



The Influence of International Accounting Standards on the Economic Development Aftermath of COVID-19

Aymen Raheem Abdulaali Almayyahi^a, Mustafa Abdullah Mohammed^b, Alhamzah Alnoor^c, Sammar Abbas^d and Zeeshan Zaib Khattak^e,
^{a,b}Southern Technical University, Management Technical College, Iraq;
^cSchool of Management, Universiti Sains Malaysia, Pulau Pinang, Malaysia,
Southern Technical University, Management Technical College, Iraq;
^{d,e}Institute of Business Studies, Kohat University of Science and Technology, Pakistan.

This study was carried out to determine the effects of the Covid-19 pandemic on International Financial Reporting Standards (IFRS) policies and the extent of its impact on sustainable development. During the Covid-19 pandemic there have been changes in these policies to adjust the financial risk caused by the pandemic. Similarly, the International Accounting Standards was studied to evaluate the effects on reporting of Expected Credit Loss Assessment. The International Accounting Standards revealed the impact of contract revenue reporting. The International Accounting Standards were investigated to determine the effect on reporting and disclosure of Fair Value Measurements (FVM). Similarly, it was found that the reporting mechanism of equity and debts has also been changed to adjust to the situation caused by Covid-19. To meet the objectives of the study, online qualitative data was accessed and used. To study the various changes in financial reporting standards caused by Covid-19 to mitigate the risk, online data was randomly selected and evaluated as discussed in the methodology section.

Keywords: *Economic Development, Covid-19, International Standards*

1. Introduction

International Financial Reporting Standards (IFRS) serve as the key to ensure the transparency of financial reporting. These are rules that guide companies to present their financial results following the International Accounting Standards (Laronde et al., 2020) These reporting standards are determinantal to the development of sound financial reporting of companies' economic activities. These reporting standards are subject to change, keeping in view the requirements of an emergent situation such as the Covid-19 pandemic (Devi et al., 2020; Alnoor, 2020). The emergence of the Covid-19 pandemic has caused changes in these financial reporting standards and procedures across many industrial sectors. During the Covid-19 pandemic, virtually operating companies have been the most affected in reporting their economic activities out of many industries accross different sectors. The Covid-19 pandemic has raised concerns about the financial reporting standards and accordingly, the ethical issues for the clarity and transparency of financial information reporting. Though the IFRS facilitate reporting of financial results, because of Covid-19 there has been a need to make changes in reporting mechanisms to adjust to the various IFRS requirements (Fath, 2015). This is because Covid-19 has also posed challenges for companies in terms of accounting and reporting transparency (Espinosa et al., 2020). For example, the hospitality and tourism industry and companies doing e-businesses have suffered mainly due to the current pandemic situation, and accordingly, their financial reporting has weakened. During the pandemic, companies face difficulties in reporting their economic activities because of changing local and international financial reporting standards to adjust to the situation caused by Covid-19 (Alnoor et al., 2020; Demirguc-Kunt et al.,2020).

In the modern era, companies are connected through an integrated financial system. Closure of businesses across the globe due to the pandemic has badly affected the financial data sharing and has affected the entire integrated financial reporting system. Similarly, reduced coordination with auditors and financial consultants because of social distancing has also questioned the reliability and authenticity of financial reporting (Devi et al., 2020). The Covid-19 pandemic has caused the adoption of the financial reporting standards accordingly while reporting the financial results. It is understood that the Covid-19 is going to affect the IFRS over a more extended period and hence the need to bring attention to ensure transparency and accountability of financial results of business operations (Anand & Sen, 2000)

The International Financial Reporting Standards (IFRS) guide companies to prepare and report their financial outcomes appropriately. These standards help companies design and write their financial products according to the situation that emerged due to Covid-19. This study will evaluate the effects of Covid-19 on the IFRS and reveal newly adopted ways of reducing the firms' constraints in financial reporting systems (Demirguc-Kunt et al., 2020). Drawing on relevant theories, this study will consider various mechanisms used by companies while reporting their financial results.

Additionally, the study will also consider changes in the IFRS due to the Covid-19 pandemic (Khullar et al., 2020). It is expected that this study will help to develop a potential solution to the problems faced by companies due to financial reporting constraints because of Covid-19. There have been significant changes in the IFRS during the pandemic, and this has made it mandatory to investigate the changes in the IFRS and how these have affected financial reporting (Devi et al., 2020). The effects on financial reporting have required companies to develop strategised models which could better present the economic outcomes. Companies are finding it challenging to adjust and merge with new reporting standards, and hence the control and governance of financial resources has become difficult (Espinosa et al., 2020). To meet this difficulty, IFRS policies provide guidelines for adjustment in financial reporting due to the change in conditions because of Covid-19 (Khullar et al., 2020).

2. Literature Review

This section will elaborate on various financial reporting theories and discuss the IFRS system and its challenges. This section will also highlight the drawback of the IFRS regarding addressing challenges of Covid-19. According to Espinosa et al., (2020), there is a need to evaluate the longer-term effects of Covid-19 on the current IFRS and address changes required in the IFRS to cope with Covid-19 for financial efficiency reporting.

There has always been development in the IFRS to reduce the uncertainty in reporting financial outcomes. Due to market uncertainties, there are still inevitable changes in the IFRS to develop such reporting standards that are reliable and acceptable across financial markets. Due to the unprecedented nature of financial information and market situations, companies always face financial reporting problems (Espinosa et al., 2020). During recent times, Covid-19 has resulted in a lockdown and a squeezing of businesses activities, resulting in difficulty in financial reporting. The requirement of having an automated reporting system further caused uncertainties in reporting. The IFRS help companies to avoid tensions in financial reporting by providing policy guidelines to adjust to the conditions (Fath, 2015).

The IFRS-1 is aimed to facilitate meaningful use of financial reporting following the disclosure requirement policy of IAS: 1 122 of IFRS. The IFRS policy changes on uncertainties judgments rely on IAS 1:125. Based on the current scenario analysis, the IFRS helps to judge financial assumptions regarding assets and liabilities for the present and next fiscal year. Accordingly, the current financial reporting systems can be modified to reasonable IFRS amendments through government support (Espinosa et al., 2020). This extended period of reporting financial results of more than a year depends on the companies' available financial information and agreement to this arrangement. The current IFRS reporting system considers the duration of lockdowns in reporting financial results to avoid uncertainties on the entities' judgments (Fath, 2015).



IFRS-2 deals with share-based payments and related effects after the end of the reporting period. This reporting standard guides the financial reporting of business entities concerning period end share-based payment transactions. It also shows on reporting of share options in financial statements. (Anand & Sen, 2000). IFRS-2 also deals with reporting of the company's transactions with employees and related party transactions.

Additionally, IFRS-2 reflects on the annual reports of the share-based payment reporting. This standard also helps to reflect the impact of share-based payment transactions in financial statements. The financial information must also reflect the expense incurred in the share-based payment transaction.

It is argued that the Covid-19 pandemic has also affected the reporting of share-based payment to shareholders. IFRS-2 has implemented the procedure of reporting the share-based payment transaction of an extended period (Abdulaali et al., 2019; Demirguc-Kunt et al., 2020). Through the right of disclosure, all shareholders can access the reports to address their concerns. Regarding the uncertainties on share-based payment transactions, IFRS-2 defines the ways to report these uncertainties (Fath, 2015; Al-Abrow & Alnoor, 2017). The Covid-19 pandemic caused an adjustment in IFRS-2 because there is a need to back-date adjustments of the transactions that happen once the financial reporting is done. Accordingly, these transactions must be included in future forecasts; however, no such transaction will be included for future estimates if there is an annuity. The new IFRS-2 provides a space to accept and adjust those share-based payment transactions that happen within a short period (Chang et al., 2020).

Table 1. National income in Iraq for the period (2003-2019)

Years	National income	Per capita national income
2003	25,728748.6	976793.8
2004	46,923315.7	1728935.7
2005	65,798566.8	2353058.2
2006	85,431538.8	2926339.0
2007	96,585460.0	3209139.1
2008	97,823576.0	3067050.5
2009	98,126744.3	3099000.2
2010	146,453500.0	4507648.5
2011	192,237100.0	5766305.7
2012	227,221900.0	6642361.4
2013	243,518700.0	6938689.5
2014	230,310100.0	6396693.9
2015	234,451800.0	6496791.8
2016	241,657690.0	6396693.9
2017	244,481901.0	6495633.9
2018	250,911600.0	6760693.9
2019	251,781090.0	6869093.9

2.1. Relationship Between IFRS and Economic Development

The IFRS-13 is mainly concerned with the financial reporting of companies' value under the free valuation system. Free valuation is a technique used to make available financial information to the stockholders using Fair Value Metrics (FVM) in companies' financial reports. This standard considers valuation as sensitive information using several assumptions. The fundamental condition for valuation is that these are known to market values and are considered corresponding values under the IFRS-13 (Hadi et al., 2019; Rababah et al., 2020). The values are reported at the end of the last reporting year. The outbreak of Covid-19 has affected the financial reporting mechanism under the IFRS-13 (Khullar, et al., 2020).

Amendments have been made in the IFRS-13 to reflect the effects of Covid-19 on financial reporting for the year 2020. The financial markets allow frequent reviewing of reporting schema due to the impacts of Covid-19 on the market. These reviews are permitted to ensure that entity valuation accounts for Covid-19 effects and is truly reflected in the financial reports.

Now, the IFRS-13 requires the consideration of the unobservable factors that can affect entity value under Covid-19. FVM also considers deferred future cash flows for assets valuation.

Covid-19 has required IFRS-9 changes in reporting the credit loss assessment and other related anticipated financial changes. The credibility of financial reporting of future forecasts is established by making them public to the stakeholders. Under the IFRS-9, future estimates of economic outcomes are made based on past financial data. The IFRS-9 guides for evaluation of future reports by considering the forecasted financial assessments (Jabbar et al., 2020; Laronde et al., 2020). It is challenging to make ECLs assessments through a profit and loss statement. Because this statement is prepared based on available past financial data and does not involve any forecast. Under the IFRS-19, it is expected that companies should provide sufficient data on the truthfulness of reported information until the reporting date (Schaltegger, 2011; Eneizan et al., 2019).

Due to Covid-19, there has been an increase in credit borrowing, and accordingly, borrowers must be provided with full disclosure of credit. Under the Current Expected Credit Loss assessment, only the remaining life of credit instrument with significant value is considered. The IFRS-9 facilitates the reporting of short-term receivables which result because of delayed transactions and credit settlement process. The IFRS-9 also ensures that both long- and short-term loan assessments are legally made while assessing expected credit losses. The recent changes in IFRS-19 ask for proper guidance to both lenders and borrowers for ECLs. Previously, it was only for borrowers.

Additionally, there is a requirement to simultaneously considers the IFRS-7 along with the IFRS-9 while reporting the ECLs. The recent reporting mechanism discloses the total default loans and payable for assessing short term ECLs (Alnoor et al., 2018; Tejomurti et al., 2020).

The IFRS-15 defines the reporting of revenue generated through contracts with clients. In reporting such income, the IFRS-15 takes into account various assumptions relevant to contract arrangement. There must be input from the management while registering the contract revenue. While reporting revenue, the IFRS-15 considers only the revenue generated through service provision of goods delivered to the clients. Before Covid-19, the IFRS-15 accounted for expected return through increased demand (Ayres, 2008). Now, the IFRS-15 has made financial reporting more effective by considering the penalties for delayed goods delivery, resulting in a decrease in price or price deduction by the client.

Table 2. The Influence of International Accounting Standards on the Economic Development

EBIT Margin (TTM)	14.32%	38.95%	-63.22%	23.19%	-38.22%
EBITDA Margin (TTM)	1.26%	6.37%	-80.17%	2.89%	-56.23%
Net Income Margin (TTM)	4.56%	28.04%	-83.75%	7.51%	-39.31%
Levered FCF Margin (TTM)	0.82%	-4.48%	NM	1.94%	-57.86%
Return on Common Equity (TTM)	-1.62%	3.52%	NM	3.39%	NM
Return on Total Capital (TTM)	3.17%	-10.60%	NM	6.67%	-52.51%
Return on Total Assets (TTM)	1.75%	2.67%	-34.60%	4.08%	-57.12%
CAPEX / Sales (TTM)	1.27%	-3.30%	NM	2.97%	-57.21%
Asset Turnover Ratio (TTM)	4.99%	13.88%	-64.05%	3.87%	28.82%
Cash from Operations (TTM)	1.55%	34.00%	351.36%	1.57	-1.36%
Net Income Per Employee (TTM)	14.11B	249.93M	5543.81%	25.63B	-44.97%

While reporting the contract revenue, there is the provision for modifying the rights to the contract. The contract granting price allowances are registered under the resolution of variability that belongs to the client. However, after the outbreak of Covid-19, there has been a change to report the decrease in contract price as obligations. Accordingly, the IFRS-15 asks for writing such duties against contract revenue to avoid unnecessary concern about the financial reports (Mota et al., 2015). The discounts and reduced volume caused by Covid-19 can now be included in the reporting of short-term contract outcomes.

Table 3. GDP in Iraq for the period (2003- 2019)

Year	Per capita GDP	Gross domestic product
2003	1123226	29,585788.6
2004	1961581	53,235358.7
2005	2629674	73,533598.6
2006	3274233	95,587954.8
2007	3582698	111,455813.4
2008	4959135	157,026061.6
2009	4125922	130,643200.4
2010	4988136	162,064565.5
2011	6518900	217,327107.4
2012	7363998	251,907661.7
2013	7619025	267,395614.0
2014	7190774	258,900600.0
2015	7190774	194,680,971.0
2016	7186455	196,924,141
2017	7267889	225,722,375
2018	7577822	251,064,479
2019	796655	259,077,467

2.2. Reporting on Capital

Intellectual capital refers to human capital which can benefit a company in some business deals. Though intellectual capital is a significant factor for market competitiveness and business growth, it is still not necessary to be reported in a company's financial reports because it is challenging to measure employees' skills quantitatively (Alhamdi et al., 2019; Seiwald & Polzer, 2020). There can be subjective measures of human capital, but they do not serve the purpose of financial reporting. Companies invest in human capital by providing training and professional development opportunities. However, it is challenging to quantify employees' skills and professional development. For example, it is difficult to measure the amount of cash flow generated through skills (Abdullah et al., 2021; Mota et al., 2015). Difficulties associated with cash flow measurement make it hard to estimate the actual monetary value of human capital.

2.3. Effects of Covid-19 on Performance

It is usual practice to report income from shares in income statements at the end of the financial year. The IFRS have now asked for reporting share income for less than a year. In this regard, the IFRS have been evaluated under the Trailing Twelve Months (TTM) model (Chang et al., 2020). The current IFRS reporting policy of share income is based on the Most Recent Quarter (MSQ), which considers current Covid-19 conditions. Financial reporting has been challenged by the recent Covid-19 situation because IFRS does not promise sound financial reporting guidelines (Tejomurti et al., 2020).

Similarly, companies are finding it difficult regarding long term financial reports due to delayed messages of new ventures in small markets. The IFRS changes also require tax applications changes for individual shareholders and companies (Seiwald & Polzer, 2020). The tax must not harm the IFRS reporting mechanism. Similarly, the reporting period for shareholders' income has been minimised to ensure sound financial analysis (Abbas et al., 2021; Mota et al., 2015). This is due to the increased cost of financial reports preparation. Companies need to report under-valued shares and buy-back shares following the IFRS changes (Hadi et al., 2018; Broadstock et al., 2020). In this regard, the IFRS policies guidelines have changed to reflect possible loss prediction on a short-term basis that align with market developments.

Table 4. The ratio of investment to GDP %

Years	2004	2005	2007	2009	2011	2013	2015	2017	2019
The ratio	7.5	19.1	36.0	12.2	15.3	26.6	22.8	21.2	24.6

2.4. Reports

The IFRS-8 requires reporting of all operating departments of a company. The financial events of all departments must be included in a company financial report. Consolidated financial statements provide enough information to investors for economic analysis and performance evaluation. Management of a company can make assumptions about departmental performance through close monitoring. The IFRS-8 has been changed to facilitate the government to report on departments' financial affairs (Ayres, 2008). Covid-18 has equally affected departmental reporting. Accordingly, the IFRS-8 amendments have been made to ease the financial reporting procedure of departments. Now it requires preparation of short term reports of departments instead of long-term reports (Al-Abrow et al., 2019; Broadstock et al., 2020).

3. Methods

Following the nature of the study, qualitative techniques have been used to collect and analyse data. Data was acquired from online sources of the cybernetic system containing enough data on the IFRS. The cybernetic data sources provide more explanation on the IFRS adjustments amidst Covid-19. We used critical words for relevant data search, including financial reporting, IFRS, and the impact of Covid-19 (Schneider, 2014). Our data search resulted in 55 sources for IFRS related information, whereas 31 sources were duplicated and had outdated information (Chang et al., 2020).

The sources included information from many countries using the IFRS in their respective financial reporting systems. We also searched for additional sources files for the countries that do not follow the IFRS. Finally, 24 source files were used to generate the required data. We repeatedly tested the data after filtering the duplicated files (Spangenberg, 2005). After excluding the irrelevant data, three data source files were finally used to generate the required qualitative data. The study design helped to obtain the essential outcomes of the study.

We mainly relied on Google Finance and Yahoo Finance as two primary data sources. The data filtration process resulted in the final data set that laid the foundation for assessing the study's essential outcomes (Sharpe et al., 2020). The information collection was done through six datasets that helped to draw final qualitative results. We relied on three selected data files to increase data validity, and we used random sampling that helped remove any confounding effect. Random sample ensured data validity, and there were no errors left to affect study outcomes (Tejomurti et al., 2020).

3.1. Sample size

Due to the independent selection of files, the sampling method was fundamental to this study. Our sampling strategy of random sampling helped select the final three dataset files from the online storage of dataset files. Random sampling allowed for data validity and the realisation

of good outcomes. The sample selection was universal. According to Espinosa et al. (2020), the IFRS are an important determinant of international financial reporting.

Our search for effects of Covid-19 on the IFRS resulted in 26 dataset files. Out of 26, ten files revealed adjustment in the IFRS to realise the conditions caused by the Covid-19 pandemic. Twenty-four files contained information showing that Covid-19 triggered changes in the IFRS. We sampled ten files to reflect that the IFRS are conducive to international financial reporting. These ten files showed policy measures to address the challenges of financial reporting caused by the Covid-19 pandemic situation. Consequently, we used data from random sampling to determine the IFRS adjustments.

In the case of this study, random sampling did not ask for detailed information on the IFRS and the effects of Covid-19 to search for specific data files. Instead, it involved a simple method of dataset files selection on the IFRS results of Covid-19 (Spangenberg, 2005). Random sampling allowed to draw upon 55 files out of many population files in the cybernetic data system.

The time consumed in retrieving the IFRS data related to Covid-19 was quite less because of the simplicity of the random sampling technique. We selected three groups as sample units which consumed less time (Lien et al., 2007). We ensured that selected files contained enough information to represent the full effects of Covid-19 on IFRS. There have been considerably fewer resources containing relevant data regarding adjustment in the IFRS because of Covid-19. The entire random sampling process is relatively less costly in terms of time and money to access the required data (Greyson, 2007).

4. Data Analysis

The study applied the ethnographic method to retrieve data from cloud storage. By using keywords, data was searched from Google Finance and Yahoo Finance search engines. These keywords included IFRS, International Financial Reporting, IFRS Policies, Covid-19 and IFRS and other related terms. Accordingly, 55 files were downloaded from the cloud storage that consists of e-government financial reporting websites. This resulted in obtaining valid and realistic dataset. Cloud storage also included files relevant to IFRS adjustment, and thus this enhanced the data validity (Goerner et al., 2009). The gathered files included the name of the countries that follow IFRS. Two countries names, i.e., Japan and the U.S were used to search the relevant data on the effects of Covid-19 on IFRS (Sharpe et al., 2020).

Our data files also included the IFRS guidelines 1-17 that provided the relevant data. Random sampling, along with descriptive design, allowed for more significance of the results. Data permitted filtration to get rid of irrelevant and obsolete data. Random sample helped to attain a suitable level of relevance with a reduced difference. All this helped obtain a valid result and meet the objectives of this study.

5. Discussion

To deal with the uncertainties on entity reporting, the IFRS have asked to report financial results for an extended period. Financial reporting of share-based payment with short term economic outcomes is accepted under the IFRS. The IFRS have introduced FVM under the revised IFRS, which considers the current market values to make future prices forecast. Also, the changed IFRS allow financial reporting of default loans and payable through ECL disclosure for short term (Seiwald & Polzer, 2020).

Accordingly, any discounts and reduction in price are reported through short term financial reporting. Liabilities reporting is made on the assumption that an entity is operating on a current cash basis (Broadstock et al., 2020). Likewise, compensation for absence is reported as liability according to the revised IFRS. The Revised and adjusted IFRS consider changes in current market prices and provide a standardised financial reporting mechanism (Chang et al., 2020).

As discussed previously, the random sampling method allows us to verify the effects of Covid-19 on the IFRS (Greyson, 2007). The random sampling process was repeated many times to obtain the required results. Random sampling method was aligned with the objectives of this study to investigate the effects of Covid-19 on the IFRS (Espinosa et al., 2020).

Covid-19 has equally affected financial reporting system globally. Covid-19 has caused market price fluctuations, which has induced changes in the IFRS for financial reporting purposes (Rababah et al., 2020). As a result, it was necessary to alter the IFRS to reflect Covid-19 effects in financial reporting. The revised IFRS facilitate the financial reporting under the Covid-19 situation of the market. Now the IFRS allow for short term reporting to align with market price fluctuations (Broadstock et al.2020). The adjusted IFRS are now being used across companies to cater to the effects of Covid-19 on financial reporting.

For this study's purpose, the data has been taken from the countries that are following the IFRS and are facing the Covid-19 pandemic situation. These countries have adopted the revised IFRS, keeping in view the effects of Covid-19 on financial reporting (Spangenberg, 2005). In countries facing a severe Covid-19 situation, for example, the US has a more significant impact of revised IFRS on financial reporting. Accordingly, there is a greater need for the adjusted IFRS in countries positively affected by pandemic to avoid financial reporting difficulties.

6. Recommendation

The results show that Covid-19 has affected the uniform applications of the IFRS across countries. The IFRS applications under the current market situation require a revision of the accounting procedure and reporting financial results on a short-term basis. Because of Covid-19 interim reporting is recommended. There is the need to adjust the IFRS to deal with the current effects of Covid-19 (Rababah et al., 2020). For example, in case of the IFRS-9, the reporting period and disclosure of reporting ECLs have been amended. The disclosure

requirements have been changed due to the assumption and quantification of expected future cash flow (Lien et al., 2007).

The IFRS have developed fundamental guidelines to address the issue of Covid-19 while doing financial reporting. The US has already allowed firms to implement the adjusted IFRS owing to the Covid-19 situation. The adjusted IFRS now enable firms to report financial results under new disclosure requirements. The adjusted IFRS have introduced the short term and interim reporting mechanism. It has been found that Japan has implemented the IFRS since 2009, and forty-six local firms follow the IFRS while reporting financial results. Japan has already asked local domestic firms to follow the adjusted IFRS with reduced preparation and reporting time of financial statements (Spangenberg, 2005).

7. Conclusion

Our study found that Covid-19 has affected the financial reporting mechanism across firms, especially in countries severely affected by Covid-19. Firms are facing difficulties in reporting their financial results under the current pandemic situation. This required an adjustment in the IFRS to respond to the Covid-19 effects. Firms agreed to use the adjusted IFRS to combat the effects of Covid-19 as the adjusted IFRS provide uniform reporting mechanism under the pandemic situation (Rababah et al., 2020).

The adjusted IFRS provide guidelines on measuring fair value depending on the future forecast of the current market values. The IFRS adjustments have also facilitated the reporting of share-based payment for the short term. These adjusted IFRS also guide on reporting the ECLs to reflect the Covid-19 situation (Goerner et al., 2009). Short term reporting allowed under the adjusted IFRS also defines the mechanism of reporting discounts and price reductions (Lien et al., 2007). The adjusted IFRS provided the solution to the problem in financial reporting in a pandemic situation (Mota et al., 2015) It is easy to do financial reporting because of the adjusted IFRS despite the Covid-19 challenges to financial reporting. There have been improvements in IFRS to facilitate efficient financial reporting. Accordingly, firms have adopted the adjusted IFRS to smooth their financial reporting under the Covid-19 situation (Fath, 2015).

REFERENCES

- Abbas, S., Hadi, A. A., Abdullah, H. O., Alnoor, A., Khattak, Z. Z., & Khaw, K. W. (2021). Encountering Covid-19 and perceived stress and the role of a health climate among medical workers. *Current Psychology*, 1-14.
- Abdulaali, A. R., Alnoor, A., & Eneizan, B. (2019). A multi-level study of influence financial knowledge management small and medium enterprises. *Polish Journal of Management Studies*, 19.
- Abdullah, H., Ismail, I., Alnoor, A., & Yaqoub, E. (2021). Effect of perceived support on employee's voice behaviour through the work engagement: a moderator role of locus of control. *International Journal of Process Management and Benchmarking*, 11(1), 60-79.
- Al-Abrow, H., & Alnoor, A. (2017). The impact of locus of control and relationship quality in counterproductive work behavior through trust in the leader and psychological empowerment: An empirical study on workers in public hospitals in Basra. *Jordan Journal of Business Administration*, 13(2), 201-231.
- Al-Abrow, H., Alnoor, A., & Abbas, S. (2019). The effect of organizational resilience and CEO's narcissism on project success: Organizational risk as mediating variable. *Organization Management Journal*, 16(1), 1-13.
- Alhamdi, M., Alnoor, A., Eneizan, B., Abdulla, M., & Abdulaali, A. R. (2019). Determinants of the production system time (jit) on reduce waste: Case study in a salsal water company. *International Journal of Academic Research in Business and Social Sciences*, 9(7), 17-32.
- Alnoor, A. (2020). Human capital dimensions and firm performance, mediating role of knowledge management. *International Journal of Business Excellence*, 20(2), 149-168.
- Alnoor, A. M., Al-Abrow, H., Abdullah, H., & Abbas, S. (2020). The impact of self-efficacy on employees' ability to accept new technology in an Iraqi university. *Global Business and Organizational Excellence*, 39(2), 41-50.
- Alnoor, A., Eneizan, B., Makhmreh, H. Z., & Rahoma, I. A. (2018). The effect of reverse logistics on sustainable manufacturing. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 9(1), 71-79.
- Anand, S., & Sen, A. (2000). Human Development and Economic Sustainability. *World Development*, 28(12), 2029–2049.
- Ayres, R. U. (2008). Sustainability economics: Where do we stand? *Ecological Economics*, 67(2), 281–310.
- Broadstock, D. C., Chan, K., Cheng, L. T. W., & Wang, X. (2020). The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China. *Finance Research Letters*, 101716.
- Chang, C.-L., McAleer, M., & Wong, W.-K. (2020). Risk and Financial Management of COVID-19 in Business, Economics and Finance. *Journal of Risk and Financial Management*, 13(5), 102.
- Demircuc-Kunt et al., (2020). Banking Sector Performance During the COVID-19 Crisis



- Devi et al., (2020). The Impact of COVID-19 Pandemic on the Financial Performance of Firms on the Indonesia Stock Exchange. *Journal of Economics, Business, & Accountancy Ventura*. 23(2). 226 – 242.
- Eneizan, B., Mohammed, A. G., Alnoor, A., Alabboodi, A. S., & Enaizan, O. (2019). Customer acceptance of mobile marketing in Jordan: An extended UTAUT2 model with trust and risk factors. *International Journal of Engineering Business Management*, 11, 1847979019889484.
- Fath, B. D. (2015). Quantifying economic and ecological sustainability. *Ocean & Coastal Management*, 108, 13–19.
- Folger-Laronde, Z., Pashang, S., Feor, L., & ElAlfy, A. (2020). ESG ratings and financial performance of exchange-traded funds during the COVID-19 pandemic. *Journal of Sustainable Finance & Investment*, 1–7.
- Goerner, S. J., Lietaer, B., & Ulanowicz, R. E. (2009). Quantifying economic sustainability: Implications for free-enterprise theory, policy, and practice. *Ecological Economics*, 69(1), 76–81.
- Greyson, J. (2007). An economic instrument for zero waste, economic growth, and sustainability. *Journal of Cleaner Production*, 15(13-14), 1382–1390.
- Hadi, A. A., Alnoor, A., & Abdullah, H. O. (2018). Socio-technical approach, decision-making environment, and sustainable performance: Role of ERP systems. *Interdisciplinary Journal of Information, Knowledge, and Management*, 13, 397-415.
- Hadi, A. A., Alnoor, A., Ismail, E., Eneizan, B., & Makhamreh, H. Z. (2019). Psychological contract and organizational misbehavior: Exploring the moderating and mediating effects of organizational health and psychological contract breach in Iraqi oil tanks company. *Cogent Business & Management*, 6(1), 1683123.
- Jabbar, A. K., Almayyahi, A. R. A., Ali, I. M., & Alnoor, A. (2020). Mitigating Uncertainty in the Boardroom: Analysis to Financial Reporting for Financial Risk COVID-19. *The Journal of Asian Finance, Economics, and Business*, 7(12), 233-243.
- Khullar, D., Bond, A. M., & Schpero, W. L. (2020). COVID-19 and the Financial Health of US Hospitals.
- Lien, G., Brian Hardaker, J., & Flaten, O. (2007). Risk and economic sustainability of crop farming systems. *Agricultural Systems*, 94(2), 541–552.
- Mota, B., Gomes, M. I., Carvalho, A., & Barbosa-Povoa, A. P. (2015). Towards supply chain sustainability: economic, environmental, and social design and planning. *Journal of Cleaner Production*, 105, 14–27.
- Rababah et al., (2020). Analyzing the effects of COVID-19 pandemic on the financial performance of Chinese listed companies *J Public Affairs*.20(4).1-6.
- Schaltegger, S. (2011). Sustainability as a driver for corporate economic success. *Society and Economy*, 33(1), 15–28.
- Schneider, A. (2014). Reflexivity in Sustainability Accounting and Management: Transcending the Economic Focus of Corporate Sustainability. *Journal of Business Ethics*, 127(3), 525–536.



-
- Seiwald, J., & Polzer, T. (2020). Reflections on the Austrian COVID-19 budgetary emergency measures and their potential to reconfigure the public financial management system. *Journal of Public Budgeting, Accounting & Financial Management*,
- Sharpe, R. E., Kuszyk, B. S., & Mossa-Basha, M. (2020). Special Report of the RSNA COVID-19 Task Force: The Short- and Long-Term Financial Impact of the COVID-19 Pandemic on Private Radiology Practices.
- Spangenberg, J. H. (2005). Economic sustainability of the economy: concepts and indicators. *International Journal of Sustainable Development*, 8(1/2), 47.
- Tejomurti et al., (2020). Application of The Proportionality Principle In The Credit Restructuring Policy For The The SMEs Financial Performance During The Covid-19 Pandemic In Indonesia