



THE ROLE OF IMPARTIAL ADMINISTRATION IN FINANCIAL SECTOR PERFORMANCE: A COMPARATIVE STUDY OF LATIN AMERICA AND SUB-SAHARAN AFRICAN COUNTRIES

SADIK ADEN DIRIR¹

Abstract

Emerging nations are often distressed if their current administration and governance do not align with social and national needs. Among these worries, there is the fear of public funds misconduct and corruption in the nation's major institutions. Indeed, inadequate administration results in embezzlement of funds, tax evasion, and low bureaucratic quality in all sectors. This study was undertaken to address the role of impartial administration specifically in the financial sector. The research considered a sample size composed of 12 countries from Latin America and Sub-Saharan Africa in the period of 2000 to 2021. The net interest margin was considered a proxy for financial performance measurement. Additionally, an ordinary least squares and quantile regression was performed to record the effect of the variables on financial sector performance. Within this context, the findings exhibited different outcomes for these regions. For instance, in the Latin America region, the results revealed that public sector theft, bureaucratic quality, corruption level, local government index, and inflation have a negative impact on the performance of the financial sector while impartial public administration demonstrated a positive impact on financial performance. On the other hand, the Sub-Saharan African region demonstrated that bureaucratic quality, local government index, and inflation have a significant and positive impact on financial performance, whereas executive embezzlement and theft, corruption level, and government final expenditures were shown to negatively influence financial performance. Finally, the study's findings provides insights into the policies and strategies to implement in order to support the financial framework.

JEL classification: G15, G18, G32

Received: 21.07.2023

Keywords: Financial performance, Impartial administration, Developing countries

Accepted: 17.08.2023

Cite this:

Aden Dirir S. (2023) The role of impartial administration in financial sector performance: A comparative study of Latin America and Sub-Saharan African countries. Financial Internet Quarterly 19 (3), pp. 16-30.

© 2023 Sadik Aden Dirir, published by Sciendo. This work is licensed under the Creative Commons Attribution-NonCommercial-NoDerivatives 3.0 License.

¹ University of Djibouti, Djibouti, email: sadikaden1999@gmail.com, https://orcid.org/0000-0002-8159-5442.

INTRODUCTION

Today's world is not without corruption. There are indications of its existence in almost all nations. It is not overstated to claim that it can be found in all political institutions, in diverse forms, and at all phases of economic growth (Cecchetti & Kharroubi, 2019). The International Monetary Fund identifies corruption as the largest impediment to economic prosperity and financial development because it weakens evolution by undermining the institutional basis on which economic progress relies and distorts the judicial system. The major social issue of corruption has an impact on every aspect of a country but especially the financial sector (Jahanzeb & Aziz, 2017).

According to Afolabi et al. (2019), misconduct in public administration raises the cost of credit for businesses and governments in developing nations. Corruption can also have an impact on stock price drivers such as a company's long-term expansion plans. Developing nations are rapidly opening their financial sectors to the rest of the globe, while industrialized nations are investing more money in emerging markets (Fetai, 2018). Political forces are seen to have a greater impact on emerging economies. According to El-Deeb et al. (2022), a developing economy is a nation where governance is at least as important as economics. The framework that regulates transactions of commodities or services is known as the transaction system of governance and is one of the financial implications. Marketplace and firm-level transaction systems and procedures are categorized by transaction cost theory (Nguyen, 2020). Costs associated with market transactions include: (a) those associated with researching product quantity, value, and affordability; (b) those associated with bargaining and creating contracts; and (c) those associated with executing agreements, notably legal fees. The agency theory underlies enterprise trading costs, which are expenses related to directing, supervising, and managing agents' operations inside a corporate structure. Analyses of market and company transaction costs are used to choose a transactional policy framework (Amanze & Onukwugha, 2017).

In accordance with (Enofe et al., 2017) a wellsustained financial sector makes it simple for business owners to obtain funding so they may realize their plans and spur economic expansion. Therefore, the development of the financial sector is necessary for the creation of new ideas. Kolapo and Olaniyan (2018) have abundantly shown how important the financial industry is to the growth of any country. Because of this, it is essential that we understand which factors influence how well the financial industry performs.

Taebi Noghondari, A. & Taebi Noghondari, A. (2017) used empirical proof to demonstrate whether

inflation has an impact on the way the financial system performs by changing how creditors and consumers behave. But corruption also has an impact on inflation. (Phuong & Wong, 2022) suggested in one of their studies that the government exploits inflation as a strategy to fund imbalances, which are frequently brought on by endemic corruption. Consequently, corruption also hinders the performance of the financial industry. In a corrupt system, creditors are generally less hesitant to lend while borrowers are more inclined to borrow, anticipating or even preparing to default. This leads to negative selection, which distorts the lendingborrowing mechanism (Olatunji & Adekola, 2017).

The impact of impartial administration on company performance cannot be anticipated or described by a solitary-existent theory. Contrarily, misconduct in a firm which is a component of impartial administration may have abiding negative effects on a company's financial success. For example, the loss of important resources like corporate success and image, the effective use of funds, and the drive for growth are all possible consequences of corruption (Song et al., 2021). These expenses might reduce or eliminate profits for businesses and lead to an inadequate valuation of personnel, equipment, and creativity. Companies are actively discouraged from making investments for productivity and growth improvement, as Van Vu et al. (2018) noted.

Additionally, some contend that inadequate administration hinders the introduction of new businesses since established ones frequently make use of their corrupt ties, and corrupt government officials work to prolong transactions in order to obtain additional bribes from those who utilize public services (Lemma, 2015). As a result, public funds are redistributed to those giving the largest bribes rather than to those who can provide the greatest service for public funding (Chen et al., 2016). One of the most widely prevalent viewpoints in emerging markets is that corruption might not have an impact on the effectiveness of enterprises since paying bribes is just a necessary entrance fee for businesses to play by the rules and help them survive in their surroundings (Enomoto & Yamaguchi, 2017).

Numerous economists think that foreign products and investment inflows can be extremely important for the growth of capital markets in the context of corporate domination by the financial elite. Thus, the established elite have no alternative but to repeal pointless capital controls and assist the institution's needs for a more competitive local market in order to thrive against the fierce global competition (Koch-Bayram & Wernicke, 2018). In another study, Higgins (2018) emphasizes the necessity for external stimulation from the court system, public bodies, or other market participants for the growth of financial markets. He makes the claim that financial sector reforms are more possible as a result of the convergence of global capital markets.

Previous papers have not considered the link that may exist between a sound governance framework and the financial system prosperity for a given region. Most of the studies shed light on good governance with economic development, income disparity, and foreign direct investment. Accordingly, within the context of the aforementioned issue, this study is addressing the role of impartial administration on the financial sector performance in Latin America and Sub-Saharan African countries. It is answering the question of how bureaucratic quality, corruption in all its forms, and local government initiatives contribute to a well-developed financial framework. The study's period covers the last twenty-one years - from 2000 until 2021. In the investigation, OLS regression and Quantile regression analysis were performed. Finally, the purpose of this study is to identify which institutional indicators, and to what extent, affect the performance of financial sector performance. The results are anticipated to have significant policy repercussions for investors, businesses, nations, and decision-makers in economic policy. The study will additionally provide insights on which policies and strategies to implement in order to support the financial framework.

Review of the literature

Proceeding the first wave of measures that occurred in the 1990s, with the deregulation of lending rates as well as the ownership of government financial institutions, the financial industry in Africa and Latin America has seen a very significant increase (Campbell, 2007). Financial systems in both regions have seen significant transformations as a result of the reduction of numerous obstacles to entry and exit in the sector, as well as increased openness and transparency, and strengthened oversight since the industry's crisis scenario in the 1980s (Blevins et al., 2022).

Existing research on the African and Latin American financial industries is overly reliant on comparisons with highly sophisticated economies throughout the world. Financial industry analyses, for instance, stress the industry's limited space, the problems of meeting legislative capital levels, and the shortcomings of banking monitoring (Puatwoe & Piabuo, 2017). In terms of financial markets, various articles emphasize the relatively small size of both regions' stock markets, inadequate liquidity, and underdeveloped infrastructure facilities (Yusuf et al., 2020). In accordance with Rewilak (2018), this assessment of the financial market emphasizes advancement rather than comparison, although it also considers the socioeconomic framework that governs the organizations and the market's function. Starting with African countries, Africa has 16.3% of the earth's population but just 2.9% of the global GDP. Africa has long been known for its reliance on agriculture and raw resource exports. Until the 1980s, Africa had encountered a slew of obstacles to the progress of its banking systems. Africa has, since the 1980s, faced a myriad of challenges affecting the development of its financial sectors. Between the 1970s to 1980s, economic and geopolitical uncertainty created an unexpected banking collapse, worsening monetary sustainability, and budgetary deficits (Park & Mercado, 2015).

On the other hand, advancements in Latin American countries have occurred amid the backdrop of current economic shocks and financial instability, simultaneously, an increase in overseas investment in the continent. International banks' involvement has grown dramatically over the last years, with the US, Canada, and European countries being the primary participants (Alvarado et al., 2017). The takeover of domestic financial institutions by overseas entities has been a major driver of financial industry development in Latin America. Without question, international investors may assist the region's underdeveloped financial banking institutions, and banking concentration may provide certain advantages to consumers, such as elevated services (Dutta et al., 2017). Nevertheless, major policy issues have been raised about the possible monopolistic tendencies of listed banks in supersaturated markets, as well as the impact on their action and revenue. Conflict, like some other anti-competitive behaviors, can create anomalous bank performance and eventually affect customers through tactics such as elevated lending rates, credit restriction, and degradation of financial products (Shakib, 2016).

In one of their studies Kasasbeh et al. (2018) state that in Latin America and Africa, there is one common phenomenon which is the misconduct of administration that compromises the financial sector performance. Among these forms of wrongdoing is corruption, which refers to illicit actions carried out by a specific group of employees in state government agencies. The above practice involves deviating from the laws, regulations, and instructions that govern the work of these units, which has a negative impact because it leads to distancing from the goals for which they were assigned in order to accomplish individual substantial or ethical rewards for the advantage of that collective. This inspires other organizations to use identical methods to attain their goals, resulting in the diffusion of corruption across and inadequate misconduct in society (Fichtner, 2017).

According to Allen and McAllister (2018), the phenomenon of financial administrative corruption is one of the serious phenomena that preoccupied the thinking of government authorities at all levels due to its impact on restricting the ability of executive bodies to function in a way that impedes the fulfillment of their intended aims of effectively and efficiently optimizing accessible resources to accomplish their specified goals. As per Enomoto and Yamaguchi (2017b) corrupt practices have a financial basis because persons in positions of authority believe they possess wealth and are thus powerful. This sort of misconduct, which can be seen in bribes, misappropriation of funds, tax avoidance, and other forms, generally encompasses all financial discrepancies as a result of the infringement of the financial laws that regulate the institutional and legal operation of the nation and its organizations (Liu, 2016).

The fraud pyramid paradigm has been utilized extensively in several studies to examine the prevalence of corporate fraud (Morales et al., 2014). The possibility of financial crime is particularly based on the interaction of three variables known as opportunity, motivation, and reasoning. The element of opportunity is related to circumstances that persuade executives to commit misconduct without taking the dangers of detection into account (Murphy & Dacin, 2011). Managers frequently manipulate finances when internal controls are poor or there is little external oversight. The aspect of motivation then appears as a result of avarice or an apparent desire to engage in dishonest action (Legoria et al., 2018).

According to the agencies' concept, efficient regulatory methods, especially those connected to internal and external supervision, can help to prevent issues like misconduct and accounting fraud (Reid & Youngman, 2017). Adequate administration practices enable financial institutions and government bodies to align their objectives, thus improving the accuracy of financial data (Sakawa et al., 2021). In other terms, it's critical to have robust and appropriate administration to avoid malpractice in the financial sector. According to a number of studies, primary oversight is crucial for ensuring that national ethical standards are upheld, particularly when there are close bank-client ties. For instance, there is a predisposition for CEO turnover in companies with connections to major financial institutions (Semba & Kato, 2018).

Methodology

DATA SOURCE

In the study, a strongly balanced panel of data from two regions namely Latin America, and Sub-Saharan Africa in the period of 2000 to 2021 were used. For the Latin America region Chile, Argentina, Colombia, Ecuador, Peru, and Brazil were selected. Whereas, in the case of the Sub-Saharan Africa region Cameroun, Kenya, Mozambique, Nigeria, Zimbabwe, and, South Africa were studied. The reason for selecting these countries is because of their corruption level, guality of governance, and financial performance. Variables that represent impartial administration in a country were taken into account. Accordingly, the study investigated the impact of public sector theft, bureaucratic quality, executive embezzlement and theft, executive bribery, and corrupt exchanges, corruption level, impartial public administration, local government index, inflation, and government's final expenditure on the net interest margin which is considered a proxy for financial performance in this study. Furthermore, the paper employed OLS and quantile regression models. The OLS (Ordinary Least Squares) is a widely used statistical method for linear regression due to its simplicity, linearity, unbiasedness, efficiency, interpretability, and wide applicability across various fields. It minimizes the sum of squared differences between observed and predicted values, making it sensitive to outliers but remains robust against other types of errors (Wooldridge, 2002). Additionally, quantile regression is chosen over ordinary least squares (OLS) regression in specific scenarios because it is more robust to outliers, captures heterogeneity in relationships between variables, provides distributional insights, handles endogeneity better, allows for comprehensive inference, and deals with heteroscedasticity. It is widely used in various fields when the focus is on understanding different quantiles of the dependent variable distribution (Machado & Mata, 2005). Finally, the data was extracted from various sources such as the World Bank Database, the International Institute for Democracy and Electoral Assistance, and World Data Information.

Variables	Notation	Description	Sources	
Dependent	NIM	Bank net interest margin (%)	World Bank Database	
	PT	Public sector theft (v_41_02)		
Independent	BQ	Bureaucratic quality (v_42_06)		
	ET	Executive embezzlement and theft (v_41_03)	International Institute for	
	EP	Executive bribery and corrupt exchanges (v_41_04)	Democracy and Electoral	
	CL Corruption level (v_41_05)		Assistance	
	IA	Rigorous and impartial public administration (v_42_03)		
	LG	Bureaucratic quality (v_42_06)		

Table 1: Variables Description

University of Information Technology and Management in Rzeszów

www.finquarterly.com

Variables	Notation	Description	Sources
Controllad	INF	Inflation, consumer prices (annual %)	World Data Information
Controlled	GEX	The logarithm of Gross national expenditure (current US\$)	World Bank Database
		Source: Author's own work.	

To conduct the research ordinary least squares (OLS) and quantile regression (QREG) were performed to explore the role of impartial administration on the financial performance of Latin America and Sub-Sahara Africa regions. The OLS equation is described as the following:

$$Y_i = \beta_0 + \beta_{1Xit} + \dots + \beta_{nXit} + \mathcal{E}_i \tag{1}$$

$$NIM_{it} = \beta_0 + \beta_1 PT_{it} + \beta_2 ET_{it} + \beta_3 EP_{it} + \beta_4 CL_{it} + \beta_5 BQ_{it} + \beta_6 IA_{it} + \beta_7 LG_{it} + \beta_8 GXP_{it} + \beta_9 INF_{it} + \varepsilon_i$$
(2)

Where y is the regression coefficient in this model, whereas x is the causative factor. Finally, β denotes the mean regression bounds. ϵ stands for the residual in this equation. See (Dirir, 2022). Subsequently, the quantile regression approach employed in this study is expressed by the preceding equation, which shows the basic linear regression of quantile Q (Koenker & Bassett, 1978).

$$y_i = \beta_0^q + \beta_1^q X_i + \varepsilon_i \tag{3}$$

Following the presentation of the basic quantile regression, the evaluation for this instance now incorporates the minimizing of the weighted sum of the absolute values of the residuals for quantile q. We notice that are the weight while denotes the error.

A more sophisticated format for the quantile regression suggested by (Angrist & Pischke, 2009) is presented below.

$$argmin\left[\sum_{i=1}^{N} \rho_{\tau}(y_i - y_i^q)\right]$$
(4)

Equation 4 can be rewritten in following format:

$$(\beta_0^{\tau} \beta_1^{\tau} \beta_2^{\tau} \beta_3^{\tau} \beta_4^{\tau} \beta_5^{\tau} \beta_6^{\tau} \beta_7^{\tau} \beta_8^{\tau} \beta_9^{\tau} \beta_{10}^{\tau}) = argmin \sum_i \rho_r [y_i - (\beta_0 + \beta_1 NIM + \beta_2 PT + \beta_3 ET + \beta_4 EP + \beta_5 CL - (\beta_0 + \beta_1 NIM + \beta_2 PT + \beta_3 ET + \beta_4 EP + \beta_5 CL - (\beta_0 + \beta_2 BQ + \beta_7 IA + \beta_8 LG + \beta_9 GXP + \beta_{10} INF)]$$

As we can see above, β_1 , β_2 , β_3 , β_4 , β_5 , β_6 , β_7 , β_8 , β_9 , β_{10} indicate the average regressors employed in the research. is the reliant variable that the study is seeking.

FINDINGS

To prevent misspecification results such as crosssectional dependence, stationarity among the variables, multi-collinearity, and the presence of heteroskedasticity, diagnostic tests must be performed. Table 2 presents the correlation associations between variables. Looking at the table, particularly in the Latin America region, the correlation analysis reveals that all the variables except the final expenditure (GXP) are negatively correlated with the net interest margin. Moreover, the Sub-Saharan Africa region exhibited that PT, LG, and, INF have a positive association with the net interest margin while the rest of the variables presented a negative correlation with NIM. Interestingly in both regions, EP, PT, and ET presented a strong positive relationship. This indicates that PT and ET tend to increase in value as the value of EP increases, and vice versa. However, since all of the correlated coefficients are under 0.75, linkages between the explanatory variables do not indicate the existence of multicollinearity (Shrestha, 2020).

Latin America Region											
Variables	NIM	РТ	BQ	ET	EP	CL	IA	LG	INF	GXP	
NIM	1.000										
PT	-0.326	1.000									
BQ	-0.083	0.733	1.000								
ET	-0.270	0.784	0.512	1.000							
EP	-0.337	0.887	0.515	0.880	1.000						
CL	-0.388	0.724	0.436	0.714	0.744	1.000					

Table 2: Correlation matrix

				Latin A	merica Re	gion				
Variables	NIM	PT	BQ	ET	EP	CL	IA	LG	INF	GXP
IA	-0.147	0.879	0.668	0.748	0.774	0.659	1.000			
LG	-0.157	-0.358	-0.809	-0.215	-0.165	-0.174	-0.338	1.000		
INF	-0.187	-0.199	-0.225	-0.074	-0.135	0.034	-0.168	0.049	1.000	
GXP	0.045	0.050	0.047	-0.310	-0.148	-0.176	0.089	0.106	-0.171	1.000
				Sub-Saha	ran Africa	Region				
Variables	NIM	PT	BQ	ET	EP	CL	IA	LG	INF	GXP
NIM	1.000									
PT	0.046	1.000								
BQ	-0.005	0.509	1.000							
ET	-0.251	0.793	0.341	1.000						
EP	-0.254	0.747	0.359	0.901	1.000					
CL	-0.694	0.211	0.132	0.365	0.437	1.000				
IA	-0.339	0.236	0.313	0.503	0.506	0.302	1.000			
LG	0.186	0.271	-0.082	0.367	0.391	-0.092	0.485	1.000		
INF	0.306	0.027	-0.001	-0.094	-0.066	-0.196	-0.124	0.040	1.000	
GXP	-0.529	-0.131	0.225	0.200	0.268	0.365	0.767	0.284	-0.150	1.000

Source: Author's own work.

It is significant to note that the reported correlation matrix is not sufficient to draw conclusions about the influence of the explanatory variables on the dependent variables, thus demanding extensive empirical testing of the relationships. As a result, to check the existence of multicollinearity, the Variance inflation factor (VIF) test is performed (Belsley, 1991). This test is employed to estimate the degree of variance among the selected variables. Accordingly, If the VIF value is equal to or greater than 10 we will have the presence of multicollinearity between the outcome variable and the explanatory variables (Myers, 1990). Hence, in accordance with Table 3, the result of the mean VIF for both regions indicates a value of 6.52 and 4.06 which is less than 10. Therefore, we conclude no evidence of multicollinearity among the predictors. Further, the study performed the Breusch-Pagan-Godfrey test to assess if the model is suffering from heteroskedasticity. For the Latin America model, the findings presented the absence of heteroskedasticity while in the Sub-Saharan Africa model, we failed to reject the null hypothesis of heteroskedasticity. Consequently, the study performed robustness for the ordinary least square test to correct the heteroskedasticity issue (Lee, 1992).

	Table 3: Diagnostic test					
Variables	VIF Latin America Region	VIF Sub-Saharan Africa Region				
PT	15.437	7.659				
BQ	10.585	6.607				
ET	10.125	6.456				
EP	6.465	4.465				
CL	5.236	4.093				
IA	5.152	2.338				
LG	2.655	2.113				
INF	1.848	1.759				
GXP	1.199	1.074				
Mean VIF	6.520	4.060				
Heteroskedasticity Test: Breusch-Pagan-Godfrey						
Region	Prob	Notes				
Latin America	0.2883	No evidence of heteroskedasticity				
Sub-Saharan Africa	0.0002	The model is suffering from heteroskedasticity				

Source: Author's own work.

The component of this study consists of a panel data structure of 6 countries per region which gives us a total number of 12 countries. Therefore, in order to determine whether the data is stable, and the variables are stationary, the unit root test must be considered before proceeding with the regression. Due to the fact that the first generation of the unit root test contains several weaknesses related to not taking the issues of cross-section into account, we decided to employ the second-generation test in this study. Consequently, CIPS (cross-sectionally augmented Im, Pesaran, and Shin test) is performed (Huang & Guo, 2022). Within this context, starting with the Latin America region the results demonstrate that some variables are stationary only at first difference while others are stationary both at the level and first difference. Simultaneously, the Sub-Saharan Africa region revealed similar outcomes in which several variables are stationary at the level while others are stationary at the first difference. Therefore, we conclude that the variables do not contain unit roots and we can proceed with the regression models.

Table 4: Unit root test for Latin America Region									
	Im, Pesaran and Shin test for Latin America Region								
Variables	At l	evel	1 st Diff	erence					
Variables	Intercept	Intercept with Trend	Intercept	Intercept with Trend	Lag order	Decision			
NIM	-1.931**	-3.037***	-7.623***	-5.913***	1	I(0) I(1)			
PT	-3.190***	-3.613***	-6.401***	-4.435***	1	I(0) I(1)			
BQ	-10.741***	-10.310***	-11.599***	-11.593***	1	I(0) I(1)			
ET	-0.353	-0.941	-3.592***	-2.175**	1	I(1)			
EP	0.983	-1.112	-4.212***	-2.629***	1	I(1)			
CL	-4.052***	-3.305***	-9.235***	-7.043***	1	I(0) I(1)			
IA	0.786	1.440	-3.506***	-2.772***	1	I(1)			
LG	-1.035	-1.035	-3.449***	-2.841***	1	I(1)			
INF	-4.554***	-4.066***	-9.561***	-7.919***	1	I(0) I(1)			
GEX	-1.086	-0.309	-7.898***	-9.132***	1	I(1)			

Source: Author's own work.

Table 5: Unit root test for Sub-Saharan Africa Region

		Im, Pesarar	frica Region			
Variables	At l	evel	1 st Diff	erence		
	Intercept	Intercept with Trend	Intercept	Intercept with Trend	Lag order	Decision
NIM	-0.934	-0.127	-6.590***	-4.827***	1	I(1)
PT	-0.385	-0.566	-3.273***	-1.254	1	I(1)
BQ	-0.195	0.363	-3.980***	-3.366***	1	I(1)
ET	-0.866	-0.308	-2.841***	-1.346*	1	I(1)
EP	2.024	2.513	-3.017***	-2.228**	1	I(1)
CL	-1.924	-1.320	-4.179***	-2.569***	1	I(1)
IA	-0.572	-3.486***	-6.686***	-4.462***	1	I(0) I(1)
LG	-1.591*	-1.392*	-5.404***	-4.101***	1	I(0) I(1)
INF	-4.045***	-2.947***	-8.512***	-6.892***	1	I(0) I(1)
GEX	-1.661**	0.622	-3.915***	-4.381***	1	I(0) I(1)

Source: Author's own work.

After conducting the diagnostic test, the OLS technique is now performed to look into the impact of public sector theft, bureaucratic quality, executive embezzlement and theft, executive bribery and corrupt exchanges, corruption level, impartial public administration, local government index, inflation, and government's final expenditure on financial institution performance. In Table 6 the results of the financial performance of the Latin America region are depicted. The findings exhibit that the predicted coefficients of PT, BQ, CL, LG, and IF are negative and significant at 1%, and 5% levels, suggesting that a 1% rise in public sector theft, bureaucratic quality, corruption level, local government index, and inflation results in a reduction of

16.194%, 9.032%, 4.431%, 61.47%, and 0.07% in the net interest margin of the financial sector. On the other hand, IA revealed a positive and significant impact at ET, EP, and GXP presented insignificant influence on the financial performance nevertheless they revealed a positive impact on the net interest margin. Based on

these outcomes we deduce that public sector theft, bureaucratic quality, corruption level, local government index, inflation, and impartial public administration are important factors that shape the financial performance of the Latin America region.

		Lat	tin America Regi	on				
Dep. NIM	Coef.	St. Err	t-value	p-value	[95% Conf]	[Interval]		
PT	-16.194***	5.906	-2.74	0.007	-27.886	-4.502		
BQ	-9.032**	4.422	-2.04	0.043	-17.786	-0.277		
ET	0.690	3.172	0.22	0.828	-5.590	6.969		
EP	2.126	4.203	0.51	0.614	-6.195	10.446		
CL	-4.431**	2.118	-2.09	0.038	-8.623	-0.239		
IA	17.461***	4.547	3.84 0.000 8.461 26.462					
LG	-61.476***	16.582	-3.71 0.000 -94.301 -28.651					
INF	-0.070***	0.020	-3.52 0.001 -0.109 -0.030					
GXP	0.266	0.474	0.56	0.576	-0.673	1.204		
Constant	67.676***	16.532	4.09 0.000 34.949 100.403					
Mean dependent var			5.1970					
R-squared			0.5880					
F-test (9,122)			8.6030					
Prob > F				0.0	000			

Table 6: OLS regression results for Latin American financial sector performance

*** p < 0.01, ** p < 0.05, * p < 0.1

Source: Author's own work.

The study performed a quantile regression to assess the output of the OLS through different quartiles and provide extended information about the variables. Accordingly, Table 7 presents the lower, intermediate, and upper quantile regressions of the Latin America region. The result reveals that ET and EP maintained insignificant impact through the quartiles which are similar to OLS output. However, GXP displays a positive and significant impact in the upper quantile, particularly at q80 and q90. This implies that an increase in the government's final expenditure increases the net interest margin by approximately 0.90%. Interestingly, this statement is challenging the outcome of OLS which revealed that the government's final expenditure does not have a significant impact on financial performance. Finally, the rest of the variables display indistinguishable results from the OLS which suggests that even after performing the quantile regression there is no evidence of variation.

sector performance	
financial	•
merican	
Latin A	
results for	
regression	
: Quantile	
Table 7	

				EJ	atin America Regi	on			
Voriables.				Dependent var	riable: Net interes	st margin (NIM)			
variables		Lower quantile		Int	termediate quant	ile		Upper quantile	
	q10	q25	q35	q40	q50	q60	q75	q80	06b
ΡŢ	-48.4700**	-19.7900*	-16.9400**	-13.9400**	-7.1420	-6.7000	-4.0840	-9.6140	-9.0200
7	(21.9000)	(11.0100)	(7.5970)	(6.3420)	(5.7310)	(4.9380)	(5.1670)	(7.1610)	(7.3380)
C	-0.5380	-12.9300	-11.6000	-10.5700	-10.3200	-11.4400**	-9.3790	-7.5000	-9.2460
ζ.	(10.7300)	(0889.6)	(0.5390)	(9.2810)	(8.2820)	(5.5500)	(6.2280)	(7.5840)	(0.0430)
ŀ	4.4960	-0.8250	0.8710	0.6110	1.4420	1.1040	0.1090	-0.4220	-1.0030
	(8.5230)	(5.1730)	(3.1750)	(2.9220)	(2.7790)	(1.8390)	(3.2460)	(4.2550)	(6.8770)
	9.1980	7.4480	2.8570	1.1630	-0.9530	-1.6680	-4.2860	-0.1650	-3.4650
Ľ	(9.1230)	(4.9230)	(4.6810)	(4.0710)	(3.3270)	(2.5750)	(3.8940)	(2.6090)	(8.7260)
ī	-7.0210	-3.3300	-4.1870*	-4.8340**	-5.9310***	-5.6950***	-4.7310*	-3.6930	-1.5000
CL	(4.2890)	(3.6230)	(2.4030)	(2.0450)	(1.9870)	(2.1170)	(2.7580)	(3.0900)	(2.5970)
<	37.8000***	20.0200**	21.7500***	20.6700***	15.8300^{***}	16.2700^{***}	14.6600^{***}	13.6700***	14.1400^{***}
<u>r</u>	(12.3200)	(0.4570)	(6.2360)	(5.5700)	(3.9240)	(3.8430)	(4.1550)	(4.5660)	(5.2740)
(-37.5300	-65.4500**	-60.8800**	-52.3700*	-46.7800*	-53.3500***	-46.2800*	-56.0800*	-69.0700**
2	(46.1800)	(31.1600)	(30.5300)	(29.1700)	(27.2800)	(18.2300)	(26.5900)	(30.5300)	(30.2500)
	-0.0709	-0.0845	-0.0835**	-0.0830**	-0.0800***	-0.0489**	-0.0500**	-0.0684	-0.0987
	(0.2170)	(0.1110)	(0.0919)	(0.0912)	(0.0829)	(0.0749)	(0.0494)	(0.0716)	(0.0892)
	0.0494	-0.3020	0.0291	-0.1800	-0.2100	0.0605	0.4040	0.9740**	0.8050**
D VE	(1.3020)	(0.7210)	(0.5790)	(0.6180)	(0.6380)	(0.5740)	(0.4940)	(0.4340)	(0.3710)
	42.1000	78.1900**	68.5700**	62.3300**	57.1600^{**}	61.2400***	50.4600**	54.5700*	70.9600**
COLISE	(44.4400)	(31.8100)	(29.3800)	(27.2700)	(25.3700)	(16.2200)	(24.5600)	(30.3700)	(32.0800)
Standard errc	ors in parentheses	, *** p < 0.01, **	p < 0.05, * p < 0.1						

⁾

www.finquarterly.com

University of Information Technology and Management in Rzeszów

Source: Author's own work.

In Table 8, the model shows the outcomes of the financial performance in the Sub-Saharan Africa region. As a result, we observe unidentical outcomes in comparison with the Latin America region's model. For instance, the results revealed that BQ, LG, and INF are positive and significant at a 1% level. This suggests that contrary to the Latin America model which displayed a negative outcome for BQ, LG, and INF in this model the bureaucratic quality, local government index, and inflation are favorably increasing the level of financial performance by 10.1%, 9.09%, and 0.0002% respectively. Contrastingly, ET, CL, and GXP demonstrated a negative and significant impact at 1%, and 10% denoting that a 1% increase in executive embezzlement and theft, corruption level, and government's final expenditure decrease the financial performance of SubSaharan Africa by 11.58%, 16.35%, and 4.28%. Eventually, these outcomes contradict the results of the Latin America region particularly in the case of government expenditure and executive embezzlement and theft which revealed no prominent impact. Furthermore, unlike the Latin America model, the current model displays that IA, PT, and EP have no remarkable impact on financial performance. Within this framework, we remark that the factors that consist of impartial administration do not have a similar impact on the two regions, except corruption level that expressed a negative and significant impact on the net interest margin of both regions and this demonstrates how the corruption in Latin America and Sub-Saharan Africa unfavorably affect financial performance.

		Sub-S	Saharan Africa Re	gion				
Dep. NIM	Coef.	St. Err	t-value	p-value	[95% Conf]	[Interval]		
PT	0.3110	4.93600	0.06	0.950	-9.460000	10.08200		
BQ	10.1030***	3.07200	3.29	0.001	4.021000	16.18400		
ET	-11.5820*	6.31400	-1.83	0.069	-24.081000	0.91700		
EP	6.4850	6.47400	1.00	0.318	-6.331000	19.30100		
CL	-16.3570***	2.77700	-5.89	0.000	-21.854000	-10.86000		
IA	2.6340	4.28100	0.62 0.539 -5.839000 11.10800					
LG	9.0930***	1.74100	5.22 0.000 5.648000 12.53900					
INF	0.0002***	0.00006	4.21 0.000 0.000138 0.00038					
GXP	-4.2800***	1.00600	-4.25 0.000 -6.271000 -2.28800					
Constant	46.6950***	8.27300	5.64 0.000 30.318000 63.07200					
Mean dependent var			7.618					
R-squared			0.709					
F-test (9, 122)			170.741					
Prob > F				0	.000			

*** p < 0.01, ** p < 0.05, * p < 0.1

Source: Author's own work.

In the Sub-Saharan Africa region, the quantile regression output displays some pertinent results challenging the OLS output. For instance, in Table 9 inflation demonstrates insignificant influence on financial performance whereas previously it demonstrated a positive influence on financial performance. Additionally, IA reveals a positive impact on the net interest margin practically in lower and intermediate quantiles. This implies that an increase in rigorous and impartial public administration increases financial performance by 8% to 9%. Moreover, in the OLS model, PT displayed insignificant influence on financial performance. However, in the current model, it shows that an increase in public sector theft reduces the financial performance of Sub-Saharan Africa by 8% to 9%. Finally, the rest of the variables demonstrate an identical outcome to the OLS which shows that even after performing the quantile regression they displayed a homogeneous impact.

e	
2	
a	
Ξ	
2	
Ĕ	
ē	
ō	
t	
ŝ	
-	
Ĕ	
Ja	
Ę.	
σ	
<u>.</u>	
Ę,	
◄	
L E	
Ľ	
ĥ	
Sa	
Ϋ́.	
T	
S	
0	
5	
Ë.	
SU	
é	
Ξ	
ō	
Si.	
ő	
5	
e.	
a	
Ē	
n	
ō	
<u></u>	
a	
a	

				Sub-S	aharan Africa R	egion			
Variablee				Dependent varia	able: Net intere	st margin (NIM)			
variables		Lower quantile		Int	ermediate quan	tile		Upper quantile	
	q10	q25	q35	q40	q55	q65	q75	q85	06b
DT	-0.670000	-9.965000*	-8.750000*	-8.579000*	-3.6390	-0.580000	-2.518000	1.922000	5.9280
- 1	(7.896000)	(5.435000)	(4.891000)	(4.393000)	(5.2170)	(6.955000)	(8.392000)	(10.120000)	(11.0700)
C	8.912000**	6.754000**	6.923000***	7.311000***	9.8740***	14.340000^{***}	14.680000^{***}	12.790000**	11.8800^{**}
Dd	(4.143000)	(2.795000)	(2.252000)	(2.232000)	(3.2750)	(4.522000)	(4.127000)	(4.969000)	(4.6860)
Ľ	2.208000	4.972000	2.347000	1.750000	-6.8340	-14.470000*	-15.000000*	-14.370000*	-16.2600
	(000967.9)	(5.235000)	(4.833000)	(5.072000)	(0.9070)	(7.706000)	(8.896000)	(7.966000)	(9.9190)
	-8.536000	-8.700000	-6.310000	-7.990000	1.7800	9.329000	7.782000	3.998000	7.2790
L L	(6.688000)	(6.632000)	(7.324000)	(7.437000)	(9.2440)	(8.572000)	(7.731000)	(5.328000)	(5.8420)
Ū	-2.321000	-5.322000	-8.932000***	-8.798000**	-13.5200**	-18.710000^{***}	-16.820000^{***}	-17.820000***	-19.6500***
CL	(2.461000)	(3.311000)	(3.032000)	(3.724000)	(5.7090)	(5.907000)	(5.095000)	(3.886000)	(4.2140)
	3.152000	6.204000**	7.454000***	9.689000***	3.6140	-2.540000	-3.363000	-4.714000	-6.2470
H	(3.647000)	(2.527000)	(2.486000)	(1.977000)	(3.6630)	(4.720000)	(4.269000)	(4.658000)	(5.7850)
U	4.196000*	6.247000**	5.355000**	5.524000***	7.9070***	11.440000^{***}	13.150000^{***}	12.800000^{***}	13.4500^{***}
רפ	(2.415000)	(2.960000)	(2.111000)	(1.714000)	(1.8220)	(2.138000)	(2.268000)	(2.200000)	(2.4490)
	0.000598	0.000542	0.000481	0.000467	0.0003	0.000112	0.000089	0.000071	1.96e-06
	(0.005300)	(0.005300)	(0.005500)	(0.005500)	(0.0048)	(0.004900)	(0.007300)	(0.003900)	(0.0015)
UVF	-3.350000***	-4.010000^{***}	-4.054000***	-4.410000^{***}	-4.3800***	-4.600000***	-4.690000***	-3.784000***	-3.9420***
סאם	(1.032000)	(0.764000)	(0.625000)	(0.515000)	(0.5600)	(0.495000)	(0.582000)	(0.723000)	(1.0020)
+1000	35.590000***	44.470000***	46.110000^{***}	49.440000***	49.1000***	51.040000***	52.160000***	44.480000***	46.0600***
	(9.446000)	(6.712000)	(5.835000)	(5.225000)	(5.5000)	(4.968000)	(5.542000)	(7.453000)	(10.3200)
Standard erro	rs in parentheses,	*** p < 0.01, ** p) < 0.05, * p < 0.1						

www.finquarterly.com

University of Information Technology and Management in Rzeszów

Sadik Aden Dirir The role of impartial administration in financial sector performance: A comparative study of Latin America and Sub-Saharan African countries

Source: Author's own work. p < 0.1 p < 0.05, p < 0.01,

CONCLUSION

In the literature, the contribution of banks to economic growth has been extensively studied. Financial firms carry out this function by efficiently mobilizing capital from depositors and distributing it to consumers. Corruption can impede a money mobilization effort's effectiveness. Inadequate administration is an issue of prevalent magnitude in nations in regions such as Latin America and Sub-Saharan Africa. Due to the fact that the current landscape is distinguished by gaps in the legal system, ineffective laws, poorly enforced supervisory regulations, and the slow advancement of institutions are essential for successful democratic accountability.

Sub-Saharan African and Latin American nations have continuously been listed among the most corrupt nations in the globe by Transparency International's corruption perception index. As matter of fact, rigorous and impartial administration is part of management, auditing, budgeting, macroeconomic projections, and other complex specialized activities and procedures to sustain the financial framework of a country. However, the intricacy of these procedures makes them less transparent to society and provides corruption with more possibilities. Within this context, the performance of financial institutions is generally affected by a great deal of misconduct resulting from improper administration. Among these infractions, we mention embezzlement of funds, corruption, and low bureaucratic quality that enable the evasion of taxes. It has become even more difficult for international investors to consider investing in countries that lack transparency and bureaucratic quality.

This paper assessed the role of impartial and sound administration on financial performance with a particular focus on Latin America and Sub-Saharan African countries. The study covered the period from 2000 until 2021 by selecting six countries for each region. Accordingly, in today's financial framework the measurement of profitability and performance is used for the bank's size and the return on assets and equity. Contrarily, this study used the net interest margin as a proxy to measure the financial sector profitability. An ordinary least square was used to catch the effect of the variables on financial performance and quantile regression for extended analysis. Starting with the Latin America region the findings revealed that public sector theft, bureaucratic quality, corruption level, local government index, and inflation have a negative impact on the performance of the financial sector in Latin American countries. This suggests the existence of a high level of corruption, public sector theft, and inadequate local governance to assist the financial institutions and provide them with the necessary strategies and environment to thrive in the region. It is nothing new that in Latin America corporations successfully persuade regulatory bodies to approve structures that are illegal

and continue to do so. Additionally, government bodies manipulate procurement processes and embezzle monev intended for the development of public financing. In the case of inflation, the outcome is in agreement with the paper (Ozturk, 2012). In their study, they employed an ARDL model and discovered that both in the long and short run inflation had a negative impact on financial performance. This brings us back to our findings, which imply that in Latin America inflation is not favorably impacting financial sector performance. A good example is the case of Venezuela and Argentina which exhibit high levels of inflation thus resulting in less saving and lower purchasing power among the population due to the high price levels. On the other hand, impartial public administration showed a positive impact on financial performance. Based on this we may remark that laying out adequate administration will favorably improve the financial sector performance. What is more, executive embezzlement and theft, executive bribery and government final expenditure displayed insignificant influence.

Continuously, the Sub-Saharan Africa region revealed different results in comparison with the Latin America region. For instance, bureaucratic quality, local government index, and inflation revealed a positive impact on financial performance. This implies that contrary to Latin America, in the Sub-Saharan Africa region the quality of bureaucracy, the reforms provided by the local governments, and the inflation are favorably promoting the performance of the financial institutions. Notwithstanding the fact that executive embezzlement and theft, corruption level, and government final expenditures were revealed to negatively influence financial performance. Within this scope, we comprehend the presence of mismanagement of funds, tax evasion, and the high corruption level in Africa that are unfavorably affecting the financial sector. Finally in Sub-Saharan Africa factors such as impartial public administration, public sector theft, and executive embezzlement do not have a remarkable impact on financial performance.

Nations and actors who want to evaluate the impact of adequate governance and impartial administration on financial performance can take advantage of this study's results. It is feasible to improve the financial performance of a country by evaluating the current administration's integrity and determining its positive and negative aspects. Additionally, countries that regularly assess government and authorities' misconduct are likely to avoid corruption thus providing bureaucratic quality for financial entities. Further, the results are anticipated to have significant policy repercussions for investors, businesses, nations, and decision-makers in economic policy. The study also provides insights on which policies and strategies to implement in order to support the financial framework.

References

- Afolabi, A., Olabisi, J., Kajola, S. O. & Asaolu, T. O. (2019). Does leverage affect the financial performance of Nigerian firms? Journal of Economics & Management, 37(2019), 5-22.
- Allen, A. & McAllister, B. (2018). CEO compensation and performance in US private foundations. Financial Accountability & Management, 34(2), 117-132.
- Alvarado, R., Iniguez, M. & Ponce, P. (2017). Foreign direct investment and economic growth in Latin America. Economic Analysis and Policy, 56(2017), 176-187.
- Amanze, B. C. & Onukwugha, C. G. (2017). Loan fraud detection system for banking industries in Nigeria. Using data mining and intelligent agents: The way forward. International Journal of Innovative Research in Technology, Basic and Applied Sciences, 4(1), 1-7.
- Angrist, J. D. & Pischke, J. S. (2009). Mostly harmless econometrics: An empiricist's companion. Princeton university press, Princeton.
- Belsley, D.A. (1991). Conditioning Diagnostics: Collinearity and Weak Data in Regression. John Wiley & Sons, Inc., New York.
- Blevins, D. P., Ragozzino, R. & Eckardt, R. (2022). "Corporate governance" and performance in nonprofit organizations. Strategic Organization, 20(2), 293-317.
- Campbell, A. (2007). Bank insolvency and the problem of non-performing loans. Journal of Banking Regulation, 9(1), 25-45.
- Cecchetti, S. G. & Kharroubi, E. (2019). Why does credit growth crowd out real economic growth? The Manchester School, 87(1), 1-28.
- Chen, J., Cumming, D., Hou, W. & Lee, E. (2016). Does the external monitoring effect of financial analysts deter corporate fraud in China? Journal of Business Ethics, 134(4), 727-742.
- Dirir, S. A. (2022). Performing a Quantile Regression to Explore the Financial Inclusion in Emerging Countries and Lessons African Countries Can Learn from Them. European Journal of Development Studies, 2(5), 1-9.
- Dutta, N., Kar, S. & Saha, S. (2017). Human capital and FDI: How does corruption affect the relationship? Economic Analysis and Policy, 56(2017), 126-134.
- El-Deeb, M. S., Halim, Y. T. & Elbayoumi, A. F. (2022). Disclosure tone, corporate governance, and firm value: evidence from Egypt. Asia-Pacific Journal of Accounting & Economics, 29(3), 793-814.
- Enofe, A. O., Abilogun, T. O., Omoolorun, A. J. & Elaiho, E. M. (2017). Bank fraud and preventive measures in Nigeria: An empirical review. International Journal of Academic Research in Business and Social Sciences, 7(7), 40-51.
- Enomoto, M. & Yamaguchi, T. (2017). Discontinuities in earnings and earnings change distributions after J-SOX implementation: Empirical evidence from Japan. Journal of Accounting and Public Policy, 36(1), 82-98.
- Fetai, B. T. (2018). Does financial development accelerate economic growth? An empirical analysis of European countries in transition. Journal of Financial Economic Policy, 10(3), 426-435.
- Fichtner, J. (2017). Perpetual decline or persistent dominance? Uncovering Anglo-America's true structural power in global finance. Review of International Studies, 43(1), 3-28.
- Higgins, H. N. (2018). Banks and corporate decisions: Evidence from business groups. Financial Management, 47(3), 679-713.
- Huang, J. & Guo, L. (2022). Research on the impact of financial development in different regions on the decoupling of carbon emissions from economic growth. Energy & Environment, 0(0). https://journals.sagepub.com/doi/ abs/10.1177/0958305X22110734

- Jahanzeb, A. & Aziz, T. (2017). Nexus between corruption and economic Growth: ARDL bounds testing approach. Journal of Applied Finance and Economic Policy, 1(1), 18-24.
- Kasasbeh, H. A., Mdanat, M. F. & Khasawneh, R. (2018). Corruption and FDI inflows: Evidence from a small developing economy. Asian Economic and Financial Review, 8(8), 1075-1085.
- Koch-Bayram, I. F. & Wernicke, G. (2018). Drilled to obey? Ex-military CEOs and financial misconduct. Strategic Management Journal, 39(11), 2943-2964.
- Koenker, R. & Bassett Jr, G. (1978). Regression quantiles. Econometrica: Journal of the Econometric Society, 46(1), 33 -50.
- Kolapo, F. T. & Olaniyan, T. O. (2018). The impact of fraud on the performance of deposit money banks in Nigeria. International Journal of Innovative Finance and Economics Research, 1(6), 40-49.
- Lee, B. J. (1992). A heteroskedasticity test robust to conditional mean misspecification. Econometrica: Journal of the Econometric Society, 60(1), 159-171.
- Legoria, J., Reichelt, K. J. & Soileau, J. S. (2018). Auditors and disclosure quality: The case of major customer disclosures. Auditing: A Journal of Practice & Theory, 37(3), 163-189.
- Lemma, T. T. (2015). Corruption, debt financing, and corporate ownership. Journal of Economic Studies, 42(3), 433-461.
- Liu, X. (2016). Corruption culture and corporate misconduct. Journal of Financial Economics, 122(2), 307-327.
- Machado, J. A. & Mata, J. (2005). Counterfactual decomposition of changes in wage distributions using quantile regression. Journal of Applied Econometrics, 20(4), 445-465.
- Morales, J., Gendron, Y. & Guénin-Paracini, H. (2014). The construction of the risky individual and vigilant organization: A genealogy of the fraud triangle. Accounting, Organizations and Society, 39(3), 170-194.
- Murphy, P. R. & Dacin, M. T. (2011). Psychological pathways to fraud: Understanding and preventing fraud in organizations. Journal of Business Ethics, 101(4), 601-618.
- Myers, R. H. (1990). Classical and modern regression with applications. Duxbury press, Belmont.
- Nguyen, T. N. L. & Nguyen, V. C. (2020). The determinants of profitability in listed enterprises: A study from Vietnamese stock exchange. The Journal of Asian Finance, Economics, and Business, 7(1), 47-58.
- Olatunji, O. C. & Adekola, D. R. (2017). The roles of Auditors in fraud detection and prevention in Nigeria deposit money banks: Evidence from South West. European Scientific Journal, 13(31), 290-306.
- Park, C. Y. & Mercado, R. (2015). Financial inclusion, poverty, and income inequality in developing Asia. Asian Development Bank Economics Working Paper Series, 426(2015), 1-25.
- Phuong, D. N. T. & Wong, W. K. (2022). The Effects of Selected Financial Ratios on Profitability: An Empirical Analysis of Real Estate Firms in Vietnam. Annals of Financial Economics (AFE), 17(01), 1-29.
- Puatwoe, J. T. & Piabuo, S. M. (2017). Financial sector development and economic growth: Evidence from Cameroon. Financial Innovation, 3(1), 1-18.
- Reid, C. D. & Youngman, J. F. (2017). New audit partner identification rules may offer opportunities and benefits. Business Horizons, 60(4), 507-518.
- Rewilak, J. (2018). The impact of financial crises on the poor. Journal of International Development, 30(1), 3-19.
- Sakawa, H., Watanabel, N., Duppati, G. & Faff, R. (2021). Institutional ownership and corporate risk-taking in Japanese listed firms. Applied Economics, 53(16), 1899-1914.

- Sakawa, H., Watanabel, N., Duppati, G. & Faff, R. (2021). Institutional ownership and corporate risk-taking in Japanese listed firms. Applied Economics, 53(16), 1899-1914.
- Semba, H. D. & Kato, R. (2018). Does Big N matter for audit quality? Evidence from Japan. Asian Review of Accounting, 27(1), 2-28.
- Shakib, H. (2016). Foreign direct investment (FDI) and corruption: Is it a major hindrance to encouraging inward FDI? African Journal of Business Management, 10(10), 256-269.
- Shrestha, N. (2020). Detecting multicollinearity in regression analysis. American Journal of Applied Mathematics and Statistics, 8(2), 39-42.
- Song, C. Q., Chang, C. P. & Gong, Q. (2021). Economic growth, corruption, and financial development: Global evidence. Economic Modelling, 94(2021), 822-830.
- Taebi Noghondari, A. & Taebi Noghondari, A. (2017). The mediation effect of financial leverage on the relationship between ownership concentration and financial corporate performance. Iranian Journal of Management Studies, 10(3), 697-714.
- Wooldridge, J. M. (2002). Econometric analysis of cross section and panel data MIT press. Cambridge, 108(2), 245-254.
- Van Vu, H., Tran, T. Q., Van Nguyen, T. & Lim, S. (2018). Corruption, types of corruption and firm financial performance: New evidence from a transitional economy. Journal of Business Ethics, 148(4), 847-858.
- Yusuf, H. A., Shittu, W. O., Akanbi, S. B., Umar, H. M. & Abdulrahman, I. A. (2020). The role of foreign direct investment, financial development, democracy, and political (in) stability on economic growth in West Africa. International Trade, Politics and Development, 4(1), 27-46.