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Analyzing the Determinants of Bank Profitability: The impact of Size, Growth, Efficiency, and Financial Structure in Iraq

Mohammed Ahmed Mahmood¹

تحليل محددات ربحية المصرف: أثر الحجم والنمو والكفاءة والهيكل المالى في العراق محمد احمد محمود1

1. Darbendikhan Technical Institute (DTI) - Sulaimani Polytechnic University(SPU), Iraq, Kurdistan Region, Sulaimani city, mohammad.mahmood@spu.edu.iq

1. جامعه التقنيه السليمانيه - معهد التقني در بنديخان، العر اق، إقليم كر دستان، مدينة السليمانية، mohammad.mahmood@spu.edu.jg



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This study investigates the influence of financial factors on bank profitability using return on equity (ROE) as the dependent variable. The independent variables include Bank Size (BS), Growth (GRO), Asset Utilization Ratio (AUR), Equity Multiplier (EM), and Debt-to-Assets Ratio (DTA). Data for 10 listed banks in the Iraqi stock market between the years 2017 and 2021 were used in this study with the Generalized Least Squares (GLS) method to provide accurate estimations. This period was selected because of the significant development of the banking sector in Iraq. The results show that bank size (BS) and growth (GRO) have no significant effects on profitability, indicating that as operations get more complicated and expenses rise, company and asset expansion may not always translate into higher returns. Efficiency ratio (AUR), on the other hand, has a big influence and emphasizes how crucial it is to use assets efficiently in order to generate bank profitability. Debt to assets ratio (DTA) negatively impacts profitability in terms of capital structure, implying that an excessive reliance on debt increases financial expenses and possible risks. On the other hand, the equity multiplier (EM) has a positive impact on profitability, indicating that banks may perform better by keeping their debt levels at an ideal level. These findings highlight the need of a sensible debt management plan. Future studies should focus on bank profitability by considering additional factors, such as macroeconomic factors and regulatory frameworks must be taken into account.

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المستخلص

تبحث هذه الدراسة في تأثير العوامل المالية على ربحية المصرف باستخدام العائد على حقوق الملكية كمتغير تابع. تشمل المتغيرات المستقلة حجم المصرف والنمو ونسبة استخدام الأصول ومضاعف حقوق الملكية ونسبة الدين إلى الأصول. تم استخدام بيانات 10 مصارف مدرجة في سوق الأوراق المالية العراقية بين عامي 2017 و 2021 في هذه الدراسة باستخدام طريقة المربعات الصغرى المعمّمة لتوفير تقديرات دقيقة. تم اختيار هذه الفترة بسبب التطور الكبير في القطاع المصرفي في العراق. تظهر النتائج أن حجم المصرف والنمو ليس لهما تأثير كبير على الربحية، مما يشير إلى أنه مع تزايد تعقيد العمليات وارتفاع النفقات، قد لا تترجم توسع الشركة والأصول دائمًا إلى عوائد أعلى من ناحية أخرى، فإن نسبة الكفاءة لها تأثير كبير وتؤكد على مدى أهمية استخدام الأصول بكفاءة منّ أجل تحقيق ربحية المصرف تؤثر نسبة الدين إلى الأصول سلبًا على الربحية من حيث هيكل رأس المال، مما يعني أن الاعتماد المفرط على الديون يزيد من النفقات المالية والمخاطر المحتملة. من ناحية أخرى، يُؤثِّر مُضاعِف حقوق الملكية إيجابًا على الربحية، مما يُشير إلى أنَّ المصرف قد تُحسِّن أداءها بالحفاظ على مستويات ديونها عند مستوى مُثالى. تُسلِّط هذه النتائج الضوء على ضرورة وجود خطة فعَّالة لإدارة الديون. ينبغي أن تُركِّز الدراسات المُستقبلية على ربحية المصرف مع مراّعاة عوامل إضافية، مثل العوامل الاقتصادية الكلية والأطر التنظيمية.

1. Introduction

There is an ongoing debate about whether the determinants of bank profitability are affected by the size, growth, efficiency, and financial structure. According to Naz et al. (2022); Nisar et al. (2018), increased profitability has a significant positive impact on bank stability. From a broader perspective, higher earnings contribute to a strong banking sector, which in turn supports economic development and prosperity. However, since banks act as financial intermediaries, lending rates can be impacted by adjustments to their expenses or profit objectives, which could result in higher expenses for loans. This may be a reason why monetary authorities maintain control over the banking system. The combination of liberalization and regulation has increased competitiveness in the business, making banks more vulnerable to financial collapse.

There are some factors that affect banks' profitability. According to a study by Dahmash (2015); Shaheen & Malik (2012), the size of a bank is determined by the scope and available operational capacity, as well as the variety and number of services it can simultaneously provide to its customers as a result of economies of scale. Large corporations can create items at lower costs than smaller enterprises, making size a crucial factor in today's business world. Firm size is increasingly recognized as a factor in determining organizational profitability. However, Dahmash (2015); Erika & Hágen (2015) argue that large institutions, including banks, benefit from superior management, invention of products, marketing, competitiveness, share of the market, and access to high-capital-rate. This provides opportunities for employment in highly profitable sectors with less rivalry. Recent research has shown that bank size may not always have an impact on profitability. (Bolívar et al., 2023), for example, discovered that banks of different sizes who are equally profitable tend to have similar strategic attributes. This indicates that operational techniques and business models are more important in predicting profitability than scale.

Another factor that can be considered to affect bank profitability is growth. For decades, scholars have been interested in the relationship between growth and sustainability. Business practices rely heavily on the binomial growth-profitability equation (Fuertes-Callén & Cuellar-Fernández, 2019). According to Fitzsimmons et al. (2005), business institutions have traditionally used growth as an indicator of success since it is expected to contribute to a competitive edge over time and prosperity. Profitable growth is essential for long-term sustainability. Firms that prioritize growth above profitability may require external financing, leading to financial difficulties.

Asset efficiency could also directly impact the profitability of a bank as it shows the extent to which a bank employs its assets in generating profits with minimal costs (Sdiq & Abdullah, 2022). Enhanced asset efficiency increases interest income, reduces non-performing assets, and improves operating performance, thereby improving profitability.

Another element that is anticipated to affect profitability is leverage. Competent debt control to fund operational expenses can increase the business's profitability. Profitability possibly rises when a company's investment returns exceed its debt costs. Overuse of leverage, nonetheless, increases interest costs and financial uncertainty, which, if not well controlled, can lower net earnings. Putranto (2019); Balázs & Patrícia (2015) argue that while using debt to fund the organization's operations is helpful, if the organization does not care about the correct debt, it may lead to a decrease in profitability because the entire

amount of loan will result in fixed costs of interest. Despite the large number of research conducted and the growing interest in the scientific literature. However, limited attention has been given in relation to the link between bank size, growth, assets efficiency, and leverage profitability among listed banks on the Iraqi stock exchange, as well as the requirements and capacity needed to achieve balance among these factors. Therefore, this study aims to analyze the profitability of the Iraqi banking sector from 2017 to 2021. This period is considered of banking sector development in Iraq, and they have a large market capitalization.

2. Literature review

2.1. Relationship between size and profitability

Many studies analyzing the link between business size and profitability have produced varying results. Ahmed (2022) found a positive correlation between the size of banks and profitability among commercial banks using data from 2011 to 2014. The study found that while expansion procedures reduced benefits, better profitability was associated with more growth. This implies that concentrating solely on growth goals would eventually result in risk. In order to sustain their growth, organizations, including banks that were designed to achieve large profit margins, need to consider their size. Gržeta et al. (2023) examined the performance of European commercial banks for 433 banks over ten years. According to their findings, large- and medium-sized banks are positively and significantly correlated with profitability. However, they found a statistically negative correlation between size and profitability in small banks.

2.2. Relationship between growth and profitability

Numerous studies in the business and financial literature have examined the relationship between growth and profitability in business and financial literature, offering both opposing and complementary viewpoints. According to (Penrose, 1959), structural internal resources and competencies lead to higher profitability, suggesting that business expansion can positively impact profitability. However, empirical research has shown that rapid growth requires to use of available resources and a reduction in profits in the short term (Davidsson et al., 2009). Researchers argue that growth and sustainable development, especially when banks have economies of scale, can enhance profitability. (Fuertes-Callén & Cuellar-Fernández, 2019; Odalo et al., 2016; Putri, 2020), While (Dang et al., 2019) found no significant association. Thus, the link between profitability and growth is contextual and dynamic, it may change according to market conditions, managerial decisions, and capital availability.

2.3. Relationship between assets efficiency and profitability

Efficiency is also considered a key determinant of bank performance. Asset efficiency is an important factor in assessing a bank's profitability since it defines how effectively assets are used to drive revenue while minimizing costs. Organizations that improve asset efficiency may achieve higher returns on investment, and minimize the cost of non-performing assets, and enhance their operational efficiency, all of which reflect increased profitability (Salih et al., 2024). Therefore, improved asset also reduces the risk of

an assets-liability inconsistency, enhance the stability of the economy, and improves the control of liquidity (Dietrich & Wanzenried, 2011; Elvira & Hágen, 2017). Another research by (Salih et al., 2024) indicates that banks with more productive resources face a lower risk of bankruptcy and failure.

2.4. Relationship between leverage and profitability

According to Ahmed & Hágen (2023) profit is a primary driver of debt financing as companies aim to make money by effectively utilizing the funds they have obtained. In order to determine the impact of debt funding on profitability, multiple investigations have been carried out, a few of these investigations indicate a positive association between capital structure and performance at banks, while others show an adverse correlation. Sanjeevi & Srinivasa (2013); Taani (2013) determine that the capital financing of banks has a noticeable impact on their financial health. (Moussa et al., 2021) carried out an examination on 19 Tunisian banking to show the relationship between leverage and bank profitability. the author found that the capital financing of the banks had a favorable association with performance and profitability. However, Hágen & Ahmed (2024) completed an analysis among GCC companies and found an adverse correlation between funding through debt and corporate performance.

2.5. Building hypotheses

- **H1.** Bank size has a significant effect on profitability.
- **H2.** Growth opportunity has a significant effect on profitability.
- **H3.** Asset efficiency has a significant effect on profitability.
- **H4.** Leverage has a significant effect on profitability.

2.5. Research model

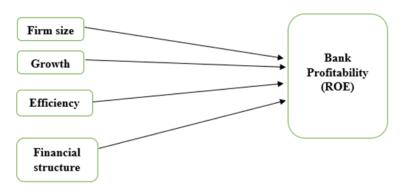


Figure (1) Research framework

Source: developed by authors

3. Methodology

3.1.Data and research design

This study explores the impact of a number of financial factors on bank profitability. This research utilized a descriptive research approach, which explores all crucial elements of the study. Using secondary data, the study gathered and obtained data from the financial statements of 10 banks registered on the Iraqi stock market during 2017-2021. The GLS

method is employed due to its suitability for the data analysis. We applied the Generalized Least Square (GLS) as a reliable technique in this investigation.

3.2. Variables

The dependent variable is profitability, indicated by equity return (ROE). Bank Size (BS), Growth (GRO), Asset Utilization Ratio (AUR), Equity Multiplier (EM), and Debt-to-Assets Ratio (DTA) are independent variables. All study variables are explained in table 1.

Table (1) Definition of variables

Variable	Abbrev.	Measurement	
Bank	ROE	Net income/Total shareholders' equity	
Profitability			
Firm size	BS	Log. of total assets	
Growth	GRO	(Current year sales-Previous year sales)/Previous year sales	
Efficiency	AUR	Total revenue/Total assets	
Financial	EM	Total assets/Total shareholders' equity	
structure	DTA	Total debt/Total assets	

Source: developed by author

Based on the above evaluations and discussion, the following model was built for this research.

$$ROE_{it} = a_0 + \beta 1FS_{it} + \beta 2GRO_{it} + \beta 3AUR_{it} + \beta 4EM_{it} + \beta 5DTA_{it} + e_{it}$$
 Where:

ROE = Return on assets, BS = Bank size, GRO = Growth, AUR = assets utilization, EM = Equity multiplier, DTA = debt to assets.

4. Results and discussion

4.1.Descriptive statistics

The brief statistics for the values in Table 2 offer an overview of the most important financial figures from a sample size of Iraqi listed banks between 2017-2021. This period was chosen because it is considered for the banking sector development in Iraq. The sample banks that included in this study are (Region Trade Bank for Investment and Finance, Union Bank of Iraq, Al-Mansour Bank, Commercial Bank of Iraqi, Cihan Bank, Economy Bank For Investment, Bank of Baghdad, International Development Bank for Investment, Erbil Bank for Investment & Finance, Mousil Bank For Development& Investment). The results in table 2 show that the mean value of ROE is 0.032, suggesting a low level of performance. FS has a mean of 21.075 and a standard deviation of 2.157, showing substantial diversity amongst banks. GRO is substantially scattered, with a mean of 0.852 and a deviation of 2.551, showing that bank growth rates vary among banks. AUR has a mean of 0.048 and a comparatively low standard deviation of 0.057, showing that banks use assets with reasonable dependability. EM averages 2.520, meaning the degree of financial leverage used, while DTA is 0.549, indicating that banks finance around 54.9% of their assets with debt. The minimum and maximum values demonstrate a broad range in performance, notably growth (from -0.999 to 11.264), demonstrating the sample's diverse degrees of development. In general, standard deviations represent varied amounts of dispersion, with variables like growth and equity multiplier exhibiting higher variance than asset effectiveness and size.

Table (2) Summary Statistics

	ROE	BS	GRO	AUR	EM	DTA
Mean	0.032	21.075	0.852	0.048	2.520	0.549
Median	0.024	20.253	-0.007	0.035	2.091	0.522
Min.	-0.009	19.801	-0.999	0.012	0.449	0.121
Max.	0.252	27.608	11.264	0.388	5.226	0.809
Std. Dev.	0.040	2.157	2.551	0.057	1.263	0.159
Obs.	50	50	50	50	50	50

Source: developed by author based on the output from EViews 10.

4.2. Pearson Correlation Matrix

Table 3 shows the Pearson association coefficients for the study factors, which are Firm size (FS), growth (GRO), asset efficiency (AUR), equity multiplier (EM), and debt-to-asset ratio (DTA). The findings show that FS interacts favorably with GRO (0.497) and AUR (0.282), implying that bigger banks expand quicker and are more efficient at using resources. GRO is also substantially positively connected with AUR (0.684), indicating that companies with more growth use their resources more effectively. Financial leverage (EM) has a strong positive correlation with DTA (0.621), implying that banks with more leverage likely to have greater amount of loan. While some relationships are positive and substantial, such as FS-DTA (0.331), others, such as EM-AUR, are smaller. On average, the table covers major financial correlations, particularly those involving bank size, growth, asset efficacy, and leverage.

Table (3) Pearson correlation

	BS	GRO	AUR	EM	DTA
BS	1				
GRO	0.497***	1			
AUR	0.282**	0.684***	1		
EM	0.144	-0.163	-0.224	1	
DTA	0.331**	0.065	-0.113	0.621***	1

Notes: ***Significant at 1% level; **Significant at 5% level.

Source: developed by author based on the output from EViews 10.

The Variance Inflation Factor (VIF) estimates the level of collinearity among variables (dependent and independent factors). Any VIF less than 10 generally exhibits no significant multicollinearity, and values less than 6 are considered optimal (Nachane, 2006). In this investigation, all of the VIF values range between 0.417 and 0.661, which is significantly below the stress level. This demonstrates that collinearity is not a problem at all. The consequence is that the model's independent variables are not strongly connected, therefore their separate influences can be easily assessed using the equation for regression.

Table (4) Variance Inflation Factors (VIF)

Variable	VIF	Tolerance	
BS	0.661	1.514	
GRO	0.417	2.398	
AUR	0.508	1.970	
EM	0.571	1.753	
DTA	0.541	1.849	

Source: developed by author based on the output from EViews 10.

4.3. Selecting appropriate model

This investigation managed the below tests to select a reliable and appropriate model selection. According to the Hausman test result, ROE as a dependent variable has a value of 0.881, above the acceptance range of significant level. Hence, following this conclusion, the random effects model may be used in any of these two models because cross-sectional differences are random and uncorrelated with the independent variables. However, the heteroskedasticity test findings indicate substantial test statistics (27.654, p = 0.000 for ROE), confirming the existence of heteroskedasticity in both models. Because heteroskedasticity contradicts the requirements of the random effects model, the best applicable method is Generalized Least Squares (GLS). GLS corrects for heteroskedasticity, producing more efficient and accurate parameter estimations.

Table (5) Model selection

Test	Dependent variable (ROE)	Probability	
Hausman	0.881	0.9716	
Heteroskedasticity	27.654	0.000***	

Source: developed by author based on the output from EViews 10.

4.4. Findings and analysis

The Generalized Least Squares (GLS) random effects model is used in regression analysis to investigate the influence of different financial drivers on the profitability of banks. Table 5 displays the findings and indicates that Bank Size (BS) exhibits a detrimental coefficient (-0.003) but is statistically unimportant (p = 0.339), implying that bank size has no meaningful impact on profitability. This claims that any increase or decrease in BS does not have any impact on bank performance. This could happen because larger banks sometimes have several sources of income, which may consolidate profits but may not always boost profitability. Therefore, H1 is rejected and supported by (Gržeta et al., 2023).

Growth (GRO) has a favorable coefficient (0.002) but is not meaningful statistically (p=0.172), implying that income or asset growth has little effect on sustainable profit. Rapid development usually requires significant expenditures in infrastructure, and marketing, which may affect short-term profitability only. In other words, growth may not necessarily result in greater revenue if the marketplace becomes competitive, limiting income possibilities. Therefore, H2 is rejected and supported by (Dang et al., 2019).

Further, efficiency proxied by AUR has a substantial beneficial impact (p = 0.000) with a coefficient of 0.585, indicating that increased efficiency of assets improves bank performance and profitability. This claims that a 1% jump in AUR causes to increase in ROE by 0.58 percent. higher AUR means the better bank that maximizes its resources, resulting in rising interest, fees, and other revenues at the same expenses. Asset management successfully decreases insufficiently utilized or inactive resources increases liquidity, and boosts return on assets (ROA). Well-utilized assets minimize risk and increase stability in finance, thereby increasing the bank's competitiveness. Hence, H3 is accepted and supported by (Dietrich & Wanzenried, 2011).

Table (6) Regression analysis (Dependent variable ROE)

Variable	Coefficient	Std. Error	Probability	
BS	-0.003	0.002	0.339	
GRO	0.002	0.001	0.172	
AUR	0.585	0.033	0.000	
EM	0.017	0.003	0.000	
DTA	-0.044	0.022	0.045	
C	0.026	0.047	0.582	
R-sq.	0.773			
Adj. R-sq.	0.747			
F-stat.	30.01			
Prob.	0.000			
Durbin-Watson	2.079			

Source: developed by author based on the output from EViews 10

Debt-to-assets ratio (DTA) has a substantial negative influence (coefficient = -0.044, p = 0.045) on bank profitability, demonstrating that increasing leverage affects profitability negatively. this is due to the fact that debt financing brings higher expenses and costs and reduces net income. However, the Equity Multiplier (EM) has a beneficial influence (coefficient = 0.017, p = 0.000) on profitability. These observations emphasize the need for banks to manage choices regarding capital structures. While debt at reasonable amount may boost profitability, excessive reliance on financial leverage, as demonstrated by a high Equity Multiplier and debt to assets ratio, could end up with lower returns and higher risk. Bank regulators should take these comments into account when creating financial regulations to ensure long-term sustainability and financial security. Therefore, H 4 are accepted and supported by (Hágen & Ahmed, 2024; Moussa et al., 2021). The findings suggest that asset effectiveness and reasonable amount of loan are the most important positive factors affecting bank profitability, but increasing high debt level has a negative impact. Firm development and size have little to no effect. These findings highlight the crucial role of effective asset use and a solid foundation for capital in improving bank outcomes.

The findings show the value of Adj. R-sq. 0.747, suggesting that the independent factors explain about 74.7% of the variation in bank profitability, demonstrating strong predictive power. The extremely significant F-statistic demonstrates that one or more factors have a considerable impact on profitability. The value of Durbin-Watson statistic is 2.079 reveals that no significant autocorrelation, indicating that the residuals do not correlate considerably over time.

5. Conclusion

This study explores the impact of a number of financial factors on bank profitability. The dependent variable is profitability, indicated by equity return (ROE). This indicator is important as it measures how efficiently banks produce more profit from shareholders' equity, meaning that the effectiveness of financial management and profitability. Bank Size (BS), Growth (GRO), Asset Utilization Ratio (AUR), Equity Multiplier (EM), and Debt-to-Assets Ratio (DTA) are independent variables. Data used in this study is based on 10 banks registered on the Iraqi stock market during 2017-2021. The GLS method is employed as a more effective and accurate measure in this research.

The findings indicate that Bank Size (BS) and Growth (GRO) are not significant when compared to profitability, which means that expansion of business and expansion of assets do not always lead to higher profit. This could be due to the complexity of operations and associated increased costs for larger institutions and growth at a rapid rate. Nonetheless, efficiency, as indicated by the Asset Utilization Ratio (AUR), has a highly positive effect on profitability, indicating the significance of efficient asset management. An elevated AUR implies that banks are using their resources effectively, raising revenue while managing costs, thus improving financial performance. With regard to capital structure, the study proves mixed impacts of leverage on profitability. The Debt-to-Assets Ratio (DTA) was discovered to bear a negative and significant impact that indicates excessive usage of debt as a source of finance increases the cost of money and risk and hence reduces profitability. The Equity Multiplier (EM), by contrast, carries a positive and highly significant effect that implies maintaining a good debt proportion in capital structure can enhance bank performance. These findings highlight the importance of maintaining a balance in the debt financing strategy to ensure the highest profitability and lowest financial risk.

While this study provides significant findings on the influence of financial determinants on bank profitability, future research can build on these findings by incorporating additional determinants of profitability, such as interest rate policies, competitive environments, and regulatory frameworks. Furthermore, the incorporation of macroeconomic determinants like inflation, GDP growth, and monetary policy would provide a clearer image of the external determinants of bank performance.

References:

- 1. Agrawal, A., & Srivastav, K. (2021). Impact of Leaders Competency on the Profitability of the Micro, Small and Medium Enterprise. Global Journal of Enterprise Information System, 13(3), 20-34.
- 2. Ahmed, A. M., & Hágen, I. (2023). Corporate Governance and Its Relationship with Financial Performance in Iraq. *Acta Carolus Robertus*, 13(1), 76–89.
- 3. Ahmed, A. M. (2022). The Relationship Between Firm Size and Profitability: "Evidence from the Commercial Banks in Iraq". The Scientific Journal of Cihan University—Sulaimaniya, 6(1), 145-156.
- 4. Bolívar, F., Duran, M. A., & Lozano-Vivas, A. (2023). Bank business models, size, and profitability. *Finance Research Letters*, *53*(December 2022), 103605.
- 5. Balázs, F., & Patrícia, B. N. (2015). The role of venture capital in the bridging of funding gaps A real options reasoning. *Annals of University of Oradea Economic Science*, 24(1), 825-830.
- 6. Dahmash, F. N. (2015). Size Effect on Company Profitability: Evidence from Jordan. *International Journal of Business and Management*, 10(2), 58–72.
- 7. Dang, H. N., Vu, V. T. T., Ngo, X. T., & Hoang, H. T. V. (2019). Study the Impact of Growth, Firm Size, Capital Structure, and Profitability on Enterprise Value: Evidence of Enterprises in Vietnam. *Journal of Corporate Accounting and Finance*, 30(1), 144–160.
- 8. Davidsson, P., Steffens, P., & Fitzsimmons, J. (2009). Growing profitable or growing from profits: Putting the horse in front of the cart? *Journal of Business Venturing*, 24(4), 388–406.
- 9. Dietrich, A., & Wanzenried, G. (2011). Determinants of bank profitability before and during the crisis: Evidence from Switzerland. *Journal of International Financial Markets, Institutions and Money*, 21(3), 307–327.

- 10. Elvira, B., & Hágen, I. (2017). Menedzsment Control-A Számviteli Mutatószámoktól A Versenyképes Stratégiáig. *Acta Carolus Robert journal*, 7(2), 19–36.
- 11. Elvira, B., & Hágen, I. Z. (2015). BSC modellel a kereskedelmi tevékenységet ellenőrző vállalkozások versenyképességének növeléséért, *Controller Info*, 3(1), 42–46.
- 12. Fitzsimmons, J., Steffens, P., & Douglas, E. (2005). Growth and profitability in small and medium sized Australian firms. *In Proceedings AGSE Entrepreneurship Exchange*. Melbourne, 164-178.
- 13. Fuertes-Callén, Y., & Cuellar-Fernández, B. (2019). Inter-relationship between firm growth and profitability in a context of economic crisis. *Journal of Business Economics and Management*, 20(1), 86–106.
- 14. Gržeta, I., Žiković, S. & Tomas Žiković, I. (2023). Size matters: analyzing bank profitability and efficiency under the Basel III framework. Financial Innovation, 9(43).
- 15. Hágen, I., & Ahmed, A. M. (2024). Carbon Footprint, Financial Structure, and Firm Valuation: An Empirical Investigation. *Risks*, *12*(12), 197.
- 16. Isik, O., Unal, E. A., Unal, Y. (2017). The effect of firm size on profitability: evidence from Turkish manufacturing sector. *Journal of Business, Economics and Finance (JBEF)*, 6(4), 301-308.
- 17. Kotey, R. A; Kusi, B., & Akomatey, R. (2019). Ownership structure and profitability of listed firms in an emerging market, Growing Science. *Accounting*, 5, 51-66.
- 18. Moussa, M. A. Ben, Trabelsi, H., & Boubaker, A. (2021). The Impact of Capital on Bank Profitability: Case of Tunisia. *Journal of Economics, Management and Trade, 27*(1), 7–20.
- 19. Naz, M. A., Ali, R., Rehman, R. U., & Ntim, C. G. (2022). Corporate governance, working capital management, and firm performance: Some new insights from agency theory. *Managerial and Decision Economics*, 43(5), 1448–1461.
- 20. Nisar, S., Peng, K., Wang, S., & Ashraf, B. N. (2018). The impact of revenue diversification on bank profitability and stability: Empirical evidence from south asian countries. International *Journal of Financial Studies*, 6(2).
- 21. Odalo, S. K., Achoki, G., & Njuguna, A. (2016). Relating Company Size and Financial Performance in Agricultural Firms Listed in the Nairobi Securities Exchange in Kenya. *International Journal of Economics and Finance*, 8(9), 34.
- 22. Putranto, P. (2019). Pengaruh Strategi Diversifikasi, Leverage, dan Inflasi terhadap Profitabilitas Perusahaan Food & Beverage. *Jurnal Online Insan Akuntan*, 4(2), 185–198.
- 23. Salih, K. H., Sangawi, S. S., & Kamal, K. A. (2024). The Impact of the Cash Flow, Solvability, and Working Capital on Accounting Profitability with Capital Structure as a Mediation (Qatar Stock Exchange Case Study Period 2018–2022). *Journal of Accounting and Financial Studies (JAFS)*, 19(68), 318–331.
- 24. Salih, R. H. (2024). The role of capital structure in financial performance: Applied research in a number of commercial Banks listed on the Iraqi stock exchange. Journal of Accounting and Financial Studies, 19(68), 332-340.
- 25. Sanjeevi, P., & Srinivasa R., G. (2013). Capital Structure and Financial Performance. *Journal of Management & Research*, 2(1), 8–25.
- 26. Sdiq, S. R., & Abdullah, H. A. (2022). Examining the effect of agency cost on capital structure-financial performance nexus: empirical evidence for emerging market. *Cogent Economics and Finance*, 10(1).
- 27. Shaheen, S., & Malik, Q. A. (2012). The Impact of Capital Intensity, Size of Firm And Profitability on Debt Financing In Textile Industry of Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 3(10), 1061–1066.
- 28. Taani, K. (2013). Capital Structure Effects on Banking Performance: A Case Study of Jordan. *International Journal of Economics, Finance and Management Sciences*, 1(5), 227.