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EDITORIAL: Accounting, accountability, and firm performance

Dear readers!

We are glad to present the first issue of the second volume of the *Reporting and Accountability Review* journal. The current issue comprises two articles and a book review.

The first article by *Hatem Elfeituri* and *Lubna ElGehan*, “The impact of stock market development and accountability on economic growth in the Gulf Cooperation Council countries”, investigates the impact of stock market development and accountability on the economic growth of Gulf Cooperation Council (GCC) countries during the period from 1993 to 2019, data obtained from the World Bank and examined through the application of the Ordinary Least Squares (OLS) regression model. The findings of this research offer insights for both domestic and international investors, providing a foundation for informed investment decisions within the region.

Moreover, the results suggest that investing in the GCC may yield substantial financial returns, thereby contributing indirectly to broader economic development. The study underscores the critical role of well-developed stock markets in driving economic growth. Accordingly, strategic measures aimed at reducing transaction costs are recommended to stimulate trading activity.

The second article by *Mariem Ben Abdallah*, “The effect of FinTech on banks’ performance and accountability in Tunisia: An empirical analysis”, assesses the impact of FinTech on the performance of

Tunisian banks, with a specific focus on evaluating its influence on the profitability of twelve selected banks during the period from the second quarter of 2020 to the third quarter of 2022, data obtained from quarterly financial statements and with a generalized least squares (GLS). The findings of the study indicate that bank profitability is significantly influenced by the adoption of FinTech services, particularly payment technologies and artificial intelligence (AI).

These results have important implications for investment decision-making, as they highlight the potential for innovation and entrepreneurial activity in response to the increasing integration of FinTech in banking operations.

Both articles cover relevant and novel topics:

- The first deals with the role of policymakers within the GCC's focus on reinforcing stock market structures through enhanced regulatory frameworks, greater transparency, and stronger investor protections;
- The second represents one of the earliest empirical investigations into the relationship between FinTech and bank performance in Tunisia.

Also, you are welcome to read the book review. The twenty-three contributions assembled in the proceedings titled Corporate Governance: Scholarly Research and Practice form a coherent and multidimensional exploration of these transitions. They reflect the ongoing redefinition of governance not merely as a structural or

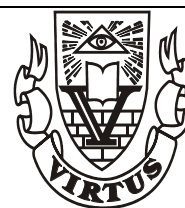
procedural domain but as a dynamic, context-sensitive capability essential for long-term organizational legitimacy and societal value creation.

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CONTENTS



EDITORIAL: Accounting, accountability, and firm performance	4
THE IMPACT OF STOCK MARKET DEVELOPMENT AND ACCOUNTABILITY ON ECONOMIC GROWTH IN THE GULF COOPERATION COUNCIL COUNTRIES	8
<i>Hatem Elfeituri, Lubna ElGehani</i>	
THE EFFECT OF FINTECH ON BANKS' PERFORMANCE AND ACCOUNTABILITY IN TUNISIA: AN EMPIRICAL ANALYSIS	15
<i>Mariam Ben Abdallah</i>	
CONFERENCE BOOK REVIEW: "CORPORATE GOVERNANCE: SCHOLARLY RESEARCH AND PRACTICE"	21
<i>Valentina Santolamazza</i>	

THE IMPACT OF STOCK MARKET DEVELOPMENT AND ACCOUNTABILITY ON ECONOMIC GROWTH IN THE GULF COOPERATION COUNCIL COUNTRIES

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Abstract

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The objective of this study is to examine the impact of stock market development and accountability on the economic growth of the Gulf Cooperation Council (GCC) countries from 1993 to 2019. The data of this study was collected from the World Bank's outlook and analysed using the ordinary least square (OLS) model, which is a type of linear regression. The findings of this study are beneficial for potential investors, either local or foreign, to make decisions related to investing in this region. It also indicates to foreign investors that investing in this region can be financially beneficial for them in terms of earning profit, which will also indirectly impact the economy in a positive way. The results of high stock market development variables are crucial to promoting economic growth, and therefore, strategic efforts should be aimed at reducing transaction costs to stimulate trading activities. Policymakers in GCC countries should focus on strengthening stock markets by improving regulation, ensuring transparency, and enhancing investor protection.

Keywords: Stock Market, Economic Development, Growth

Authors' individual contribution: Conceptualization — H.E.; Methodology — H.E. and L.E.; Formal Analysis — H.E. and L.E.; Investigation — H.E. and L.E.; Resources — H.E.; Writing — Original Draft — H.E. and L.E.; Writing — Review & Editing — H.E.; Supervision — H.E.

Declaration of conflicting interests: The Authors declare that there is no conflict of interest.

1. INTRODUCTION

The factors that influence the process of economic growth in different countries have received much attention from a number of scholars, especially in emerging markets and Middle East and North Africa (MENA). Thus, according to Naceur and Ghazouani, (2007), Choong et al. (2010), Osamwonyi and Kasimu (2013) argue that economic growth is shaped by various factors and one of these factors is capital market development. However, there are other factors such as lower interest rate, government spending, consumer spending and increased confidence and financial stability that are dynamic in stimulating the economy and achieving higher living standards. In this respect, other studies argue

that the economic growth can be affected by several factors such as financial development, banking sector development, financial inclusion, stock market development, and innovation (Al Samman & Jamil, 2018).

The stock market is associated with economic growth because it is a source of financing for the private and public sectors (Osamwonyi & Kasimu, 2013). It is expected that stock markets elevates the economic growth and this can be achieved by maximizing the liquidity of financial assets, easing the diversification of global risk for investors, assisting investors in making wiser investment decisions, obliging managers to work harder to protect shareholders' interests, and lastly directing more retained earnings for corporations (Gürsoy &

Müslümov, 2000). One of the contributions of stock markets to economic growth is that publicly listed information such as the stock prices helps in making more informed investment decisions. This leads to better allocation of funds by enterprises and, as a result, higher economic growth (Gürsoy & Müslümov, 2000). While other studies (Popoola et al., 2017) found that the relationship is weak or non-existent, and that stock market performance does not affect economic growth in the case of Nigeria.

In the Gulf Cooperation Council (GCC) economies, which are very reliant on oil exports, as Arouri and Rault (2011) argue, “the results of the few available works on GCC countries are too heterogeneous” (p. 243). Over the past three decades, policymakers in the GCC countries have recognized the importance of increasing the stock market to achieve an optimal allocation of capital funds to different purposes in the economy, in order to move away from exclusive dependence on natural resources.

The stock market in that region is necessary as it plays a key role in achieving the concept of optimal resource allocation, hence, based on this fact, the existence of an efficient stock market is very important to achieve this goal. Furthermore, the stock market is still considered as a place to finance future investment opportunities. Therefore, financing such investments demands an efficient and well-functioning stock market. In this regard, this paper aims to study whether the development of the stock market has an impact on the economic growth of the GCC countries, since there is a lack of studies that examined this matter specifically on the GCC region. Furthermore, this paper examines more recent period (1993–2019) not covered by previous studies (Baral, 2019; Osaseri & Osamwonyi, 2019; Radikoko et al., 2019). Additionally, this paper provides implications that would help in setting sound policies in favour of creating well diversified economy in the GCC countries so as to depart from sole dependency on natural resources.

The remainder of the paper is structured as follows. Section 2 provides the background of the GCC, reviews the literature, and develops the hypothesis. While in Section 3 we present our sample, describe the variables, and models. Section 4 discusses the empirical results, and finally, Section 5 presents the conclusions, limitations, and suggestions for future research.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

2.1. The GCC background

The GCC countries have some common characteristics such as economic, political, and they generally share a high dependence on hydrocarbon products. The dependence on petroleum products varies to some extent from one country to another. For instance, Bahrain is less dependent on oil than Saudi Arabia or Kuwait. During the first decade of the twenty-first century, the GCC economies experienced significant economic growth due to high oil prices. The gross domestic product (GDP) growth in the GCC countries during this period recorded the fastest growth in the region, averaging 6.2% per annum (“IMF expects 6.5 percent GDP growth”, 2022). However, efforts for diversification and

liberalization of the economy in the GCC countries have been made to develop the private non-oil sector and all other service sectors to create employment opportunities for the GCC countries (Azam et al., 2016). However, it is important to note that institutional differences remain present between all the GCC countries. In particular, in the Saudi Arabian market, unlike the rest of the GCC countries, state entities highly dominate the market, however, but unfortunately they are not active traders. Thus, stock market capitalization is largely dependent on banks, and companies in the telecommunications and materials sectors.

Additionally, when it comes to liquidity, Saudi Arabia is the most liquid out of all the GCC markets, with a market turnover ratio of 28.2%. The markets of Bahrain, Kuwait, and the UAE are also considered highly liquid. However, the markets of Oman and Qatar are the least liquid of all the stock markets (Periola-Fatunsin et al., 2021). Furthermore, when measuring market capitalization as a percentage of GDP, it is more than half. This implies a unity between the GCC economies and their stock markets. Despite all this, oil still remains a major contributor to the GCCs economy. Overall, it can be argued that the stock market and oil are related in a certain way (Periola-Fatunsin et al., 2021).

2.2. Empirical review and research hypothesis

The relationship between the stock market and economic growth has been a topic of interest for researches and scientists. Carp (2012) and Sylvester and Enabulu (2011) presented controversial views, some of which found a positive correlation between certain variables, while others have corresponding doubts about this relationship. Financial development is very important for technological innovation and economic growth. As endogenous growth theory argues, well-developed stock markets can affect growth in numerous ways. First, stock markets facilitate the process of mobilizing domestic savings. Moreover, they facilitate portfolio diversification through the use of financial instruments. Second, the stock market creates an opportunity for share ownership, which is essentially risk sharing. Last but not least, it enables the efficient allocation of capital and funds, thus, making national and international investments more profitable (Caporale et al., 2005). The effect of stock markets on GDP growth varies between developed and developing economies. For instance, Filer et al. (1999) suggested that although stock market development has a positive impact on growth in developed economies, the effect in developing markets is still controversial. Also, Filer et al. (1999) argue that structural concerns in terms of limited access to information, market inefficiencies can be found which can dampen the positive impact of stock markets on GDP.

However, the study of the impact of stock market development on economic growth remains controversial. Some studies show that the stock market has an impact on economic growth. For example, Levine and Zervos (1998) argued that stock market liquidity and size are positive predictors of economic growth in a wide sample of countries, which can be predicted by stock market size and liquidity. They pointed out that more liquid stock markets are more likely to have higher rates of capital formation since firms can raise capital at a lower cost. Therefore, expansion, innovation, and

productivity gains can be increased through multiple sources of financing at a lower cost, which contributes to GDP growth. In the same context, Bekaert et al. (2005) examined the impact of financial liberalization on economic growth and found that countries that liberalized their stock markets experienced faster growth rates. Such findings can be explained by the fact that financial liberalization attracts foreign investment and increases the ability of domestic firms to raise funds, which leads to an increase in GDP. They also noted that creating a competitive business environment promotes economic growth: stock market liberalization promotes economic growth by creating a more competitive financial environment that encourages efficiency and productivity.

Ikikii and Nzomoi (2013) support this argument with a study that was conducted in Kenya. Using Granger causality to examine whether two variables (market capitalization and trade volume) have an impact on economic growth. They found that the Kenyan stock market, as measured by market capitalization, has a positive impact on GDP, align with the argument that stock market performance and economic growth improve each other due to the mutual causality between them. Furthermore, Sylvester and Enabulu (2011) suggest that there is a positive relationship between all stock market variables and economic growth in Nigeria. Rezina et al. (2017) investigated the impact of stock market indices on GDP in Bangladesh. The results highlight that there was a positive impact.

In the case of Germany, Adamopoulos (2010) found that economic growth is shaped by stock market development using the Granger causality test. Furthermore, other studies (Marques et al.,

2013; Bayar et al., 2014) confirmed that stock market development has a positive impact on economic growth. Regarding the capital acclamation, Beck and Levine (2004) emphasising the role of stock markets in facilitating capital accumulation and improving resource allocation. They indicated that stock markets facilitate resource allocation. Their findings suggest that GDP growth is driven by efficient resource allocation, which leads to healthier and more sustainable economic growth. Overall, the above literature underscores the significant role of stock market development in shaping economic growth. Thus, the hypothesis of the study can be formulated as follows:

H1: Stock market development plays a significant role in the economic growth of GCC countries.

3. RESEARCH METHODOLOGY

3.1. Data collection and empirical model

This study aims to examine the impact of stock market development on economic growth of the GCC economies, namely Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates. We gathered macroeconomic data that from the World Bank Outlook for the period 1993–2019. We used an unbalanced panel to avoid selection issues related to unreliable data for some countries.

The Table 1 below shows the independent and dependent variables used in our study. We used three dependent variables: *RGDP*, *GDPG*, and *GDPPC* to represent the economic growth, all of which representing economic growth.

Table 1. Variable definition

Variable	Definition
<i>LN</i>	Natural logarithm
<i>RGDP</i>	Real gross domestic product (inflation-adjusted GDP, which reflects the cost of goods in the economy)
<i>GDPG</i>	GDP growth, which compares the change in a country's economic output each year
<i>GDPPC</i>	A country's GDP divided by the country's population
<i>MC</i>	Market capitalization (the market value of shares of publicly traded companies)
<i>STR</i>	Trading stock turnover ratio (stock liquidity)
<i>LS</i>	Total number of listed domestic companies
<i>TVL</i>	Total value of traded shares (as a percentage of GDP)
<i>PC</i> (dummy variable)	Political conflict 2011–2012
<i>GFC</i> (dummy variable)	Global financial crises 2007–2009
<i>OR</i>	Oil rent is defined as the difference between the regional price of crude oil and the total production cost.

Source: The World Bank Outlook (<https://data.worldbank.org/indicator/NY.GDP.MKTP.KN>).

Regarding independent variables, *MC* represents market capitalization, whilst, the *TVL*, and *STR* referred to total value of stocks traded (as a percentage of GDP) and turnover ratio of stocks traded (stock liquidity) respectively (Radikoko et al., 2019; Bayar et al., 2014). *LS* denotes the total listed number of domestic companies to examine its impact on the GDP (Innocent & Ademola, 2017). Moreover, our study examines the effect of political conflict (*PC*) on the economic growth as a dummy variable. Also, this study employed another dummy variable to investigate whether the global financial crisis (*GFC*) has an impact on the economy. In addition to that the natural log of oil revenue (*OR*) variable was also examined, as GCC's economies are

known to be heavily dependent on oil, since they are considered one of the largest exporters of oil.

3.2. The empirical model

This study used the ordinary least square (OLS) model, which is a type of linear regression that has also been used in prior previous (Sylvester & Enabulu, 2011; Popoola et al., 2017). The OLS was used because it is the most traditional method for continuous data, especially when dummy variables are used. The empirical models above are designed to testing the hypothesis of the study.

$$LN RGDP_{it} = \beta_0 + \beta_1 MC_{it} + \beta_2 STR_{it} + \beta_3 LS_{it} + \beta_4 TVL_{it} + \beta_5 \ln OR_{it} + PC + GFC + \varepsilon_{it} \quad (1)$$

$$LN GDPG_{it} = \beta_0 + \beta_1 MC_{it} + \beta_2 STR_{it} + \beta_3 LS_{it} + \beta_4 TVL_{it} + \beta_5 \ln OR_{it} + PC + GFC + \varepsilon_{it} \quad (2)$$

$$LN GDPPC_{it} = \beta_0 + \beta_1 MC_{it} + \beta_2 STR_{it} + \beta_3 LS_{it} + \beta_4 TVL_{it} + \beta_5 \ln OR_{it} + PC + GFC + \varepsilon_{it} \quad (3)$$

The Eq. (1) examines the factors affecting real GDP, while Eq. (2) is for GDP growth, and lastly, Eq. (3) assesses for GDP per capita. In the equations above, β_0 denotes the beta coefficient, whilst $\beta_{1,...,5}$ stand for the beta coefficient for independent variables, and ε_{it} is the regression standard of error.

The variables were firstly run through a correlation matrix test to ensure that all independent variables are independent and have correlation a relationship with each other in any way.

4. RESULTS AND DISCUSSION

This section presents the results obtained through regression analysis using the OLS method. Our results are compared with those of previous studies to highlight the differences and similarities between them.

Table 2 shows the correlation between the variables. Any value above 0.5 means that there is a strong positive relationship, i.e., both variables change together. On the other hand, anything below -0.5 means that there is a strong negative correlation, i.e., an inverse relationship.

Table 2. Correlation matrix

Variables	OR	LS	MC	STR	TVL
OR	1	0.576	-0.231	0.492	0.431
LS	0.576	1	-0.165	0.379	0.072
MC	-0.231	-0.165	1	-0.005	0.274
STR	0.492	0.379	-0.005	1	0.9000
TVL	0.431	0.072	0.274	0.900	1

The correlation matrix shows that there is a strong correlation between the stock turnover ratio and the total value of stocks traded (as a percentage of GDP). Therefore, to obtain the most accurate results, eight models were run to investigate whether excluding some variables affects economic growth.

Tables 3-5 present the results of the OLS estimation for Models 1-8. For each model, the R-squared and F-statistic values were calculated. The R-squared value can be described as a form of static measure that explains the extent to which the input variables cause variation in the output variables (Figueiredo Filho et al., 2011).

In an analysis of the impact of the stock market on economic growth of the Gulf countries for the period 1993-2019, it was found that there is a positive relationship between stock market

capitalization and economic growth. The positive relationship between market capitalization and economic growth reveals the vital role of well-functioning capital markets in promoting long-term economic development. This finding is consistent with previous study by Baral (2019) who found similar effects. Demirgüç-Kunt and Maksimovic (1998) argue that higher market capitalisation encourages private sector development by facilitating a different source of financing. All this leads to a decrease in dependence on traditional bank loans. This finding is also supported by Beck and Levine (2004) who argue that larger market capitalization motivates both domestic and foreign investment, which leads to higher investor confidence and thus ensures economic stability and growth.

Table 3. Regression analysis for dependent variable *LNRGDP*

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
MC	1270*** 2.927	9209* 1.853	7254 1.576	6901 0.122	1160*** 2.700	6254 1.350	-2644 -0.046	7643 1.554
STR	2883*** 5.109	-	4425*** 6.818	-	2888*** 5.191	4285*** 6.599	-	-
LS	1389*** 4.288	1659*** 4.818	-	-	1428*** 4.420	-	-	1684*** 4.881
TVL	-	2530*** 3.174	-	4356*** 4.370	-	-	4192*** 4.192	2573*** 3.224
OR	-	-	-2.256* -1.684	-1.200 -0.781	-	1343 -1.302	-6492 -0.425	-
PC	9.346* 1.539	1.184* 1.810	1.028 1.573	1.327* 1.817	-	-	-	-
GFC	-4.093 -0.794	-1.148 -0.208	-7.340 -1.447	-3.897 -0.694	-	-	-	-
R-square	50%	41.4%	40.7%	25.4%	48%	37.2%	22%	39%
F-statistic	16.612	11.733	11.928	6.001	26.154	17.557	9.449	18.100

Note: * p-value < 0.10; ** p-value < 0.05; *** p-value < 0.01.

Table 4. Regression analysis for dependent variable *LNGDPG*

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
MC	0.004 0.293	-9.656 -0.007	0.024* 1.796	0.028* 1.840	0.002 0.130	0.023* 1.689	0.026* 1.723	-0.003 -0.192
STR	0.014 0.817	-	-0.021 -1.114	-	0.017 0.962	-0.016 -0.851	-	-
LS	-0.016 -1.573	-0.016 -1.642	-	-	-0.016 -1.627	-	-	-0.016 -1.667
TVL	-	0.024 1.036	-	-0.021 -0.784	-	-	-0.017 -0.654	0.025* 1.116
OR	-	-	0.098** 2.476	0.093** 2.282	-	0.095** 2.432	0.092** 2.312	-
PC	1.671 0.876	1.747 0.922	1.539 0.796	1.395 0.723	-	-	-	-
GFC	0.321 0.198	0.383 0.240	2.156 1.435	1.985 1.338	-	-	-	-
R-square	4.3%	4.7%	10.2%	9.6%	3.4%	7.6%	7.4%	3.7%
F-statistic	0.737	0.822	1.971	1.860	0.985	2.447	2.381	1.094

Note: * *p*-value < 0.10; ** *p*-value < 0.05; *** *p*-value < 0.01.

Table 5. Regression analysis for dependent variable *LNGDPPC*

Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
MC	57.31 1.145	37.24 0.704	91.32* 1.802	69.240 1.251	50.94 1.049	84.53* 1.681	60.48 1.095	28.83 0.561
STR	94.90 1.470	-	60.74 0.847	-	102.3 1.639	79.32 1.120	-	-
LS	-90.60** -2.401	-87.96** -2.379	-	-	-92.67** -2.511	-	-	-89.62** -2.464
TVL	-	125.2 1.490	-	113.2 1.154	-	-	125.5 1.283	131.8 1.594
OR	-	-	-112.7 -0.755	-133.8 -0.877	-	-119.0 -0.806	-127.6 -0.847	-
PC	4183 0.602	4830 0.700	6187 0.858	6772 0.945	-	-	-	-
GFC	1874 0.317	2533 0.434	7901 1.415	8195 1.492	-	-	-	-
R-square	10.5%	10.6%	8.2%	8.2%	8.8%	10%	5.5%	5.7%
F-statistic	1.901	1.913	1.519	1.652	3.086	1.689	1.782	3.034

Note: * *p*-value < 0.10; ** *p*-value < 0.05; *** *p*-value < 0.01.

In terms of liquidity, the stock turnover ratio (*STR*) stimulates economic growth, which is supported by the findings of Ikikii and Nzomoi (2013) and Radikoko et al. (2019), which suggest that the positive relationship between stock market liquidity and economic growth highlights the vital role of liquid financial markets in facilitating economic expansion. This finding may be justified by the fact that firms are more likely to access lower cost sources of finance in a liquid market. In addition, investors are more motivated to invest in liquid markets, providing firms with the capital they need to growth, innovation, and expansion (Levine, 1997).

The listed firms (*LS*) was the most effective. Listed companies on stock markets lead to improved economic growth in the GCC countries. A number of reasons can explain this positive relationship in terms of performance, regulation, governance, and activities of these companies. Investors are more likely to invest in publicly listed companies, which increase the capital channels for these listed companies (Smaoui & Nechi, 2017). In addition, publicly listed companies implement stricter disclosure and governance standards, all of which improve operational efficiency and increase investor confidence. In this matter, Levine and Zervos (1996) underscore that productivity growth and innovation are generated by better managed companies, thereby improving overall economic performance.

A positive relationship between oil revenue and economic growth in GCC countries is not unexpected, as oil revenue is considered a key driver of economic development in the GCC economies. Economic growth in the GCC is significantly correlated with high oil prices. This fiscal surplus

was evident during the 2000–2010 period when oil prices rose sharply, leading the GCC countries to channel oil revenues into education and health, thereby improving human capital and economic growth. This finding is consistent with diversification strategies aimed at reducing dependence on oil exports. For instance, Saudi Arabia's Vision 2030¹ states that oil revenues will be utilised to develop other sources of national income via generating non-oil sectors such as tourism, technology, and manufacturing to transform the economy from oil-based economy to well-diversified economy.

This implies that the stock turnover ratio (*STR*), oil rents (*OR*), and market capitalization (*MC*) have the greatest impact on economic growth. The reason that the other variables were not as effective could be due to numerous factors. The *LS* and *TVL* variables yielded negative results in some models; this may be because not all companies listed on the stock market are significant or do not do well in terms of stock value.

5. CONCLUSION

The objective of this study is to examine the impact of stock market development on economic growth of the GCC countries from 1993 to 2019. The data for this study was collected from the World Bank's outlook, and processed and analyzed using linear regression.

The results of this study are useful for potential investors, both local and foreign, to make

¹ <https://www.vision2030.gov.sa>

decisions related to investing in this region. As it allows local companies to see that they are publicly listed on the stock market and get some benefits in terms of multiple sources of finance. It also indicates to foreign investors that investing in this region can be financially beneficial to them in terms of earning profit, which will also indirectly impact the economy in a positive way. High stock turnover ratio, which demonstrates market liquidity, is crucial to promote economic growth and hence policy efforts should be aimed at reducing transaction costs to stimulate trading activity. Therefore, policymakers in the GCC countries should focus on strengthening stock markets through better regulation, transparency and enhanced investor protection.

Regarding the heavily dependent on oil, policymakers in the GCC countries should start working on formulating sound policies that will facilitate the transition of the economy from oil-producing to well-diversified, since oil is a non-renewable resource, so an economy that mainly depends on it is not profitable in the long run.

On the other hand, the dummy variables political conflict (PC) and global financial crises (GFC) clearly showed that they had a huge impact on economic growth, as the models that contained them had greater impact on the economy than the models that did not put them into account. To summarize, since the two strongest stock market variables (STR and MC) had a positive impact on GDP, it means that the stock market has a positive impact on economic growth. The limitations we encountered in this study are related to focusing exclusively on the stock market variables, excluding other variables such as market concentration and banking system development. In addition, the lack of data before 1993 suggests that the results may not reflect long-term trends or recent developments in the stock market and economic growth. Future research could extend the examination to include other emerging countries, allowing for comparative visions into how stock development impacts economic growth, taking into account different regulation, market structure and institutional quality.

REFERENCES

- Adamopoulos, A. (2010). Stock market and economic growth: An empirical analysis for Germany. *Business and Economics Journal*, 1(1). <https://www.hilarispublisher.com/open-access/stock-market-and-economic-growth-an-empirical-analysis-for-germany-2151-6219-1-001.pdf>
- Al Samman, H., & Jamil, S. A. (2018). The impact of foreign direct investment (FDI) on stock market development in GCC countries. *Pertanika Journal of Social Sciences & Humanities*, 26(3), 2085-2100. <https://ssrn.com/abstract=3671037>
- Arouri, M., & Rault, C. (2011). Oil prices and stock markets: What drives what in the Gulf Cooperation Council countries? *International Journal of Finance & Economics*, 17(3), 242-253. <https://doi.org/10.1002/ijfe.443>
- Azam, M., Haseeb, M., Samsi, A. B., & Raji, J. O. (2016). Stock market development and economic growth: Evidences from Asia-4 countries. *International Journal of Economics and Financial Issues*, 6(3), 1200-1208. <https://www.econjournals.com/index.php/ijefi/article/view/2568/pdf>
- Baral, K. B. (2019). Effects of stock market development on economic growth in Nepal. *Janapriya Journal of Interdisciplinary Studies*, 8, 91-103. <https://doi.org/10.3126/jjis.v8i0.27302>
- Bayar, Y., Kaya, A., & Yıldırım, M. (2014). Effects of stock market development on economic growth: Evidence from Turkey. *International Journal of Financial Research*, 5(1), 93-100. <https://doi.org/10.5430/ijfr.v5n1p93>
- Beck, T., & Levine, R. (2004). Stock markets, banks, and growth: Panel evidence. *Journal of Banking and Finance*, 28(3), 423-442. [https://doi.org/10.1016/S0378-4266\(02\)00408-9](https://doi.org/10.1016/S0378-4266(02)00408-9)
- Bekaert, G., Harvey, C. R., & Lundblad, C. (2005). Does financial liberalization spur growth? *Journal of Financial Economics*, 77(1), 3-55. <https://doi.org/10.1016/j.jfineco.2004.05.007>
- Caporale, G. M., Howells, P., & Soliman, A. M. (2005). Endogenous growth models and stock market development: Evidence from four countries. *Review of Development Economics*, 9(2), 166-176. <https://doi.org/10.1111/j.1467-9361.2005.00270.x>
- Carp, L. (2012). Analysis of the relationship between FDI and economic growth: A literature review study. *The USV Annals of Economics and Public Administration*, 12(1), 154-160. <http://www.annals.seap.usv.ro/index.php/annals/article/view/467/460>
- Choong, C. K., Baharumshah, A. Z., Yusop, Z., & Habibullah, M. S. (2010). Private capital flows, stock market and economic growth in developed and developing countries: A comparative analysis. *Japan and the World Economy*, 22(2), 107-117. <https://doi.org/10.1016/j.japwor.2009.07.001>
- Demirgüç-Kunt, A., & Maksimovic, V. (1998). Law, finance, and firm growth. *The Journal of Finance*, 53(6), 2107-2137. <https://doi.org/10.1111/0022-1082.00084>
- Figueiredo Filho, D. B., Silva, J. A., Jr., & Rocha, E. C. (2011). What is R2 all about?. *Leviathan (São Paulo)*, 3, 60-68. <https://doi.org/10.11606/issn.2237-4485.lev.2011.132282>
- Filer, R. K., Hanousek, J., & Campos, N. F. (1999). *Do stock markets promote economic growth?* (CERGE-EI Working Paper No. 151). Center for Economic Research and Graduate Education — Economics Institute. <https://www.cerge-ei.cz/pdf/wp/Wp151.pdf>
- Gürsoy, C. T., & Müslümov, A. (2000). Causal relationships between stock markets and economic growth in Gulf countries. *Doğuş University Journal*, 1, 124-134. <https://doi.org/10.31671/dogus.2019.400>
- Ikikii, S. M., & Nzomo, J. N. (2013). An analysis of the effects of stock market development on economic growth in Kenya. *International Journal of Economics and Finance*, 5(11), 145-151. <https://doi.org/10.5539/ijef.v5n11p145>
- IMF expects 6.5 percent GDP growth for GCC countries. (2022, December 1). *Asharq Al-Awsat*. <https://english.aawsat.com/home/article/4018516/imf-expects-65-percent-gdp-growth-gcc-countries>
- Innocent, A., & Ademola, O. A. (2017). Stock market and economic growth in Nigeria. *International Journal of Economics and Social Science Studies*, 2(6), 97-10. <https://doi.org/10.24001/ijels.2.6.15>
- Levine, R. (1997). Financial development and economic growth: Views and agenda. *Journal of Economic Literature*, 35(2), 688-726. <https://www.jstor.org/stable/2729790>

- Levine, R., & Zervos, S. (1996). Stock market development and long-run growth. *The World Bank Economic Review*, 10(2), 323-339. <https://doi.org/10.1093/wber/10.2.323>
- Levine, R., & Zervos, S. (1998). Stock markets, banks, and economic growth. *The American Economic Review*, 88(3), 537-558. <https://www.jstor.org/stable/116848>
- Marques, L. M., Fuinhas, J. A., & Marques, A. C. (2013). Does the stock market cause economic growth? Portuguese evidence of economic regime change. *Economic Modelling*, 32, 316-324. <https://doi.org/10.1016/j.econmod.2013.02.015>
- Naceur, S. B., & Ghazouani, S. (2007). Stock markets, banks, and economic growth: Empirical evidence from the MENA region. *Research in International Business and Finance*, 21(2), 297-315. <https://doi.org/10.1016/j.ribaf.2006.05.002>
- Osamwonyi, I. O., & Kasimu, A. (2013). Stock market and economic growth in Ghana, Kenya, and Nigeria. *International Journal of Financial Research*, 4(2), 83-98. <https://doi.org/10.5430/ijfr.v4n2p83>
- Osaseri, O. I., & Osamwonyi, I. O. (2019). Impact of stock market development on economic growth in Nigeria. *International Journal of Economics and Financial Research*, 5(6), 1-9. <https://doi.org/10.5430/ijfr.v10n1p23>
- Periola-Fatunsin, O., Oliyide, J. A., & Fasanya, I. O. (2021). Uncertainty due to pandemic and the volatility connectedness among Asian REITs market. *Asian Economics Letters*, 2(2), 23-34. <https://doi.org/10.46557/001c.22323>
- Popoola, O. R., Ejemeyovwi, O. J., Alege, O. P., Adu, O., & Onabote, A. (2017). Stock market and economic growth in Nigeria. *International Journal of English Literature and Social Sciences*, 2(6), 97-106. <https://doi.org/10.24001/ijels.2.6.15>
- Radikoko, I., Mutobo, S. A., & Mphoeng, M. (2019). The impact of stock market development on economic growth: The case of Botswana. *International Journal of Economics and Finance*, 11(12), 149-159. <https://doi.org/10.5539/ijef.v11n12p149>
- Rezina, S., Jahan, N., & Mustafi, M. A. A. (2017). Contribution of stock market towards economic growth: An empirical study on Bangladesh economy. *European Scientific Journal*, 13(4), Article 238. <https://doi.org/10.19044/esj.2017.v13n4p238>
- Smaoui, H., & Nechi, S. (2017). Does sukuk market development spur economic growth? *Research in International Business and Finance*, 41, 136-147. <https://doi.org/10.1016/j.ribaf.2017.04.018>
- Sylvester, O., & Enabulu, G. O. (2011). The effect of stock market on economic growth in Nigeria. *Journal of Research in National Development*, 9(1), 287-295. <https://www.ajol.info/index.php/jorind/article/view/92628>

THE EFFECT OF FINTECH ON BANKS' PERFORMANCE AND ACCOUNTABILITY IN TUNISIA: AN EMPIRICAL ANALYSIS

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Abstract

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The development of financial technology (FinTech) systems by banks to support businesses helps them meet community needs, support the national economy, and promote job creation and investment (Almashhadani & Almashhadani, 2023). The main goal is to determine the impact of FinTech on the performance of Tunisian banks, in particular, the impact of FinTech on the profitability of 12 Tunisian banks for the period from Q2 2020 to Q3 2022, collected from quarterly financial statements. The generalized least squares (GLS) method is used to estimate the panel models. On the other hand, to improve the credibility of the results, several generalized method of moments (GMM) estimation robustness tests were carried out to confirm the GLS results. The analysis used the return on assets (ROA) as an index to determine the level of profitability. The result of this study showed that bank profitability was significantly affected by FinTech services, including payment technology and artificial intelligence (AI). The implications of this analysis are reflected in better-informed decisions on the part of investors. This gives inventors and innovators a chance to emerge, as banks seek to improve their efficiency through FinTech (Dasilas & Karanović, 2023; Phama et al., 2024). Banks will be encouraged to use FinTech, and the more customers they attract, the higher the bank's productivity and profit will be. This study is one of the first conducted in Tunisia. It has contributed to the enrichment of research on FinTech and its impact on bank efficiency.

Keywords: FinTech, Payment Technology, Artificial Intelligence, Banking Profitability, Tunisian Banks

Authors' individual contribution: The Author is responsible for all the contributions to the paper according to CRediT (Contributor Roles Taxonomy) standards.

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1. INTRODUCTION

Financial technology (FinTech) is considered as a financial service or financial management that is based on technology and aims to create innovations in the financial sector (Puschmann, 2017). In addition, FinTech encompasses electronic payment services such as virtual currencies, financing, financial advisors, and bots. It involves the creation of new or existing financial products and services that improve security, reduce costs, and promote financial inclusion, leading to better economic growth and financing (Mention, 2019).

FinTech is characterized by enormous heterogeneity, which has led to the birth of multiple forms of FinTech, including blockchain, Ethereum, Bitcoin, and cryptocurrency in general (Thakor, 2020). Therefore, the study of the relationship between FinTech and traditional financial institutions has interested many researchers, such as Milian et al. (2019), who show that FinTech occupies an essential place in finance. On the other hand, the impact of FinTech on banks is still questionable, which suggests that more empirical work should be conducted to study the relationship between FinTech and bank performance.

Disclosed data has an important role to play in company performance in finance. Leung and Ton (2015) found that data in the Australian stock market had a significant influence on share performance. Similarly, Li et al. (2018) and Audrino et al. (2020) found the same result. Among these data are social media, press articles, etc. In terms of the relationship between FinTech and banks, they may be competitive or associated (Navaretti et al., 2018; Vives, 2019); furthermore, FinTech information is likely to influence bank performance. These studies demonstrate that FinTech can be measured by information on the Internet, which encourages research into the influence of FinTech on bank performance. Consequently, this work examines the connection between FinTech and bank performance in countries undergoing growth, where FinTech represents the most essential factor in the distribution of financial products to bank users who do not have a bank account. Tunisia is an appropriate example for this work. There isn't a huge amount of FinTech data on finance websites in Tunisia, which can be exploited to study the progress of FinTech. Examples of data such as payment technology and artificial intelligence (AI) promote the development of the transaction process in the banking sector (Farishy, 2023).

The most important aspect of this essay is its discussion of how AI could benefit the banking sector. In addition, we note that research into the measurement of FinTech indicators through this data is very limited. Thus, it emerges that there is a shortage of research findings and that this needs to be addressed. This is why the problem of our research is the following:

RQ: Is there an effect between FinTech and the performance of Tunisian banks?

Therefore, this research paper examines the link between FinTech and bank performance, where FinTech is the most vital means of supplying financial services to banked users. This gap shows the contribution to the existing literature on considering this effect.

Previous research into the relationship between FinTech and performance in the banking sector has produced mitigated outcomes. For example, Sheng (2021) and Dasilas and Karanović (2023) found a positive connection between FinTech and performance. This positive effect means that the significance of FinTech practices for financial performance has improved. Other authors found a negative connection between these two variables. This negative effect means that the primary obstacle to applying FinTech was the absence of appropriate government and other stakeholders.

In this research, we aim to investigate in more detail the role of FinTech in influencing the financial profitability of banks, using FinTech information from banks in Tunisia over the period from Q2 2020 to Q3 2022. The sample for this research was provided by bank websites. We study the influence of FinTech scores, AI, and payment technology on a bank's financial profitability (ROA). The panel data methodology with generalized least squares (GLS) estimates is employed to measure the influence of FinTech on performance.

This study presents a number of contributions on bank performance. Firstly, it analyzes the FinTechs of Tunisian banks, which have so far not been studied in academic research. Subsequently, this study explores the two FinTech

indices in more detail in order to clarify which one is most appropriate for the Tunisian banking sector. Finally, this study includes a detailed look at the two main FinTech criteria.

The rest of the paper is presented as follows. Section 2 reviews the literature, identifies research gaps, and develops the hypothesis. Section 3 presents the research methodology. Section 4 provides the results and discussion. Finally, Section 5 concludes the paper.

2. LITERATURE REVIEW

With the advancement of technology, the banking industry faces increasing competitive pressures that require institutions to enhance their ability to maximize performance in pursuit of sustainable competitive advantages (Murinde et al., 2022).

FinTech has assumed an increasingly vital role in banking technology innovation. Its impact can be seen in various areas, such as profitability, customer experience, operational efficiency, risk management, and product development (Chen et al., 2021).

The review of previous studies will focus on the studies in the past five years. Eltweri (2020) analyzed the impact of FinTech services on the performance of financial indicators. He stated that FinTech challenges the traditional structures of financial services and aims to optimize them and increase their degree of efficiency. Therefore, FinTech plays a role in the performance of banks, and many previous studies have focused on identifying various factors that affect business profitability, such as Li et al. (2018), Ntwiga (2020), Alkhazaleh and Haddad (2021), Hornuf et al. (2021), Alwi (2021), Ebrahim et al. (2021), Pollari (2016), Sheng (2021), Dasilas and Karanović (2023), Kayed et al. (2024), and De Boyrie and Pavlova (2025).

Li et al. (2018) found a positive interaction between FinTech and the revenue and profit of banks. In addition, Ntwiga (2020) verified the effective and positive impact of FinTech on the banking sector. In his study, he used the financial statement data of five banks from 2009 to 2018 and divided them into two periods: before the use of FinTech from 2009 to 2014 and the period of using FinTech from 2015 to 2018. The result showed a positive and effective impact between FinTech and banks, and that the performance of banks improved during the period of using FinTech. Similarly, Alkhazaleh and Haddad (2021) found a positive link between the two, as customers' trust in the banks grows after the use of FinTech. In addition, Hornuf et al. (2021) pointed out that FinTech has a positive impact on banks, as they have entered into agreements with FinTech companies to create their own software. In addition, Alwi (2021) in his review indicated that FinTech helps customers to carry out banking transactions while staying at home. It applied control measures in banks, such as share price, profits, and losses, over the period 2015-2019. There is a positive impact on bank profits and stock prices. Ebrahim et al. (2021) argued that FinTech is much preferable to traditional transactions because it makes it easier to serve users and retains information better, and makes it more useful. Again, according to Pollari (2016), FinTech enables electronic payments, which help maintain distance and safety between people during the pandemic. In addition, bank customers and managers prefer electronic payments due to lower costs and fees.

In addition, Sheng's (2021) study also examined the impact of FinTech on bank efficiency and the credit level behavior of institutions. This author used the method of analyzing the financial statements and records of banks from 2011 to 2018. Their results show that FinTech improves the ability of banks to obtain loans for institutions and that FinTech is useful in strengthening small banks. Dasilas and Karanović (2023) investigated the impact of FinTech on bank efficiency using the United Kingdom (UK) banking sector data for the period from 2010 to 2019. Using panel data regression, the results show that FinTech firms have a positive impact on bank efficiency. Kayed et al. (2024) aimed to study the impact of FinTech on the efficiency of 13 Jordanian banks from 2010 to 2019. Using panel data analysis to estimate the impact of FinTech development on banks. The results show that FinTech development in banks significantly increases bank profitability, indicating a significant and positive impact on financial performance. De Boyrie and Pavlova (2025) analyzed the impact of FinTech innovation on bank efficiency for the period from 2010 to 2022 using system generalized method of moments (GMM) estimators to examine this impact. The results show a positive impact between these variables.

In summary, the impact of FinTech on bank profitability is a multifaceted and complex topic that warrants new developments in empirical research. The existing literature highlights the need for a qualified understanding of how FinTech affects various aspects of banking. As FinTech increasingly displaces the financial sector, it is essential for academics and professionals to keep up with these changes and develop their approaches. Consequently, we investigate the impact of FinTech on the profitability of Tunisian banks. Therefore, we formulate the following hypothesis:

H1: There is a positive relationship between FinTech and bank profitability.

3. RESEARCH METHODOLOGY

3.1. Model

To study the relationship between FinTech and performance, we estimate a panel data model from

a representative sample of Tunisian banks' data from Q2 2020 to Q3 2022. Our sample consists of the FinTech of Tunisian banks from financial statements. For this investigation, we selected 12 conventional Tunisian banks. In fact, this data covers the period from Q2 2020 to Q3 2022. Since Q1 2020 is a transition period, it was not included in the data collection.

To study the impact of FinTech on ROA, we establish an empirical model by estimating a regression model.

$$ROA_{it} = \alpha_0 + \alpha_1 PT_{it} + \alpha_2 AI_{it} + \varepsilon_{it} \quad (1)$$

where,

- ROA_{it} explains the performance of bank i at time t ;
- PT_{it} and AI_{it} explain the financial ratios of bank i at time t ;
- ε_{it} is the error term;
- α_0 is the constant and α_1 - α_2 are the vectors of coefficient estimates.

3.2. Performance variable

According to Almashhadani and Almashhadani (2023), Alnsour (2023), and Pham et al. (2024), the banking performance variable has been defined by return on assets (ROA). This ratio is a dependent variable.

3.3. FinTech variables

Regarding the independent variables, this study was based on two variables: artificial intelligence (AI) and payment technology (PT). These variables are defined as dichotomous variables. According to Farishy (2023), the development of AI has helped to optimize e-finance as transactions based on manual or statistical models have become smarter, more reliable, and innovative. The second variable— PT — is determined by the preferences of bank customers for technological payments, which makes it possible to make financial transactions and receive account information through their smartphones (Tiyani et al., 2021; Anindyastri et al., 2022; Alghadi, 2024). This payment method includes a more effective security system. Table 1 below summarizes all the variables.

Table 1. Variable measurements

Variables	Abbreviation	Formulas
Dependent variable		
Return on assets	ROA	Net income / Total assets
Independent variables		
Artificial intelligence	AI	Dichotomous variable that takes the value 1 if the variable applies to the bank and 0 otherwise
Payment technology	PT	

Source: Author's elaboration.

4. RESULTS AND DISCUSSIONS

4.1. Descriptive statistics

Table 2 presents the results of the descriptive statistical analysis conducted to assess the contribution of FinTech to the profitability of Tunisian banks. For ROA (the dependent variable), the mean value of bank profitability is 0.0237, the standard deviation

is 0.0316, and the min/max values are 0.0002 and 0.1087, respectively.

In contrast, for PT, the mean is 0.8500 and the standard deviation is 0.3585, with the minimum and maximum values being 0.000 and 1.000, respectively. Similarly, for the second variable, AI, the mean is 0.9000 and the standard deviation is 0.3012, with the minimum and maximum values being 0.000 and 1.000, respectively.

Table 2. Descriptive statistics

Variables	Mean	Standard deviation	Minimum	Maximum
ROA	0.0237	0.0316	0.0002	0.1087
PT	0.8500	0.3585	0.000	1.0000
AI	0.9000	0.3012	0.000	1.0000

Source: Author's elaboration.

4.2. Correlation matrix

Table 3 illustrates the relationship between the variables and their variance inflation factor (VIF). It is obvious that multicollinearity does not occur.

The optimal correlation value is 0.793, which is less than 0.8 (Gujarati & Porter, 2009). As for the independent variables, their VIF value is below 10 (Hair et al., 2010).

Table 3. Correlation matrix

Variables	ROA	PT	AI
Panel A: Correlation matrix			
ROA	1.000		
PT	0.205**	1.000	
AI	0.177*	0.793***	1.000
Panel B: Variance inflation factor			
VIF		3.28	2.71

Note: ***, **, and * indicate the significance level of 1%, 5%, and 10%, respectively.

Source: Author's elaboration.

According to the correlation matrix, FinTech measures (PT and AI) are positively related to ROA. This means that improving these factors can lead to higher ROA. These results are consistent with the studies of Almashhadani and Almashhadani (2023), Alnsour (2023), Alghadi (2024), and Phama et al. (2024).

4.3. Panel data tests

4.3.1. Hausman test

The Hausman test is designed to distinguish between the fixed-effects (FE) model and the random-effects (RE) model. When the p-value ratio for the RE is less than 5%, the FE model should be used. The RE model is chosen when the p-value level is greater than 5%.

Table 4. Hausman test

Equation	p-value
ROA	0.9962

We found that the Hausman p-value is greater than 5%, which leads us to choose the RE panel data. In this case, the RE panel data is retained. And according to the Hausman test, we found that the effects are random for this regression.

4.3.2. Heteroscedasticity and autocorrelation test

We apply the modified Wald test to check for heteroscedasticity. The modified Wald test is significant for all variables (p-value = 0.000), indicating the problem of heteroscedasticity of RE.

We performed the Wooldridge test to validate the autocorrelation test. This test is significant for all variables (p-value = 0.000). This leads us to assert the necessity of an autocorrelation problem.

Table 5. Test for heteroscedasticity and autocorrelation

Equation	Heteroscedasticity test	Autocorrelation test
	p-value	p-value
ROA	0.000***	0.000***

Note: *** indicates the significance level of 1%.

Source: Author's elaboration.

4.4. Empirical results

Table 6 shows the regression results between the dependent variable (ROA) and the independent variables using the GLS model.

Table 6. Impact of the FinTech on the profitability of Tunisian banks

Variables	Coefficients	P > Z
PT	0.0019	0.0511***
AI	0.0004	0.0885***
Constant	0.6922	0.0578***
R ²		0.0429**
Wald Chi ²	8.46	0.0132***

Note: This table presents the GLS regression results for the impact of the FinTech on the profitability of Tunisian banks. The p-value is shown in parentheses. ***, **, and * indicate the significance level of 1%, 5%, and 10% levels, respectively.

Source: Author's elaboration.

Regarding the coefficient of determination (R²), in this study, the ROA variable has a value of R² = 0.0429, which explains that 4.29% of the conflict in banks' profitability (ROA) can be clarified by the FinTech variable.

Table 6 confirms that all assumptions were valid. The findings show that FinTech has a positive and significant correlation with ROA, with the PT

variable having p = 0.0511 and the AI variable having p = 0.0885. In this case, we can see that FinTech has a significant positive impact on banks' profitability. This result is consistent with previous research by Li et al. (2018), Ntwiga (2020), Alkhazaleh and Haddad (2021), Hornuf et al. (2021), Alwi (2021), Ebrahim et al. (2021), Pollari (2016), Sheng (2021), Almashhadani and Almashhadani (2023), who

proved a strong correlation between FinTech and banking performance. The increasing consumer awareness of FinTech and technology-based banking products has led to an increase in the demand for banking products, as well as an increase in bank revenues.

4.5. Discussions

The results are very important for understanding the complex relationship between FinTech and bank profits in Tunisia. Firstly, the results of this study appear to indicate an encouraging and statistically significant positive impact of the use of FinTech on the banking sector. The correlation metric indicates a high and statistically significant positive relationship between these variables. This is why FinTech acts as a stimulus for competitors, as banks use technology to help guide this growth and the implementation of their strategies and procedures (Hair et al., 2017).

The methodology of this study includes different sample types and sizes, as well as data collection approaches, which include validation within a regional reference framework. Although the results help to clarify the overall socio-economic and regulatory structures of the banking sector in Tunisia, it is essential to consider them in this broader context.

Moreover, it's vital to appreciate that the FinTech ecosystem is a rapidly changing and highly dynamic area in which to innovate. The rapid adoption of new technologies and the evolution of customer needs oblige banks not to adopt a rigid approach. Therefore, they must remain proactive and continuously evaluate their FinTech strategies to achieve a sustainable competitive advantage in the market and improve their performance in the long term (Dwivedi et al., 2022).

5. CONCLUSION

In this research paper, a panel model was developed to study the impact of FinTech on bank efficiency, using quantitative studies that exist on the determinants of banks' performance. We use the financial reports from Q2 2020 to Q3 2022 of the 12 Tunisian banks to extract FinTech data. The results of the estimation in this paper are the findings of the GLS method.

According to the findings, it is obvious that FinTech, represented by two independent variables in this study, plays a positive and important role in the financial performance of banks. This means that the more reliable the FinTech services in banks, the better the financial performance. In addition, this study found that as the quantity of virtual financial services offered to customers increases, the quality and performance of banks increase.

The results are scientifically significant indicators for banks and FinTech companies. This study has established a link between new FinTech companies and the performance of banks. Against this background, we propose that banks should create a service to collect FinTech information and then evaluate and take it into account as an indispensable tool to adapt to the evolution of FinTech. In addition, FinTech companies will likely work with the media to increase the amount of FinTech information, focusing on FinTech products. This helps to stimulate consumer adoption of FinTech companies' financial products. We believe that FinTech companies will benefit from competing with commercial banks.

The findings are critical not only to improve understanding of the links between FinTech and banking performance, but also offer industry experts and policymakers ideas to address the impact of FinTech on their financial systems. Financial institutions in this region need to focus their efforts on creating comprehensive FinTech strategies that consider financial abilities and policy approaches to obtain the highest value and sustainable results.

The study has certain limitations. For example, we used a short period. In future research, we will expand the period. Thus, we chose only two FinTech variables and a single performance variable. This will guide us in using other variables.

Thus, this study was intuitive for future research as there are other factors whose impact on financial performance needs to be clarified. In particular, other FinTech services are provided by new companies, particularly banks. Again, other financial indices, such as liquidity ratios and solvency ratios, can be used in our study instead of ROA. We can use financial institutions other than banks in future surveys and also choose another Middle East and North Africa region to study and analyze this impact, which will make future studies more relevant for researchers.

REFERENCES

- Alghadi, M. (2024). The influence of some FinTech service on the performance of Islamic bank in Jordan. *International Journal of Data and Network Science*, 8(1), 395-400. <https://doi.org/10.5267/j.ijdns.2023.9.015>
- Alkhazaleh, A. M. K., & Haddad, H. (2021). How does the FinTech services delivery affect customer satisfaction: A scenario of Jordanian banking sector. *Strategic Change*, 30(4), 405-413. <https://doi.org/10.1002/jsc.2434>
- Almashhadani, H. A., & Almashhadani, M. (2023). The impact of financial technology on banking performance: A study on foreign banks in UAE. *International Journal of Scientific and Management Research*, 6(01), 1-21. <https://doi.org/10.37502/IJSMR.2023.6101>
- Alnsour, I. R. (2023). The effect of financial technology on Islamic banks performance in Jordan: Panel data analysis. *International Journal of Data and Network Science*, 7, 1515-1524. <https://doi.org/10.5267/j.ijdns.2023.8.011>
- Alwi, S. (2021). FinTech as financial inclusion: Factors affecting behavioral intention to accept mobile e-wallet during COVID-19 outbreak. *Turkish Journal of Computer and Mathematics Education*, 12(7), 2130-2141. <https://turcomat.org/index.php/turkbilmate/article/view/3356>
- Anindyastri, R., Lestari, W. D., & Sholahuddin, M. (2022). The influence of financial technology (FinTech) on the financial performance of Islamic banking (Study on Islamic banking listed on the Indonesia Stock Exchange period 2016-2020). *Benefit: Jurnal Manajemen dan Bisnis*, 7(1), 80-92. <https://doi.org/10.23917/benefit.v7i1.18051>

- Audrino, F., Sigrist, F., & Ballinari, D. (2020). The impact of sentiment and attention measures on stock market volatility. *International Journal of Forecasting*, 36(2), 334–357. <https://doi.org/10.1016/j.ijforecast.2019.05.010>
- Chen, Y., Mandler, T., & Meyer-Waarden, L. (2021). Three decades of research on loyalty programs: A literature review and future research agenda. *Journal of Business Research*, 124, 179–97. <https://doi.org/10.1016/j.jbusres.2020.11.057>
- Dasilas, A., & Karanović, G. (2023). The impact of FinTech firms on bank performance: Evidence from the UK. *EuroMed Journal of Business*, 20(1), 244–258. <https://doi.org/10.1108/EMJB-04-2023-0099>
- De Boyrie, M. E., & Pavlova, I. (2025). Bank acquisitions of AI and FinTech: impact on performance. *Managerial Finance*, 51(5), 797–817. <https://doi.org/10.1108/MF-04-2024-0314>
- Dwivedi, Y. K., Hughes, L., Baabdullah, A. M., Ribeiro-Navarrete, S., Giannakis, M., Al-Debei, M. M., Dennehy, D., Metri, B., Buhalis, D., Cheung, C. M. K., Conboy, K., Doyle, R., Dubey, R., Dutot, V., Felix, R., Goyal, D. P., Gustafsson, A., Hinsch, C., Jebabli, I., ... Wamba, S. F. (2022). Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 66, Article 102542. <https://psycnet.apa.org/doi/10.1016/j.ijinfomgt.2022.102542>
- Ebrahim, M. A., Mgamal, M. H., & Senan, N. (2021). FinTech and financial sector performance in Saudi Arabia: An empirical study. *Journal of Governance and Regulation*, 12(2), 43–65. <https://doi.org/10.22495/jgrv12i2art5>
- Eltweri, A. (2020). FinTech in Africa. *The International EFA-IT BLOG: Information Technology innovations in Economics, Finance, Accounting, and Law*, 1(12). <https://www.alexander.it/31-FinTechAfrica.pdf>
- Farishy, R. (2023). The use of artificial intelligence in banking industry. *International Journal of Social Service and Research*, 3(7), 1724–1731. <https://doi.org/10.46799/ijssr.v3i7.447>
- Gujarati, D. N., & Porter, D. C. (2009). *Basic econometrics* (5th ed.). McGraw Hill.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). *Multivariate data analysis* (7th ed.). Pearson.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). SAGE Publications.
- Hornuf, L., Klus, M. F., Lohwasser, T. S., & Schwiendbacher, A. (2021). How do banks interact with FinTech startups? *Small Business Economics*, 57(3), 1505–1526. <https://doi.org/10.1007/s11187-020-00359-3>
- Kayed, S., Alta'any, M., Meqbel, R., Khatatbeh, I. N., & Mahafzah, A. (2024). Bank FinTech and bank performance: Evidence from an emerging market. *Journal of Financial Reporting and Accounting*, 23(2), 518–535. <https://doi.org/10.1108/JFRA-09-2023-0526>
- Leung, H., & Ton, T. (2015). The impact of internet stock message boards on cross-sectional returns of small-capitalization stocks. *Journal of Banking & Finance*, 55, 37–55. <https://doi.org/10.1016/j.jbankfin.2015.01.009>
- Li, Y., Spigt, R., & Swinkels, L. (2018). The impact of FinTech start-ups on incumbent retail banks' share prices. *Financial Innovation*, 3, Article 26. <https://doi.org/10.1186/s40854-017-0076-7>
- Mention, A. L. (2019). The future of FinTech. *Research-Technology Management*, 62(4), 59–63. <https://doi.org/10.1080/08956308.2019.1613123>
- Milian, E. Z., de Spinola, M., & de Carvalho, M. M. (2019). FinTechs: A literature review and research agenda. *Electronic Commerce Research and Applications*, 34, Article 100833. <https://doi.org/10.1016/j.elerap.2019.100833>
- Murinde, V., Rizopoulos, E., & Zachariadis, M. (2022). The impact of the FinTech revolution on the future of banking: Opportunities and risks. *International Review of Financial Analysis*, 81, Article 102103. <https://doi.org/10.1016/j.irfa.2022.102103>
- Navaretti, G. B., Calzolari, G., & Pozzolo, A. F. (2017). FinTech and banking. Friends or foes? *European Economy*, 2, 9–30. https://european-economy.eu/wp-content/uploads/2017/07/EE_2.2017.pdf#page=11
- Ntwiga, N. L. (2020). *Effect of mobile banking on the financial performance of commercial banks in Kenya*. University of Embu. <https://repository.embuni.ac.ke/handle/embuni/2494>
- Phama, P. T., Tran, B. A., & Huynh, T. H. (2024). Impact of FinTech's development on bank performance: An empirical study from Vietnam. *Gadjah Mada International Journal of Business*, 26(1), 1–22. <https://doi.org/10.22146/gamaijb.71040>
- Pollari, I. (2016). The rise of FinTech opportunities and challenges. *Jassa — The Finsia Journal of Applied Finance*, 3, 15–21. <https://search.informit.com.au/documentSummary;dn=419743387759068;res=IELAPA>
- Puschmann, T. (2017). FinTech. *Business & Information Systems Engineering*, 59(1), 69–76. <https://doi.org/10.1007/s12599-017-0464-6>
- Sheng, T. (2021). The effect of FinTech on banks' credit provision to SMEs: Evidence from China. *Finance Research Letters*, 39(3), Article 101558. <https://doi.org/10.1016/j.frl.2020.101558>
- Thakor, A. V. (2020). FinTech and banking: What do we know? *Journal of Financial Intermediation*, 41, Article 100833. <https://doi.org/10.1016/j.jfi.2019.100833>
- Tiyan, L., Kurniawan, M., Asriani, A., & Syarif, H. (2021). Analisis SWOT financial technology (FinTech) perbankan Syariah dalam optimalisasi penyaluran pembiayaan dan kualitas pelayanan bank Syariah [SWOT analysis of Islamic banking financial technology (FinTech) in optimizing financing distribution and service quality of Islamic banks]. *Al-Mashrof: Islamic Banking and Finance*, 2(1), 56–75. <https://doi.org/10.24042/al-mashrof.v2i1.8799>
- Vives, X. (2019). Digital disruption in banking. *Annual Review of Financial Economics*, 11(1), 243–272. <https://doi.org/10.1146/annurev-financial-100719-120854>

CONFERENCE BOOK REVIEW: “CORPORATE GOVERNANCE: SCHOLARLY RESEARCH AND PRACTICE”

by

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Corporate governance today is undergoing a profound metamorphosis, driven by unprecedented technological advancements, intensifying sustainability imperatives, and the reconfiguration of institutional boundaries. The traditional paradigms — anchored in hierarchical control, agency theory, and shareholder value maximization — are proving insufficient to address the increasing complexity and pluralism of contemporary organizational environments. In their place, emergent governance models are privileging resilience, inclusivity, and ethical orientation.

The twenty-three contributions assembled in the proceedings titled *Corporate Governance: Scholarly Research and Practice* form a coherent and multidimensional exploration of these transitions. Together, they reflect the ongoing redefinition of governance not merely as a structural or procedural domain but as a dynamic, context-sensitive capability essential for long-term organizational legitimacy and societal value creation.

A central thread running through several contributions is the transformative impact of artificial intelligence (AI) and digital infrastructures on the foundational logic of corporate governance. Gotti et al. (2025), for instance, trace the trajectory of machine learning applications in auditing, offering a comprehensive literature review that reveals both the promise of enhanced anomaly detection and the epistemic tensions surrounding algorithmic opacity and the diminishing role of human judgment.

More broadly, the digital turn provokes fundamental questions regarding governance choices themselves. Akpan (2025) benchmarks AI-powered financial forecasting models that significantly improve predictive accuracy, positioning them as essential instruments for strategic decision-making and risk mitigation. Crucially, the study underscores that technical precision must be subordinated to governance systems capable of safeguarding transparency, interpretability, and ethical compliance. The theme of transparency is also central in Nakajima's (2025) articulation of the “generative AI governance paradox”, which captures the strategic dilemma facing multinational corporations as they attempt to reconcile innovation-driven digital adoption with the imperatives of accountability and oversight. Taken together, these contributions construct a vision of governance that is no longer separable

from its algorithmic infrastructure — digital systems that demand scrutiny not only in terms of efficiency, but equally in relation to fairness, reliability, and institutional coherence.

The overarching challenge presented by these studies lies in understanding how digital infrastructures can be leveraged to enhance governance capacities — enabling both public and private organizations to open their decision-making systems, improve external accountability, and elevate the substantive quality of internal deliberation and strategic control (see, among others, Caputo et al., 2021; Mattei et al., 2024; Manginte, 2024).

A second major axis of inquiry concerns the expanding and multidimensional role of sustainability and corporate social responsibility (CSR) within corporate governance systems — dimensions that are no longer peripheral, but increasingly endogenous to the firm's strategic and operational core. Indeed, several contributions converge on the recognition that sustainability can no longer be treated as an exogenous constraint or reputational add-on; rather, it constitutes an intrinsic driver of organizational performance, resilience, and legitimacy. As such, CSR is reframed not merely as a response to external stakeholder pressures, but as a governance imperative that reshapes internal processes, value creation logic, and corporate purpose itself. Carabelli (2025), for example, provides a rigorous systematic review of environmental, social, and governance (ESG) literature within the agri-food sector, offering evidence of a cautiously optimistic correlation between sustainability initiatives and firm profitability. Capuano (2025) examines climate-oriented financial initiatives within the banking sector, arguing that the quality of corporate governance functions as a critical mediating variable in determining the effectiveness of green finance instruments. Similarly, Rabboua et al. (2025) investigate national certification schemes in the Gulf region — most notably the In-Country Value Certification — as hybrid governance tools capable of embedding sustainability imperatives directly into corporate strategy. Sigurjonsson and Wendt (2025) offer a sector-specific application from the Icelandic food industry, illustrating how sustainability practices can yield tangible gains in operational efficiency and strategic effectiveness. Several contributions adopt a more explicit institutional lens, emphasizing the embeddedness of CSR in national regulatory and cultural contexts. Toudas et al. (2025), for instance, undertake a comparative analysis of CSR implementation across Western and BRICS (Brazil, Russia, India, China, South Africa, Egypt, Ethiopia, Indonesia, Iran, and the United Arab Emirates) economies, demonstrating how divergent institutional logics, legal architectures, and cultural norms shape the translation of CSR principles into practice. In a complementary and culturally distinct perspective, Chafai (2025) draws upon Islamic virtue ethics to propose a relational, trust-based model of moral economy, offering a normative counterpoint to dominant Western ESG discourses and emphasizing community-based accountability mechanisms. A subset of studies focuses on the “social” pillar of ESG, particularly in relation to human development and inclusion. Mbama and Mfelam (2025) analyze the governance dynamics of informal small and medium-sized enterprises (SMEs) in Cameroon, revealing how context-sensitive tax formalization can function as a catalyst for inclusive economic growth and social empowerment. This perspective is expanded by Xanthopoulou, Patitsa, et al. (2025) and Xanthopoulou, Vytas, et al. (2025), whose studies on gendered entrepreneurial intentions and workplace stress in the public sector highlight the significance of demographic and psychosocial variables in shaping institutional trust, governance adaptability, and performance. In addition, Alijani et al. (2025) empirically investigate the effects of board diversity, revealing nuanced performance outcomes that depend on organizational context and governance culture.

Collectively, these contributions underscore that CSR must no longer be conceived as a reputational appendage; rather, it constitutes a strategic and cultural core of governance systems — one that must be integrative, reflexive, and deeply embedded in the ethical, institutional, and human fabric of the organizations it seeks to guide (Pizzi et al., 2021).

A third conceptual convergence in the proceedings revolves around the interrelated themes of resilience, adaptivity, and institutional hybridization — concepts that emerge not as static descriptors but as dynamic capacities enabling governance systems to function under conditions of uncertainty, complexity, and change.

Rather than treating these concepts in isolation, the contributions collectively point toward a shift in how governance is conceived and practiced across sectors and institutional contexts. Correia and Águas (2025) lay the theoretical groundwork by proposing a model of adaptive governance informed by systems thinking and emergent learning processes. Their framework serves as a conceptual anchor, highlighting how resilience involves more than structural safeguards — it demands the ability to learn, reconfigure, and evolve.

This perspective finds empirical echoes in studies of both public and private sector governance. Ulrich and Michalke (2025), for instance, explore the aftermath of mergers and acquisitions (M&A) transactions in the German corporate landscape, revealing how hybrid governance models — combining formal contractual mechanisms with informal, relational trust-building — enhance integration and post-merger performance. Similarly, Chasiotou et al. (2025) underscore the importance of structural contingency and adaptive capacity in post-merger governance, extending the discussion across different organizational types. In the context of family firms, Ulrich (2025) addresses the unique dynamics of family-owned enterprises, analyzing how governance structures must accommodate emotional capital, intergenerational continuity, and strategic longevity.

Public sector contributions reinforce these insights by emphasizing institutional responsiveness and anticipatory capacities. Ippolito et al. (2025), through their public value framework, reimagine healthcare performance evaluation as a balance between institutional accountability and citizen-centered governance — a notion that resonates with broader efforts to reframe value creation in the public domain (as also seen in Santolamazza et al., 2024). Kourdoumpalou and Chytis (2025), meanwhile, highlight fiscal resilience through the lens of tax policy, advocating for more countercyclical instruments such as tax loss carrybacks in times of economic downturn.

What emerges across these studies is a recurring tension between formal rule-based systems and the informal, often tacit practices that enable institutions to adapt. D'Alonzo (2025) captures this tension in the figure of the expert within the Italian negotiated composition process, whose role transcends technical advice to include trust mediation — a liminal position that is both institutional and interpersonal. Lazos et al. (2025) add a transnational dimension to this conversation by examining how intra-group transactions in multinational enterprises are governed at the intersection of organizational infrastructure and regulatory heterogeneity. Their findings highlight how transparency and accountability are shaped not just by formal rules but also by how those rules are navigated, interpreted, and implemented across contexts.

Taken together, these contributions suggest that resilience in governance should not be equated with rigidity or redundancy. Instead, it hinges on institutional plasticity, the capacity to combine stability with flexibility; cognitive diversity, enabling the inclusion of multiple perspectives and forms of expertise; and procedural legitimacy, ensuring that adaptation processes remain accountable and inclusive.

The book thus advances an understanding of governance as a living system — continuously evolving through negotiation, learning, and structural experimentation.

The book is anchored by a series of foundational studies that articulate broader conceptual developments in corporate governance theory. Pazarskis and Kostyuk (2025) offer a forward-looking agenda that challenges the sufficiency of classical agency models, calling instead for an expanded paradigm attentive to stakeholder plurality, ethical co-creation, and institutional interdependence.

All the contributions, while diverse in focus, share a unifying intellectual ambition: to reframe corporate governance not as a technical mechanism of control, but as a complex, multi-level system of value negotiation and institutional co-evolution. In synthesizing these perspectives, this book contributes to a redefinition of corporate governance as an evolving institutional infrastructure — one that must be constantly recalibrated in response to shifting technological, social, and ecological conditions. Whether through digital accountability systems, inclusive board practices, hybrid fiscal tools, or culturally contextualized CSR frameworks, the contributions assembled here illuminate governance as a critical site of strategic adaptation and normative deliberation.

Governance, in this emerging view, is not a static apparatus but a living epistemology — an ongoing negotiation between different interests, which often extend beyond the formal boundaries of the organization. It entails navigating interdependencies among actors, balancing normative expectations with operational constraints, and continuously recalibrating institutional arrangements in response to shifting environments. This perspective calls for governance systems that are not only structurally resilient, but also cognitively open, procedurally inclusive, and capable of evolving in tandem with the societies they aim to serve.

REFERENCES

- Akpan, M. (2025). Leveraging artificial intelligence models for financial forecasting: A detailed analysis of predictive performance and benchmarks. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 96–100). Virtus Interpress. <https://doi.org/10.22495/cgsrapp18>
- Alijani, M., Mantovani, G. M., & Merante, S. (2025). On board composition and governance: Does diversity improve the firm's performance? In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 24–28). Virtus Interpress. <https://doi.org/10.22495/cgsrapp3>
- Capuano, P. (2025). Bank-based climate change initiatives, sustainability characteristics, and performance: The role of corporate governance. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 46–50). Virtus Interpress. <https://doi.org/10.22495/cgsrapp8>
- Caputo, A., Pizzi, S., Pellegrini, M. M., & Dabić, M. (2021). Digitalization and business models: Where are we going? A science map of the field. *Journal of Business Research*, 123, 489–501. <https://doi.org/10.1016/j.jbusres.2020.09.053>
- Carabelli, M. (2025). Linking ESG performance and financial returns. A systematic review of the literature evidence: Focus on the agri-food sector. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 38–41). Virtus Interpress. <https://doi.org/10.22495/cgsrapp6>
- Chafai, M. (2025). Sustainable business relationships in informal freight transport: Exploration of Niya virtue. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 35–37). Virtus Interpress. <https://doi.org/10.22495/cgsrapp5>
- Chasiotou, A., Kourtesi, S., Kafestidis, S., & Lazos, G. (2025). Governance and post-merger performance in public, not-for-profit and private entities through international and domestic mergers: A literature review. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 57–60). Virtus Interpress. <https://doi.org/10.22495/cgsrapp10>
- Correia, A., & Água, P. B. (2025). Adaptive governance: Integrating emergent design for agile corporate boards. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 9–14). Virtus Interpress. <https://doi.org/10.22495/cgsrapp1>
- D'Alonzo, C. (2025). The role of the expert within Italian negotiated composition. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 15–23). Virtus Interpress. <https://doi.org/10.22495/cgsrapp2>
- Gotti, G., Morrone, C., Giornetti, A., & Ferri, S. (2025). Decade of studies on machine learning in audit: A structured literature review. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 67–69). Virtus Interpress. <https://doi.org/10.22495/cgsrapp12>

- Ippolito, A., Smarra, M., & Sorrentino, M. (2025). Performance evaluation and public value: An experiment applied to the local health authority. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 104–106). Virtus Interpress. <https://doi.org/10.22495/cgsrapp20>
- Kourdoumpalou, S., & Chytis, E. (2025). Tax loss carrybacks and tax-related cash flow policies in periods of financial recessions. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 101–103). Virtus Interpress. <https://doi.org/10.22495/cgsrapp19>
- Lazos, G., Kafestidis, S., Kourtesi, S., & Pazarskis, M. (2025). The effects of transactions between related parties on the financial statements of multinational corporations, from an accounting and tax point of view. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 73–75). Virtus Interpress. <https://doi.org/10.22495/cgsrapp14>
- Manginte, S. Y. (2024). Fortifying transparency: Enhancing corporate governance through robust internal control mechanisms. *Advances in Management & Financial Reporting*, 2(2), 72–84. <https://doi.org/10.60079/amfr.v2i2.173>
- Mattei, G., Santolamazza, V., & Manzo, M. (2024). Digitalisation and citizen engagement: Comparing participatory budgeting in Rome and Barcelona. In G. Grossi & J. Vakkuri (Eds.), *Handbook of accounting and public governance: Exploring hybridizations* (pp. 162–181). Edward Elgar Publishing. <https://doi.org/10.4337/9781800888456.00020>
- Mbama, P. C., & Mfelam, J. R. (2025). The taxation of the informal sector in the Cameroonian context: What is at stake in the formalization and transparency of informal SMEs? In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 84–90). Virtus Interpress. <https://doi.org/10.22495/cgsrapp16>
- Nakajima, R. (2025). The generative artificial intelligence governance paradox: Driving innovation while challenging global corporate oversight in multinational firms. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 91–95). Virtus Interpress. <https://doi.org/10.22495/cgsrapp17>
- Pazarskis, M., & Kostyuk, A. (2025). Corporate governance: Future avenues and perspectives. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 6–8). Virtus Interpress. <https://doi.org/10.22495/cgsrapp1>
- Pizzi, S., Corbo, L., & Caputo, A. (2021). Fintech and SMEs sustainable business models: Reflections and considerations for a circular economy. *Journal of Cleaner Production*, 281, Article 125217. <https://doi.org/10.1016/j.jclepro.2020.125217>
- Rabboua, M., Diab, R., Alzayani, L., Elkelish, W. W., Al-Ali, A., & Al Mulla, A. (2025). National In-Country Value Certification and corporate sustainability. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 61–66). Virtus Interpress. <https://doi.org/10.22495/cgsrapp11>
- Santolamazza, V., Mattei, G., & Grandis, F. G. (2024). Citizens' role and digitalisation in the participatory budgeting to create public value: The case of Rome. *International Journal of Public Sector Management*. Advance online publication. <https://doi.org/10.1108/IJPSM-05-2023-0165>
- Sigurjonsson, T. O., & Wendt, S. (2025). The role of artificial intelligence in supporting sustainability in the food industry: Insights from Iceland. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 51–56). Virtus Interpress. <https://doi.org/10.22495/cgsrapp9>
- Toudas, K., Nika, P., & Avakian, K.-K. (2025). What differentiates companies that comply from those that follow CSR in the Western World and BRICS? In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 42–45). Virtus Interpress. <https://doi.org/10.22495/cgsrapp7>
- Ulrich, P. (2025). Family governance and its role in sustaining family-owned businesses. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 29–34). Virtus Interpress. <https://doi.org/10.22495/cgsrapp4>
- Ulrich, P., & Michalke, P. (2025). The influence of corporate governance on the success of M&A transactions: An empirical analysis of German companies. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 107–111). Virtus Interpress. <https://doi.org/10.22495/cgsrapp21>
- Xanthopoulou, P. I., Patitsa, C., Sotiropoulou, K., Chalaris, M., & Kalogiannidis, S. (2025). Factors of work-related stress: The impact of work stress on the performance and well-being of public sector employees. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 112–116). Virtus Interpress. <https://doi.org/10.22495/cgsrapp22>
- Xanthopoulou, P. I., Vytas, V., Sahinidis, A. G., & Antoniadis, I. (2025). Gender differences in entrepreneurial intentions: An empirical study of demographic influences. In M. Pazarskis, A. Kostyuk, V. Santolamazza, & P. Capuano (Eds.), *Corporate governance: Scholarly research and practice* (pp. 76–83). Virtus Interpress. <https://doi.org/10.22495/cgsrapp15>

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