAR, info disclosure, ROA

Models	R2	R2	Δ F. Value	Δ F. Value
M-1	0.28	0	7.56	0
M-2	0.39	0.11	14.83	0
M-3	0.54	0.15	26.52	0

The term interaction shows that the change R^2 is significant in M-3 which reported the moderation role of information disclosures in the nexus of CAR and ROA.

6. Conclusion

This research aims to investigate the moderating role of GDP and information disclosure in the association between risk management and financial performance for the period 2010-2015 in the context of Pakistan. To empirically test we used different ratios that as capital adequacy ratio, NPL ratio, Z-Scoring ratio, and liquidity ratio. The financial performance is measured by ROA and the moderating effect is measured through GDP and information disclosure. In the conventional bank of Pakistan, the CAR has a positive and statistically significant impact on financial performance. The outcomes also confirmed the negative effect of non-performance loan (NPL) and liquidity ratio, which observed that as non-performing loans of these banks rise their financial performance inclines to reduction. Liquidity also reflects the adverse effect of financial performance meaning that as liquidity levels increase, financial performance decline as cash reserve become idle. The outcomes also indicate that the significant and positive impact of the Z-score in the firm financial performance was the same as the outcomes recorded by the moderating significant role of GDP in the firm financial performance on the Z-score and liquidity ratio. Moreover, information disclosure was found a significant moderation role in the connection of CAR, Z-Score with financial performance, and was found an insignificant moderating role in the affiliation of non-performance loan & liquidity with financial performance. The studies reveal mostly the nexus between risk management and financial performance. Many scholars, having various opinions about the nexus between risk management and financial performance. This research predicted that risk management is very vital to enhance the financial performance of banks in Pakistan. However, the research indicates that the capital Adequacy ratio has a positive effect on financial performance in Pakistani banks. The same kind of relationship was documented by [64]. The study predicted that NPL has a negative significant effect on the financial performance of banks in Pakistan. These results are in line with the findings of previous researchers, i.e., Ben Selma, Abdelghani [64] who also found a negative relationship between NPL and financial performance. GDP has a significant moderating role in the relationship between NPL and the financial performance of conventional banks in Pakistan. The Z-score ratio has a significant effect on the financial performance of conventional banks in Pakistan. Similarly, the results demonstrated a significant moderating role of GDP on the relationship between Z-score and financial performance. The results demonstrated that CRR has a negative effect on the bank's financial performance as the corresponding T-value is negatively significant. The results found that information disclosure plays a moderating role in the relationship of Risk Management proxies (CAR, NPL, Z-score, and CRR) with financial performance. CAR has a positive effect on financial performance FP, so it is advised that the Bank should improve the ratio. NPL has a negative significant effect on financial performance, so based on the results, it is suggested that the bank should minimize this ratio as much as it can. Z-

Score was found to have a positive significant effect on financial performance which means that banks should increase this ratio as it directly affects the financial performance. Liquidity showing a negative effect on financial performance. it is therefore suggested that banks should keep a low level of liquidity and use the cash efficiently not to keep it idle [65]. The results found that in most cases GDP and information disclosure showing a moderating role as the banks should practice more information disclosure practices. Similarly, researchers if conducted in the future are advised to use the data of both conventional and Islamic banks or make comparative studies of both categories of these banks and then apply statistical tools. Moreover, similar studies can use the moderating role of corporate disclosure in the relationship between risk management and financial performance.

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