# Impact of the COVID-19 pandemic on Financial Reporting via Internet - A Morocco case study

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Abstract— This paper analyzes the impact of COVID-19 on the financial reporting quality of Moroccan companies and whether decision-making technologies have a mitigating effect. The pandemic has caused a distress around the world, with profound economic and social risks. Especially, Moroccan firms have been negatively impacted, the first and most obvious impact from the crisis was their stability and their financial reporting quality which has been lower during the pandemic. Our paper aims to observe the important role of the financial reporting quality which facilitates the efforts made by corporate governance in order to support Moroccan firms in this COVID-19 crisis. Also, we report that financial stability and Moroccan firm's performance are negatively affected by daily new confirmed COVID-19 cases. The paper documents evidence to support the role of financial communication reporting in order to help economic stakeholders and corporate governance to make strategic decision during the pandemic. To that end, this study investigates the time series and examines the role of financial communication reporting during the COVID-19 pandemic and to check whether there are changes in Moroccan firm's efficiency. The results of this study provide useful suggestions to the practice.

Keywords— Financial reporting quality, COVID-19, time series Analysis, Financial Stability, Morocco.

# I. INTRODUCTION

The impact of coronavirus (COVID-19) pandemic is the reason why this period will not leave our memories for decades. The COVID-19 pandemic has caused a distress around the world, with profound economic and social risks (Khan, 2022)(Didier et al., 2021a). Economists have drawn

attention to financial stability and firm's performance as an important factor in every economic development assessment. Companies are facing great difficulties in dealing with the impact of the pandemic and its effects have varied among many economic sectors (Didier et al., 2021b). More specifically, companies of varying sizes that are the mainstay of any economy, were the most affected, given their relatively weak position in times of health crises that turned into an economic crisis, especially their resort to bank financing or commercial loans (Hasanov et al., 2022).

Furthermore, the COVID-19 economic crisis has significantly presented new challenges for companies requiring them to adopt new strategic approaches and choices in the light of financial communication reporting. Thus, understanding the company policies and make informed strategic decisions for economic stakeholders(Gerth et al., 2021). Moroccan SMBs (Small and Medium-Sized Businesses) and SMEs (Small and Medium Enterprises), like the rest of the world, need to revise their existing financial reporting quality to take advantage of the power of decisionmaking technologies, to better connect with the various economic sectors' stakeholders. A great number of Moroccan firms have been negatively impacted, the first and most obvious impact from the crisis was their stability and their financial reporting quality which has been lower during the pandemic (bkam, n.d.). Since good financial reporting quality helps financial economic sectors' stakeholders to make proper

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decisions and helps to improve the efficiency of financial markets. Also, it provides useful insight for policymakers and investors.

The financial communication quality is important to keep the efficiency and stability of Moroccan SMBs and SMEs, because of the national economy actors, such as investors, lenders and regulators who directly rely on financial information from financial reporting to take strategic decisions (Bajkó et al., 2022; Pu et al., 2021). Also, it should be reviewed on a daily, weekly, monthly, quarterly, half-yearly and yearly basis, with the most performance decision-making technologies, as it gives the ability to plan and make it possible for intervening in a timely manner and in the event of any crisis. A series of studies examined the impact of the 2008 financial crisis on the quality of financial information (Cimini, 2015; Eng et al., 2019). Like the 2008 financial crisis, COVID-19 has caused significant disruption to financial information and the global economy.

However, it is still unknown whether the financial reporting quality moderates the impact of COVID-19, which can identify the strengths and weaknesses of the Moroccan company through financial communication indicators. Moreover, it can actively participate in the efforts made by corporate governance in order to support Moroccan SMBs and SMEs. This study addresses the effect of the COVID-19 pandemic on financial reporting quality, it aims to contribute to the ongoing discussion of the pandemic and to discuss the role of corporate governance in the COVID-19 crisis.

In this context, the present study contributes to the growth literature on the economic effects of COVID-19 in general, and the Moroccan SMBs and SMEs-level consequences of the pandemic in particular. We analyze the impact of COVID-19 on financial stability and firms' performance of Moroccan SMBs and SMEs by drawing on data from the World Bank Enterprise Analysis conducted in many countries prior to the COVID-19 outbreak, since Morocco is one of them. More specifically, this study aims to observe the very important role of the financial reporting quality which facilitate the efforts made by corporate governance in order to support Moroccan SMBs and SMEs in this COVID-19 crisis. Also, we report that

financial stability and firms' performance of Moroccan SMBs and SMEs are negatively affected by daily new confirmed COVID-19 cases. The study documents evidence to support the important role of financial communication reporting for helping economic stakeholders and corporate governance to make strategic decision during the pandemic. To that end, this study investigates the time series forecasting and regression econometric models examines the role of financial communication reporting during the COVID-19 pandemic and to check whether there are changes in Moroccan SMBs and SMEs efficiency. The results of this study provide useful suggestions to the practice.

The remainder of this paper is structured as follows. Section 2 reviews relevant related works and develops hypotheses. Section 3 describes the methodology and data. Section 4 presents our results and Section 5 concludes.

#### II. LITERATURE AND HYPOTHESES

Previous studies of public health crises have indicated that many pandemics such as MERS, Ebola, and Zika virus have damaged the economic growth and caused disruptions in many activities (Pagnottoni et al., 2021) (Peixoto et al., 2021) (Cimini, 2015). While studies of the economic growth to those epidemics may provide some insightful information, given the special nature of the current COVID-19 pandemic, these past experiences may have little compared to the unique challenges of the current pandemic (Barro et al., 2020).

Studies motivated by the huge impacts of COVID-19 have primarily focused on the financial reporting quality which becomes less value-relevant during the pandemic. In (Baek et al., 2020), the authors analyze the effects of COVID-19 on US stock market volatility at the industry level. The natural gas and oil, hotel, food service and lodging sectors have showed large increases in risk. They have used machine learning models to identify influential economic indicators. In (Chiah & Zhong, 2020), the authors examine the impact of COVID-19 on trading volume in stock markets around the world. They have shown that the increase in the volume of transactions is related to the national culture and the institutional environment of each country. Also, the intensity of trade is also associated with the gambling opportunities of many

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countries. State-level data was used by the authors (Pham et al., 2021) to assess the relationship between COVID-19 outbreaks and stock returns, they have been found that daily increases in the number of infected cases, hospitalized cases, and deaths are negatively associated with the next day's stock market returns of companies headquartered in the same state. The association is less pronounced between states with high levels of medical resources and states likely to have federal government support.

The literature on the 2008 financial crisis shows that crises can lead to higher or lower quality of financial information. The same is true during the COVID-19 pandemic (Hsu & Liao, 2021). If companies exploit the higher information, they are more likely to manage their profits to influence their stakeholders and investors in order to mitigate the negative effect of COVID-19. Thus, we work up the following hypotheses:

Hypothesis 1: The quality of financial reporting is lower/higher during the COVID-19 pandemic.

Hypothesis 2: The decrease in cases of COVID-19 has a mitigating effect on financial reporting quality during the pandemic.

#### III. METHODOLOGY AND DATA DESCRIPTION

The deployed methodology is effectively used to analyze time series of Morocco's health situation with financial reporting quality. They investigated the time series and examines the role of financial communication reporting during the COVID-19 pandemic and to check how there are changes in Moroccan firms' efficiency. This could help decision makers to design strategies and policies to manage its spread.

In this study, we focus on Morocco because it is one of the emerging economies in Africa. Furthermore, Morocco is known as a developing regional economic power and our research will add to current literature.

We have used the World Bank Enterprise Surveys and COVID-19 Impact Follow-up Surveys as our data sources. They are standardized and representative surveys at the national and company level on a sample of non-financial IJOA ©2022

companies in the private sector of a country. The methodology used is a random sampling methodology and is followed in all these surveys using a master questionnaire. The classes used to construct a representative sample in each country are economic region, industry and firm size. Since these surveys use a global approach based on a common questionnaire, the results are fully comparable by period which facilitates research, analysis, including comparisons. Another important feature is that they collect information on the business environment in addition to a wide range of business characteristics and financial results. The second data source is collected by many sources including the world health organization, worldometers and from data delivered by the Moroccan ministry of health. The dataset is maintained in a CSV format. The data have cleaned and normalized data and made it easy for further processing and analysis, arranging dates and consolidating several files into normalized time series.

# IV. RESULTS

The descriptive statistics, reported in Figure 1, daily cases of COVID-19 are likely stabilized at the beginning of March 2020 with a small margin due to the strict measures taken by the Moroccan authorities. In late July, as authorities began to ease these measures, cases began to rise exponentially this time due to increased population movement and travel during the summer. Faced with the exponential growth of cases and deaths, governments have taken emergency measures to reduce the spread of the disease. By flattening the epidemic curve, it was expected to reduce the risk of breaking the capacity of health care systems. As a result, these emergency measures have reduced economic flow through all kinds of businesses. The quarantine has also led to an increase in the unemployment rate and the closure of businesses, making social inequalities more evident.



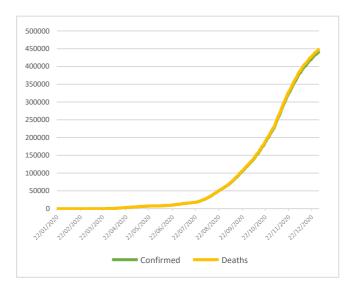


Figure 1: Total COVID-19 Cases in Morocco over time.

Figure 2 shows an important measure of the impact of the pandemic on companies that exited the market during the economic crisis. The figure shows estimates about businesses that closed altogether. It shows the share of Moroccan companies whose closure has been confirmed since the declaration of the pandemic in Morocco. Thus, the pandemic shock has been closed permanently firms of different sizes as shown in figure 2.

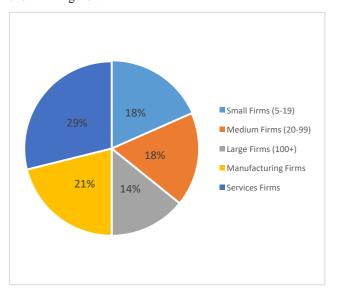


Figure 2: Percent of firms confirmed permanently closed.

As economies around the world were increasingly impacted by the COVID-19 pandemic, Moroccan companies experienced high financial distress. Figure 3 shows the share of Moroccan companies delaying payments to owners, suppliers or tax authorities for more than a week due to the

covid-19 pandemic. This statistic gives an idea of the impact of the liquidity or solvency crisis induced by covid-19.

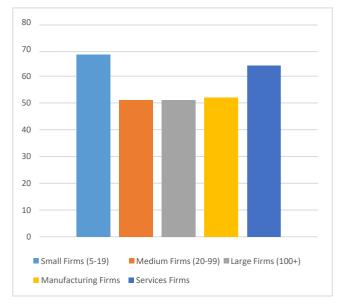


Figure 3: Share of firms delaying payments for more than one week due to COVID-19 (%).

# V. CONCLUSION

Given the seriousness of the situation of recording thousands of daily cases of COVID-19 in Morocco, our paper adds to ongoing contributions on COVID-19 and shows important evidence which a larger board can help mitigate the negative impact of COVID-19 on the financial reporting quality. A good financial information quality can help financial market investors or stakeholders to make the right decisions and help improve the efficiency of financial markets during the pandemic, our results provide useful information for policy makers and investors. This work documents evidence to support the important role of financial communication reporting that can help economic stakeholders and corporate governance to make strategic decision in the pandemic. It investigates the time series and examines the role of financial communication reporting of Moroccan firms' efficiency during the COVID-19 pandemic.

#### REFERENCES

Baek, S., Mohanty, S. K., & Glambosky, M. (2020). COVID-19 and stock market volatility: An industry level analysis. *Finance Research Letters*, *37*, 101748. https://doi.org/10.1016/j.frl.2020.101748

Bajkó, N., Fülöp, Z., & Pércsi, K. N. (2022). Changes in the Innovation- and Marketing-Habits of Family SMEs in

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Copyright © 2022 by International Journal on Optimization and Applications



- the Foodstuffs Industry, Caused by the Coronavirus Pandemic in Hungary. *Sustainability*, *14*(5), 2914. https://doi.org/10.3390/su14052914
- Barro, R., Ursúa, J., & Weng, J. (2020). The Coronavirus and the Great Influenza Pandemic: Lessons from the "Spanish Flu" for the Coronavirus's Potential Effects on Mortality and Economic Activity. https://doi.org/10.3386/w26866
- bkam. (n.d.). Rapport annuel 2020.
- Chiah, M., & Zhong, A. (2020). Trading from home: The impact of COVID-19 on trading volume around the world. *Finance Research Letters*, *37*, 101784. https://doi.org/10.1016/j.frl.2020.101784
- Cimini, R. (2015). How has the financial crisis affected earnings management? A European study. *Applied Economics*, 47(3), 302–317. https://doi.org/10.1080/00036846.2014.969828
- Didier, T., Huneeus, F., Larrain, M., & Schmukler, S. L. (2021a). Financing firms in hibernation during the COVID-19 pandemic. *Journal of Financial Stability*, 53, 100837. https://doi.org/10.1016/j.jfs.2020.100837
- Didier, T., Huneeus, F., Larrain, M., & Schmukler, S. L. (2021b). Financing firms in hibernation during the COVID-19 pandemic. *Journal of Financial Stability*, 53, 100837. https://doi.org/10.1016/j.jfs.2020.100837
- Eng, L. L., Fang, H., Tian, X., Yu, T. R., & Zhang, H. (2019). Financial crisis and real earnings management in family firms: A comparison between China and the United States. *Journal of International Financial Markets, Institutions and Money*, 59, 184–201. https://doi.org/10.1016/j.intfin.2018.12.008
- Gerth, F., Ramiah, V., Toufaily, E., & Muschert, G. (2021). Assessing the effectiveness of Covid-19 financial product innovations in supporting financially distressed firms and households in the UAE. *Journal of Financial Services Marketing*, 26(4), 215–225. https://doi.org/10.1057/s41264-021-00098-w
- Hasanov, F. J., Javid, M., & Joutz, F. L. (2022). Saudi Non-Oil Exports before and after COVID-19: Historical Impacts of Determinants and Scenario Analysis. Sustainability, 14(4), 2379. https://doi.org/10.3390/su14042379
- Hsu, Y.-L., & Liao, L.-K. (Connie). (2021). Corporate governance and stock performance: The case of COVID-19 crisis. *Journal of Accounting and Public Policy*, 106920. https://doi.org/10.1016/j.jaccpubpol.2021.106920
- Khan, S. U. (2022). Financing constraints and firm-level responses to the COVID-19 pandemic: International evidence. *Research in International Business and Finance*, 59, 101545. https://doi.org/10.1016/j.ribaf.2021.101545
- Pagnottoni, P., Spelta, A., Pecora, N., Flori, A., & Pammolli, F. (2021). Financial earthquakes: SARS-CoV-2 news shock propagation in stock and sovereign bond markets. *Physica A: Statistical Mechanics and Its Applications*, 582, 126240. https://doi.org/10.1016/j.physa.2021.126240
- Peixoto, H. M., Gallo, L. G., Nascimento, G. L., & de Oliveira, M. R. F. (2021). Economic impact of Zika virus infection and associated conditions. In *Zika Virus Biology, Transmission, and Pathology* (pp. 63–74). IJOA ©2022

- Elsevier. https://doi.org/10.1016/B978-0-12-820268-5.00006-7
- Pham, A. V., Adrian, C., Garg, M., Phang, S.-Y., & Truong, C. (2021). State-level COVID-19 outbreak and stock returns. *Finance Research Letters*, 43, 102002. https://doi.org/10.1016/j.frl.2021.102002
- Pu, G., Qamruzzaman, Md., Mehta, A. M., Naqvi, F. N., & Karim, S. (2021). Innovative Finance, Technological Adaptation and SMEs Sustainability: The Mediating Role of Government Support during COVID-19 Pandemic. *Sustainability*, *13*(16), 9218. https://doi.org/10.3390/su13169218