REVENUE STANDARD AND EARNINGS MANAGEMENT DURING THE COVID-19 PANDEMIC: A COMPARISON BETWEEN IFRS AND GAAP

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Abstract

International Financial Reporting Standards 15 — Revenue from Contracts with Customers (IFRS 15) was issued to inhibit the use of revenues for earnings management purposes. During COVID-19, the standard was used to manage earnings (Lopatta, Alexander, Gastone, & Tammen, 2020). This study aims to explain earnings management practices by using a revenue standard. An online questionnaire was distributed by Momentive Inc. (formerly SurveyMonkey Inc.) to accountants working in two different contexts: Jordan as an IFRS country and the USA as a Generally Accepted Accounting Principles (GAAP) country. A convenience sample of 304 questionnaires from both countries was valid for analysis. The findings of ordinary least square (OLS) regression suggest that, during COVID-19, both users used the revenue standard as a tool to manage earnings. In addition, IFRS users were more conservative than GAAP users in terms of existing contracts, while both of them were the same in terms of future contracts. The results should help policymakers and regulators to rethink the flexibility given to managers in dealing with revenue contracts. In addition, they should help managers efficiently manage the revenue contracts.

Keywords: IFRS 15, IAS 18, ASC 606, Revenue from Contracts with Customers, COVID-19, Earnings Management

1. INTRODUCTION

Implementation or adoption of International Financial Reporting Standards (IFRS) affects earnings management or manipulation (Dahlén & Lindberg, 2017). Zha Giedt (2018) and Son and Lim (2017) tried to simplify the understanding and meaning of earnings management, and how it is affected by

IFRS. Several previous researchers showed that IFRS adoption forced the companies to serve optimally, and enhance the quality of financial reporting and protect investor interests (Fields, Lys, & Vincent, 2001). As well, Cai, Rahman, and Courtenay (2012) and Rudra and Bhattacharjee (2012) documented that adoption of IFRS decreases the earnings management practices through limiting the opportunistic discretion of management as documented by Barth, Gómez-Biscarri, Kasznik, and López-Espinos (2012), and, consequently, the adoption of IFRS limit the use of discretionary accruals and thus, improve the quality of financial reporting.

Revenue is a crucial number to financial statements' users in evaluating the financial performance of the entity. However, the requirements of the revenue recognition in Generally Accepted Accounting Principles (GAAP) vary from those in IFRS. GAAP comprises broad concepts of revenue recognition and several requirements for particular transactions or industries that can lead to the different accounting treatments for similar transactions, while IFRS required fewer requirements on revenue recognition (Financial Accounting Standard Board [FASB], 2012).

Inconsistencies and weaknesses in each of IFRS and GAAP had been noted by the standard setters. Thus, a joint project began between the International Accounting Standards Board (IASB) and the Financial Accounting Standards Board (FASB) to illustrate the recognizing principles for revenue and to evolve a common revenue standard for both IFRS and GAAP that would remove weaknesses and inconsistencies in the current revenue requirements in both IAS 18 and ASC 606, in addition to improving the comparability of revenue recognition practices across entities in different contexts, provide a more powerful framework for dealing with various revenue issues (Dalkılıç, 2014; Munter, 2011). This standard was called Revenue from Contracts with Customers. As with other latest accounting standards, this standard aimed at controlling and limiting earnings management.

The accounting systems provide the right and power to corporate managers to use their judgment while preparing financial statements and determining earnings (Franceschetti, 2018). This is called earnings management. The phenomenon of earnings management became a hot worldwide issue facing economies, and it has increased significantly in the last two decades (Al-Sraheen, 2019). Earnings management provides an ethical environment in which suspicious activities may occur (Saleh, Abu Afifa, & Alsufy, 2020). Yassin, Abdallah, and Al-Ibbini (2015) indicated that weak performance provides incentives to engage in earnings management.

Following the initial outbreak of coronavirus in late 2019, as the global economy and global stock markets were upheavals particularly after classifying this disease as an epidemic; the negative effects of this epidemic remained harming the global economy until the end of 2020. To limit the further spread of the disease, governments have issued strict and preventive measures that have severely restricted public life (World Health Organization [WHO], 2020). However, social differences between countries have led governments to put different action plans in place with diverging measures. Some countries provided several actions as quick solutions that countries have taken to revive their economy and reduce the negative impact of the coronavirus. Such actions differ according to the circumstances of the country, but they include wage subsidies, tax deferrals, extending social assistance, unemployment insurance, and temporarily adjusting loan terms. The rates of interest have been lowered in numerous countries. Master central banks have activated swap lines and established new ones to reduce the stress of the financial market. Most of these actions have been taken in the first wave of policy support in the COVID-19 crisis. From the corporate management's point of view, such actions are deemed as channels for practicing earnings management, especially concerning the changes in contracts with customers that companies have entered into under IFRS 15 in line with requirements of the COVID-19, which companies exploited it to practice earnings management (Lopatta et al., 2020). Despite such drastic actions, fears of a drastic recession similar to the 2008 financial crisis are intensifying in addition to the forecasts of the International Monetary Fund (IMF) that the present pandemic will dip the global economy into the most severe crisis since the Great Depression (von Petersdorff-Campen, 2020).

Accounting standard setters aimed with their guidelines to provide users with transparent, complete, and safe financial information (Yassin & Al-Khatib, 2019). Recently, the accounting standard setters have started offering increased attention to the influence of the COVID-19 crisis on the financial situations of companies. They are mainly concerned about how this circumstance will affect the financial disclosures' accuracy, indicating that COVID-19 will play a vital role in preparing financial disclosures of firms for the first quarter ending on March 31, 2020, and those after. The Division of Corporation Finance of Securities and Exchange Commission (SEC) published on March 25, 2020 guidance stating explicitly that the crisis of COVID-19 represents a material and key risk for all public companies and thus has to be fully incorporated incoming financial reporting. Therefore, it is necessary for firms to immediately address the several risks related to coronavirus by drawing up concrete action and proper short-term plans, such as building necessary accounting reserves, holding cash through stopping the payment of dividends in order to maintain the firm liquidity. It is also necessary that firms building contingency plans to respond to unpredictable crises (Lopatta et al., 2020). The FASB in its financial accounting series No. 5-2020 issued in June 2020 stated, "The board is committed to supporting and assisting stakeholders during this difficult time. Recently, the board received feedback through comment letters that many private companies and NFP entities are experiencing challenges with finalizing their transition to revenue under a compressed timeline because of the unique challenges resulting from the COVID-19 pandemic. Therefore, the Board extended the deferral to certain entities that have not yet issued their financial statements (or made financial statements available for issuance) reflecting the adoption of Revenue, rather than limiting the deferral to franchisors" (FASB, 2020, p. 2). Thus, under COVID-19, IFRS 15 became a way to practice earnings management rather than being a deterrent to such practices.

IFRS 15 has changed significantly the revenue recognition philosophy, not only to offer a fairer representation of firms' revenues but also to restrain the use of corporate revenues for earnings management purposes.

Enron, HIH Insurance, WorldCom, Nortel, eToys, HealthSouth, Rite Aid, and Arthur Anderson, as examples of the latest global corporate collapses, have robustly indicated that most corporate managers nowadays are involved in earnings management practices. Consequently, earnings management practices may not show the actual performance of an entity, and the corporate shareholder will be powerless to make any decisions or evaluate their economic decisions correctly (Toumeh & Yahya, 2019). Therefore, it can be said that giving corporate managers a space of flexibility in using their judgment and personal estimations in some special circumstances such as the crisis the world is going through in 2020 and beyond due to the coronavirus may contribute to increasing earnings management practices. Therefore, it is deemed interesting to consider the role of Revenue From Contracts With Customers standard, which limits earnings management practices on the one hand, and the flexibility afforded to corporate managers under the COVID-19 crisis that contributes to increasing the practice of earnings management on the other hand. Thus, this contradiction is deemed as the basis and motivation for conducting this study.

Based on that, this study spots the light on the role of Revenue From Contracts With Customers standard in reducing the practice of earnings management particularly under the impact of the COVID-19 on the world's economies, which has allowed companies the flexibility to adjust and make some changes to contracts with customers and the associated revenue. Particularly, the influence of the outbreak of COVID-19 on the contracts with customers may call into question the ability of firms, as well as their customers, to adhere to the stated terms and conditions of their contracts. This may influence both the amount and timing of revenue to be recognized, or whether revenue should be recognized at all. For instance, firms may need to consider the following. Rights to payment for performance may not be enforceable to date due to compelling circumstances or similar issues being invoked. Does this influence the revenue recognition principle over time? In addition, firms and their customers may attempt to change the existing contract terms as a response to the influences of the outbreak of COVID-19 on their business. How should firms account for such contract modifications? Determining the enforceable rights and obligations may require accurate judgment and reassessment regularly. In a constant change in circumstances, firms should closely monitor their contract terms' enforceability (O'Donovan, 2020).

The need for this study arose due to the various changes made over the last few years on Revenue from Contracts with Customers standard because it can be deemed as one of the fateful issues for firms. As Stubben (2010) argued that corporate revenues are both easily investigated and one of the essential earnings subject to discretion. The primary purpose of this study was to discover the effect of Revenue from Contracts with Customers standard on earnings management practices during the COVID-19 pandemic. Although this topic has been previously investigated in the context of countries with large economies such as Italy and Germany (Haggenmüller, 2019; Tutino, Regoliosi, Mattei, Paoloni, & Pompili, 2019), this study contributes by comparing different viewpoints of IFRS users compared to GAAP users. In addition, the study compares the practices of users in two different contexts; Jordan as a developing country that applies IFRS and the USA as a developed country that applies GAAP. It offers empirical evidence that earnings management is more or less frequent in different countries. Finally, the study will examine these differences under different circumstances, which is the COVID-19 that is considered the most important contribution to this study.

The rest of this paper is structured as follows. Section 2 provides a literature review summarizing the literature related to the revenue standard in addition to the earnings management and develops hypotheses. Section 3 presents the used research methodology to test our hypotheses. Section 4 presents data analysis and results explanation. Section 5 discusses the results. Section 6 provides the conclusion of the paper.

2. LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Although most of the earnings management literature is based on agency theory and information asymmetry hypothesis, this paper confirms that contingency theory can explain earnings management practices based on business strategy (Purba, Fransisca, & Joshi, 2021). As contingency theory suggests that the optimal business actions are contingent upon internal and external variables. Business managers are flexible to choose the strategies to suit any changes in business situations at a particular period in time (Fielder, 1974). This paper provides empirical evidence on the contingency theory, supposing that during the COVID-19 pandemic, firms may use Revenue from Contracts with Customers standard in both IFRS and GAAP to manage earnings as a way to face the risks caused by the COVID-19 pandemic.

Revenue is one of the main absolute financial ratios which represent the economic benefits produced by companies resulting in increased equity of shareholders (Vaicekauskas, 2020). The revenue of the enterprise is the most significant financial information which gives objective indications of the business' economic condition. They are indeed a major determinant of its financial stability which is used by both corporate management and potential investors to develop strategies for future economic growth (Staneva, 2019). Under Revenue from Contracts with Customers standard, an organization will recognize revenue to represent the transfer of delivered services or goods to customers in a sum that represents the compensation the organization expects to be entitled to in return for those services or goods. COVID-19 crisis may have an impact on management's assumptions in measuring revenue from already delivered goods or services, especially for variable consideration and for the anticipated outcome of contacts that extend over multiple reporting periods. Reduced demand could result, for example, in an increase in expected returns, reduced

volume discounts, additional price concessions, late delivery penalties, or a reduction in the prices that the customer can obtain (Arnold & Gould, 2020). The diffuse effect of the COVID-19 pandemic could bring into question the firms' and customers' ability to adhere to the specified terms of their contracts. The amount and timing of recognition of revenue can therefore be greatly affected to the degree that revenue should not be recognized at all (O'Donovan, 2020). As it has been noted above, the Jordanian Stock Market probably faces a greater amount of asymmetrical information due to the COVID-19 pandemic, and the firm's management may have incentives to exercise earnings management behavior under the impact of COVID-19 on the world's firms.

Revenue recognition standard introduces new changes in the existing practice regarding the time and the amount of the recognition of the revenue in the company chosen, where the most considerable changes are related to the distribution of the transaction price, to the sales with the right of return and to use licenses (Stárová, Čermáková, Lőrinczová, Navrátilová, & Beranová, 2017). Revenue standard has been introduced to address deficiencies and inconsistencies in the requirements for recognition of revenue by setting a comprehensive and coherent framework for all forms of contract (Hameed, Al-taie, & Al-Mashhadani, 2019). Implementation of revenue recognition standard requires a change in the accounting system followed and a revision of all open contracts (Murthy, 2014). Full implementation of 15 requires a process that is not easy and involves considerable time allocation and funding (Bernoully & Wondabio, 2019). Moreover, it is essential that professional accountants remain committed to their ethical responsibilities as well as the public interest. In order to combat higher risks of fraud and financial misrepresentation, it is very important for them to exert increased diligence and professional judgment, and to ensure proper use of government and other assistance (Arnold & Gould, 2020). Empirical studies in this area aim to obtain empirical evidence that the revenue standard application, guided by COVID-19, provides earnings management. According to Toumeh and Yahya (2019), the application of IFRS does not necessarily lead to the prevention of earnings management practices, because IFRS contains many methods of earnings management and various accounting choices that allow managers to exercise their judgment. In a related study and compared to the Continental European and Anglo-Saxon companies, Latin American companies have a higher practice of earnings management. Although all of these companies adopt full IFRS, the findings indicate that economic, legal environment and local culture may still affect domestic accounting practices and may affect how IFRS is applied (Rathke, Santana, Lourenço, & Dalmácio, 2016).

Agency theory proposed that monitoring mechanisms would produce control over the process of financial reporting and deter earnings management practices (Toumeh, Sofri, Yassin, & Ayoush, 2021). Earnings management could either be considered legitimate if the firm's managers comply with the IFRS or illegitimate if there are violations of those standards. The techniques of earnings management may be suspected as fraudulent practices according to how firm's managers use those techniques (Toumeh & Yahya,

2019). Manipulation of earnings to overestimate them made profits and operating cash flows highly significant in reacting to the explanation for the change in stock prices (Aljawaheri, Ojah, Machi, & Almagtome, 2021). Therefore, the need to explore the role of revenue recognition standard in reducing the practice of earnings management is motivated by the recent interest shown by the governments, regulatory agencies, and policymakers, especially after the effect of the COVID-19 pandemic on the firm's performance. The COVID-19 pandemic's magnitude of the outbreak has greatly affected organizations of every size across all sectors of industry. The consequences on financial reporting and audit responsibilities are also complicated and so there is a matchless effect of market uncertainty, future earnings, and several other components that represent key elements of financial reporting. As a result, for the reporting purposes in the short and potentially medium term, there will be several implications for the financial reporting to be considered by financial statements preparers (Arnold & Gould, 2020). Furthermore, the pandemic of COVID-19 showed an emergency of international concerns, and more than 200 countries reported cases that resulted in life, health, and economic losses (Ahmad, Haroon, Baig, & Hui, 2020). Coronavirus disease (COVID-19), essentially in developing nations, has had a critical impact on economies and global health systems. Those nations have been struggling to tackle the pre-existing disease's burden with insufficient resources which will become much more complicated during COVID-19 (Rodela et al., 2020). The effects of the outbreak of COVID-19 have led to a major deterioration in economic situations for some firms and created economic uncertainty for many parties. Firm's management needs to evaluate if these conditions raise serious doubts about the ability of the firm to keep going as a going concern or whether the underlying assumption of a going concern is still relevant in severe cases as a basis for preparing the financial statements for a company (O'Donovan, 2020). The pandemic of COVID-19 has greatly affected all industries in developing nations and, as a result, Jordan is one of those developing economies that need to do more research to improve the quality of financial reporting and to help raise the economic system to higher levels in the future.

Prior research has shown that the adoption of IFRS may affect the way a firm manages its earnings. Fernandes (2019) explores accountants' views and opinions in the Republic of Ireland on IFRS 15 (Revenue from Contracts with Customers). The results found that while IFRS 15 was appreciated by the accountants and how transparent reporting would result, they were less confident about the degree of subjectivity involved in decision-making. The results also indicate that accountants could not express their views on the contribution of IFRS 15 to global comparable reporting. Fuad and Wijanarto (2017) find that the adoption of IFRS is negatively associated with accrual earnings management. Their results concluded that after a period of implementation of IFRS, the level of discretionary accruals on Indonesian manufacturing companies is decreasing. Haggenmüller (2019) examines the main challenges and problems that may appear during the implementation of IFRS 15 and assesses the probable effect on the profitability

and performance of companies. The study results indicate that IFRS 15 deals primarily with specific industries which have difficulties applying prior IFRS revenue recognition requirements due to a lack of or non-specific guidance requiring them to apply non-IFRS standards. Unlike most of the previous research, Rahmaningtyas and Mita (2017) revealed that the adoption of IFRS does not reduce the opportunistic earnings management level. Conversely, after the adoption of IFRS the earnings management level is higher compared with before the adoption of IFRS. One possible explanation for this increase in the level of earnings management is may be due to the adoption of IFRS is still in the early stage. Likewise, Santy, Tawakkal, and Pontoh (2016) evaluate the effects of IFRS adoption on the level of earnings management and the assessment of the difference in earnings management between pre- and post-adoption of IFRS. The result indicates that the adoption of IFRS did not affect the reduction of earnings management level (Aljawaheri et al., 2021) concluded that earnings manipulation has a negative impact on financial market investor behavior which is primarily reliant on financial reporting. Because of the COVID-19 outbreak and the resulting economic lockdown, the value relevance of financial reporting had also decreased.

Users and regulators can be cautious about non-GAAP performances measures such as adjusted income or subtotal loss measurements, in particular if these are based on "missing" income forecasts. In times of crisis, user skepticism for such solutions is increased if management is pressured to alleviate alleged underperformances through taking advantage of the flexibility that exists in the standards and their application especially in times of crisis for important standards that affect income directly, such as the revenue standard. The reporting declaration from the global securities authorities in COVID-19 says that companies must avoid concealing their portrayal of their performance with non-GAAP performance measurements. It may be unacceptable for entities to use such flexibility unless they provide a reasonable rationale for the modifications as well as a clear explanation of why they are being presented (IFRS, https://www.ifrs.org/issued-standards/list-of-standards/).

The COVID-19 epidemic, which began in the first quarter of 2020 and led to a global financial crisis, appears to have brought this condition to the attention of shareholders and investors. As a result, financial reports that reflect poor financial performance are understandable. However, managers continue to beautify the current and future performance by employing their power in exploiting the flexibility that exists in the standards which focus accounts related to revenue, which are accounts receivable, current deferred revenues, and long-term deferred revenues and revenue from contracts, such practices may create space for management to engage earnings management (Azizah, 2021; Zha Giedt, 2017). In times of crisis, user skepticism for such solutions is increased if management is pressured to make use of modifications to alleviate alleged underperformances. The reporting declaration from the global securities authorities in COVID-19 says

that companies must avoid concealing their portrayal of their current and future performance with non-GAAP performance measurements (IFRS, https://www.ifrs.org/issued-standards/list-of-standards/).

The revenue standard was created to address flaws and inconsistencies in revenue recognition standards by developing a complete and universal framework for all forms of contracts (Hameed et al., 2019). The companies expect that the revenue standards have a significant impact on revenue recognition and profit recognition accounting (Belesis, Sorros, Karagiorgos, & Kousounadis, 2021). Revenue from Contracts with Customers standard has considerably altered the revenue recognition methodology, not only in terms of providing a more accurate picture of corporate revenues but also in terms of preventing the use of revenues for earnings management purposes (Napier & Stadler, 2020).

Studies concentrating on the impact of revenue recognition standards on earnings management have come up with mixed findings. Xiao and Xi (2021) looked into the link between the COVID-19 outbreak and the earnings management strategies used by Chinese publicly traded companies. The findings of their study showed that in enterprises in the most seriously impacted locations, accrual-based earnings management (AEM) increased whereas real activity-based earnings management (REM) decreased significantly. According to Aljawaheri et al. (2021), the COVID-19 epidemic and the resulting economic lockdown have reduced the value relevance of financial reporting. They showed that corporations manipulate earnings to maintain earnings over time, implying that earnings manipulation has a detrimental influence on the value relevance of all earnings measures (EPS, BVS, and CFS). As a result, earnings manipulation has a negative impact on investor behavior in the financial market, which is mostly driven by financial reporting. Tutino et al. (2019) investigate the impact of the adoption of IFRS 15 on earnings management. Their findings show that earnings management strategies are frequently used in the telecommunications industry, which is significantly influenced by IFRS 15.

Through the foregoing discussion about the role of the revenue recognition standard in increasing the practice of earnings management, it has been found that there view related to standards' setters and regulators according to which this standard of revenue recognition has been issued to limit personal estimates and thus limit the practice of earnings management. But in the circumstances of the financial crises facing economies, the use of this standard has turned into an earnings management tool that seeks to cover losses and bad performance during financial crises such as the COVID-19 crisis. Therefore, based on the foregoing discussion, the study provides the following hypotheses.

$H1_0$: There are no differences between the IFRS and GAAP practices for the revenue from existing contracts with customers during the COVID-19 pandemic.

$H2_0$: There are no differences between the IFRS and GAAP practices for the revenue from future contracts with customers during the COVID-19 pandemic.

$H3_0$: There are no differences between the IFRS and GAAP practices for earnings management during the COVID-19 pandemic.

The results of the previous research show a positive association between revenue standard and reported income before tax which refers that corporate managers are more likely to choose practices of revenue reporting regarding revenue timing that led to maximizing the value of earnings (Serdarević, & Muratović-Dedić, 2021). They also documented that construction firms have a positive relationship between revenue standard and disclosed material usage to assets, the timing of revenue recognition is affected by the pressures to disclose relative material usage to assets. Thus, such results confirm the assumption that there exists an incentive for managers' decisions regarding the value of revenue recognized. The structure and the required change over time for the real activities can be made as documented by Caylor (2010) through the revenue recognition strategy in deferred revenue and accrued revenue and other related methods. Caylor (2010) pointed out that corporate managers manipulate accounts receivable and deferred revenue to avoid negative earnings surprises, but he also found little evidence of managers avoiding decreases or losses in earnings. Caylor (2010) reported that corporate managers also practice earnings management in contractual agreements with customers using manipulation or changes in accounting estimates in order to accelerate the recognition of receivables.

There is no previous study to the best of the researcher's knowledge that examines if the financial statements contain earnings management through using revenue recognition standards because this revenue standard practically is one of the key tools that managers could use particularly in the COVID-19 period to practice earnings management as supported by Gunny (2010). Despite that, the result of Dewi and Herusetya (2016) has not found evidence that a revenue recognition strategy acts as an earnings management tool. The construction firms operate in a distinctive environment and with specific contracts. Thus, due to the unique nature of the construction industry and its specific requirements such as the special value-added tax scheme for construction as mentioned by Serdarević, and Muratović-Dedić (2021) as well as the current crisis that resulted from the pandemic of COVID-19.

The effect arising from using revenue recognition standard due to the COVID-19 crisis is assumed to be an incentive for higher real earnings management levels. So, therefore, the current study seeks based on the aforementioned assumption to determine whether corporate managers employ their discretion in the timing of revenue recognition and through employing the flexibility that exists in the revenue standard as one form of real earnings management, particularly under the COVID-19 situation. Graham, Harvey, and Rajgopal (2005) pointed out that there is a willingness of the large majority of corporate managers to meet an earnings target by delaying the timing of new investments. This study was based on building its above-mentioned assumption on the results of previous studies such as Gunny (2010) who documented that capture that there is a relationship between earnings management using different real activities manipulation and performance, such assumption is also deemed as the basis of conducting this study and is also considered a key contribution to the current study.

The results of the previous studies indicate that the revenue standard is mainly dealing with specific industries which had confusion in applying previous requirements of revenue recognition due to unspecific or missing guidance forcing them to employ standards outside of IFRS. Due to its complexity, however, the revenue standard also negatively affects firms with simple business models in addition to its implementation that may need work-intensive, difficult, and unexpectedly time-consuming without leading to material changes. Despite that the revenue standard appears to be necessary, it is expected that it rather represents a complicated combination of various existing standards and consequently fails to help the profession and this depends on the managers' purpose of using this standard. Therefore, the predefined purpose of revenue standard is, at minimum, may work as a double-edged weapon as previously mentioned. Therefore, the following research hypotheses come to explain what we have referred to in the above-mentioned discussion.

$H4_0$: Revenue from existing contracts with customers practices does not affect earnings management during the COVID-19 pandemic.

$H4a_0$: Revenue from existing contracts with customers practices does not affect earnings management under IFRS during the COVID-19 pandemic.

$H4b_0$: Revenue from existing contracts with customers practices does not affect earnings management under GAAP during the COVID-19 pandemic.

$H5_0$: Revenue from future contracts with customers practices does not affect earnings management during the COVID-19 pandemic.

$H5a_0$: Revenue from future contracts with customers practices does not affect earnings management under IFRS during the COVID-19 pandemic.

$H5b_0$: Revenue from future contracts with customers practices does not affect earnings management under GAAP during the COVID-19 pandemic.

3. METHODOLOGY

This section describes the sample characteristics, the data collection process, and the proxies used to measure dependent and independent variables.

3.1. Sampling

The literature shows that the revenue standards that were issued by the FASB and the IASB had eliminated most differences between US-GAAP and IFRS in accounting for Revenue from Contracts with Customers (Boujelben & Kobbi-Fakhfakh, 2020; Napier & Stadler, 2020; Tong, 2014). For this reason, the sample of this study consists of accountants and auditors from two different jurisdictions. The target population of the study consisted of accountants who are working in two different contexts: the USA as a developed country that applied US-GAAP (specifically, ASC 606, Revenue from Contracts with Customers standard, and ASC 340-40, Other Assets and Deferred Costs — Contracts with Customers), and Jordan as a developing country that applied IFRS (specifically, IFRS 15, Revenue from Contracts with Customers standard) (PricewaterhouseCoopers [PwC], 2019). Each person in the above two groups represents the unit of analysis.

An online questionnaire survey was sent to the target respondents in the USA in April 2021, where 176 respondents replied. The number of usable questionnaires that were analyzed was 154. The same questionnaire was sent to the target respondents in Jordan in May 2021, where 156 respondents replied. The number of usable questionnaires that were analyzed was 150. Although not all respondents had responded to all questions, the resulting sample can be described as a convenience sample. One of the disadvantages of the online questionnaire is that the final sample may not optimally represent the target population which may affect the generalizability of the findings.

The respondents provided a reasonably representative profile of accounting professionals in different industries. Table 1 provides a socio-demographic profile of the respondents who participated in the study. The US sample was dominated by male respondents (53%) and the majority of the respondents fell in the "> 60" age group, while there were no respondents in the "< 18" group. Approximately 39% of the respondents hold a bachelor's degree.

Table 1. Respondents' profile

Socio-demographic variable	US sample		Jordanian sample		Total	
Gender	*n*	*%*	*n*	*%*	*n*	*%*
Male	81	53	100	67	181	60
Female	73	47	50	33	123	40
Total	**154**		**150**		**304**	
Age						
< 18	0	0	0	0	0	0
18–29	41	27	81	54	122	40
30–44	24	16	44	29	68	22
45–60	35	23	18	12	53	17
> 60	54	35	7	5	61	20
Total	**154**		**150**		**304**	
Education						
Did not complete high school	9	6	8	5	17	6
High school	19	12	31	21	50	16
College degree	42	27	30	20	72	24
Bachelor degree[1]	60	39	71	47	131	43
Post graduate degree	24	16	10	7	34	11
Total	**154**		**150**		**304**	
Job level						
Owner/executive	40	26	16	11	56	18
Senior management	20	13	25	17	45	15
Middle management	33	21	27	18	60	20
Intermediate	30	19	21	14	51	17
Entry level	17	11	44	29	61	20
Other	14	9	17	11	31	10
Total	**154**		**150**		**304**	

Note: [1] In Jordan, a bachelor's degree is a four-year university degree and a college degree is a two-year diploma.

The Jordanian sample as well was dominated by male respondents (67%) and the majority of the respondents fell in the "18–29" age group (54%), followed by the "30–44" group (29%). Approximately 47% of the respondents hold a bachelor's degree. It is noteworthy that although the US sample is dominated by the owner or executive job level (26%), the Jordanian sample is dominated by the entry-level jobs (29%).

3.2. Data collection

The questionnaire was pre-tested using a convenience sample of approximately 30 respondents in public shareholding companies listed on the ASE[1]. Data for the main study was collected over a two-month period during April and May 2021 using online questionnaire surveys. The questionnaire was distributed with the help of Momentive Inc. (formerly SurveyMonkey Inc.) which offers cloud-based solutions such as online survey development. The online survey is the only feasible way to collect data because the study targeted two different contexts in two continents.

3.3. Research model

Ordinary least square (OLS) regression is the main statistical tool that was used to achieve the objectives of this study. The main model will be used to test the effect of the revenue contracts accounting standard on earnings management. This model will be applied in two different contexts: the USA as a country that applied US-GAAP and Jordan as a country that applied IFRS. At the same time, the USA is considered a developed country, while Jordan is described as a developing county. In addition, the model will consider the application of the revenue standard on the existing and future contracts. The model is described below:

$$EM_i = \beta_0 + \beta_1 RevStd_i^{Ex} + \beta_2 RevStd_i^{Fu} + \varepsilon_i \qquad (1)$$

where, EM_i is the earnings management practices by respondent i; $RevStd_i^{Ex}$ is the revenue standard practices for existing contracts with customers by respondent i; $RevStd_i^{Fu}$ is the revenue standard practices for future contracts with customers by respondent i; ε_i is the error term.

3.4. Questionnaire

The questionnaire contained four different sections. The first section contained four general questions that covered socio-demographic attributes that describe the respondents as shown in Table 1, in addition to three questions that described the firms that the respondents work for, as shown in Table 2, and as follows: The US sample respondents were working in 103 US firms and 51 non-US firms. This classification will help in achieving the objectives of this study. The principal industry for the firms was

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[1] These pilot sample responses were added to the study sample later.

dominated by the finance and financial services industry (39%). The Jordanian sample respondents were working in 82 public shareholding firms and 68 other types of firms. The principal industry for the firms is dominated by the education industry (19%), advertising and marketing industry (14%) and 15% were currently not employed.

Table 2. Firms' description

Socio-demographic variable	US sample		Jordanian sample		Total	
Firm type (Jordan)	*n*	*%*	*n*	*%*	*n*	*%*
Public shareholding			82	55	82	55
Other types			68	45	68	45
Total			150		150	
Firm type (US)						
US firm	103	67			103	67
Non-US firm	51	33			51	33
Total	154				154	
Education						
Advertising & marketing	4	3	21	14	25	8
Agriculture	7	5	2	1	9	3
Airlines & aerospace (including defence)	7	5	3	2	10	3
Automotive	4	3	2	1	6	2
Business support & logistics	19	12	14	9	33	11
Construction, machinery, and homes	4	3	5	3	9	3
Education	4	3	29	19	33	11
Entertainment & leisure	4	3	2	1	6	2
Finance & financial services	60	39	5	3	65	21
Food & beverages	3	2	7	5	10	3
Government	3	2	4	3	7	2
Healthcare & pharmaceuticals	6	4	11	7	17	6
Insurance	3	2	1	1	4	1
Manufacturing	2	1	5	3	7	2
Non-profit	1	1	3	2	4	1
Retail & consumer durables	4	3	2	1	6	2
Real estate	2	1	3	2	5	2
Telecommunications, technology, Internet & electronics	4	3	3	2	7	2
Transportation & delivery	1	1	3	2	4	1
Utilities, energy, and extraction	1	1	2	1	3	1
I am currently not employed	11	7	23	15	34	11
Total	154		150		304	

As shown in Table 3, this section of the questionnaire contained two parts for measuring the independent variable, which is the revenue accounting standards. This measure included Likert scale statements which were labeled as 5 = Strongly agree, 4 = Agree, 3 = Neutral, 2 = Disagree, and 1 = Strongly disagree. The measures are as follows.

1. Revenue standard for existing contracts with customers: This variable was tapped by 13 items (Questions from RE1 to RE13) from PKF International Ltd. (2017) which asked respondents to indicate their responses toward measurement and recognition principles in the existing revenue contracts with customers. These principles include variable considerations, discounts, refunds, price concessions, performance bonuses or penalties, and collectability from customers. The measure was reported to have validity, and the Cronbach's alpha for the 13 items for the whole sample was 0.964.

Table 3. Questionnaire and descriptive statistics (Part 1)

Variable	Item No.	Item	Cronbach's alpha	*All respondents* n = 304		*Jordanian respondents* n = 150		*US respondents* n = 154	
				M	*SD*	*M*	*SD*	*M*	*SD*
$RevStd_i^{Ex}$		In light of Revenue from Contracts with Customers standard, and during the period of COVID-19, in the **existing** contracts with customers:							
	RE1	Revenues have been re-estimated.		3.60	1.35	3.74	1.26	3.47	1.42
	RE2	Contracts included variable considerations.		3.53	1.24	3.63	1.12	3.43	1.34
	RE3	Variable considerations have been re-estimated.		3.49	1.24	3.65	1.15	3.34	1.31
	RE4	Contracts included discounts.		3.45	1.33	3.55	1.24	3.34	1.40
	RE5	Discounts have been re-estimated.		3.44	1.29	3.55	1.20	3.32	1.37
	RE6	Contracts included refunds.		3.40	1.33	3.53	1.24	3.27	1.40
	RE7	Refunds have been re-estimated.		3.40	1.32	3.47	1.24	3.33	1.41
	RE8	Contracts included price concessions.		3.39	1.31	3.47	1.27	3.31	1.35
	RE9	Price concessions have been re-estimated.		3.43	1.28	3.51	1.16	3.36	1.38
	RE10	Contracts included performance bonuses or penalties.		3.37	1.29	3.49	1.21	3.25	1.35
	RE11	Performance bonuses or penalties have been re-estimated.		3.38	1.34	3.50	1.27	3.27	1.40
	RE12	Assessment of variable considerations will be revised.		3.43	1.30	3.60	1.24	3.33	1.36
	RE13	Collectability from customers is still possible.		3.51	1.27	3.61	1.21	3.41	1.33
	RE	Overall	0.964	3.45	1.09	3.55	0.93	3.34	1.22

Table 3. Questionnaire and descriptive statistics (Part 2)

Variable	Item No.	Item	Cronbach's alpha	All respondents n = 304		Jordanian respondents n = 150		US respondents n = 154	
				M	*SD*	*M*	*SD*	*M*	*SD*
$RevStd_i^{Fu}$		In light of Revenue from Contracts with Customers standard, and during the period of COVID-19, in the **future** contracts with customers:							
	RF1	Revenues estimation will be conservative.		3.54	1.24	3.61	1.13	3.48	1.34
	RF2	Contracts will include variable considerations.		3.49	1.21	3.59	1.11	3.38	1.29
	RF3	Contracts will include discounts.		3.44	1.27	3.47	1.20	3.42	1.33
	RF4	Contracts will include refunds.		3.42	1.31	3.42	1.26	3.42	1.36
	RF5	Contracts will include price concessions.		3.47	1.29	3.61	1.22	3.34	1.34
	RF6	Contracts will include performance bonuses or penalties.		3.52	1.26	3.59	1.22	3.46	1.30
	RF7	Collectability from customers will be possible.		3.52	1.25	3.57	1.19	3.47	1.31
	RF	Overall	0.925	3.49	1.05	3.55	0.93	3.43	1.15
EM_i		Earnings management practices:							
	EM1	Acceleration of the timing of sales is applied through increased price discounts or more lenient credit terms.		3.54	1.23	3.52	1.23	3.55	1.23
	EM2	Judgments and mending policies are used to meet expectations.		3.54	1.20	3.51	1.18	3.56	1.23
	EM3	Selecting an alternative of a certain accounting standard will cause the earnings number to meet the expectations.		3.56	1.21	3.61	1.23	3.51	1.18
	EM4	The company claims an increase in revenue without a corresponding increase in cash flows.		3.47	1.27	3.50	1.24	3.44	1.30
	EM5	The company reports an increase in earnings only in the final quarter of the fiscal year.		3.50	1.27	3.49	1.22	3.52	1.32
	EM	Overall	0.888	3.52	1.03	3.53	0.97	3.52	1.08

2. Revenue standard for future contracts with customers: Seven (7) items were used to measure this variable (Questions from RF1 to RF7). These items were adopted from PKF International Ltd. (2017), which asked respondents to indicate their responses toward measurement and recognition principles in future revenue contracts with customers. These principles also include variable considerations, discounts, refunds, price concessions, performance bonuses or penalties, and collectability from customers. The measure was reported to have validity, and the Cronbach's alpha for the 7 items for the sample was 0.925.

3. Earnings management practices: As shown in Table 3, the third section asked specific questions to measure the dependent variable, which is earnings management. Earnings management "is the act of intentionally influencing the process of financial reporting to obtain some private gain" (Schipper, 1989, p. 92). Five-Likert scale items were used to measure this variable (Questions from EM1 to EM5). These items were developed by Cohen, Dey, and Lys (2008) and Barth, Gómez-Biscarri, Kasznik, and López-Espinosa (2012). The measure was reported to have validity, and the Cronbach's alpha for the 5 items for the sample was 0.888.

It is worth mentioning that this research could be conducted through an alternative method of analysis which is Smart PLS. Smart PLS is considered suitable for conducting such analysis. But the researchers have chosen the OLS regression as the main statistical tool to achieve the objectives of this study.

4. RESULTS

4.1. Descriptive statistics

Table 3 shows the means and standard deviations of the whole sample (n = 304), Jordanian respondents (n = 150), and US respondents (n = 154) on questions asked about the independent and dependent variables. As the results indicate, the mean scores for the two country subgroups are slightly different. The Jordanian sample scored higher means for the independent and dependent variables than the US sample.

For the revenue standard related to existing contracts with customers, the Jordanian sample scored (M = 3.55, SD = 0.93), while the US sample scored (M = 3.34, SD = 1.22). The higher differences were in question *RE3: "Variable considerations have been re-estimated"*, this indicates that there are differences in the treatment of the variable consideration in the revenue contracts during the COVID-19 between the two countries. The lower differences were in question *RE7: "Refunds have been re-estimated"*, this indicates that the treatment of the refunds in the revenue contracts during the COVID-19 are close in the two countries.

In terms of the revenue standard related to future contracts with customers, the Jordanian sample scored (M = 3.55, SD = 0.93), while the US sample scored (M = 3.43, SD = 1.15). The higher differences were in question *RF5: "Contracts will include price concessions"*, indicating that the Jordanian sample is able to provide more price concessions in the revenue contracts during the COVID-19 than the US sample, which could be referred to the different economic conditions. There were no differences in question *RF4: "Contracts will include refunds"*, this indicates that the treatment of the refunds in the revenue contracts during the COVID-19 remains close in the two countries, the same as in existing contracts.

The earnings management mean was very close for both samples. The Jordanian sample scored (M = 3.53, SD = 0.97), while the US sample scored (M = 3.52, SD = 1.08). For the individual questions, the mean results are very close, indicating that the two samples have approximately the same opinions.

4.2. Univariate analysis

One objective of this study is to test whether the IFRS practices differ from the GAAP practices towards their actions with the existing and future revenue contracts with customers and towards the earnings management procedures. To test the related hypotheses ($H1_0$, $H2_0$, and $H3_0$), independent samples t-test was conducted and the results are shown in Table 4. For the existing revenue contracts with customers, the test revealed that there was not a significant difference in the scores for the IFRS practices (M = 3.55, SD = 0.93) and GAAP practices (M = 3.34, SD = 1.22);

t (285.367) = -1.688, p = 0.093. These results suggest that the IFRS and GAAP practices towards the existing revenue contracts with customers are the same. This result supports $H1_0$.

In addition, the test for the future revenue contracts with customers revealed that there was not a significant difference in the scores for the IFRS practices (M = 3.55, SD = 0.93) and the GAAP practices (M = 3.42, SD = 1.14); t (302) = -1.062, p = 0.289. Again, these results suggest that the IFRS and GAAP practices towards future revenue contracts with customers are the same. This result supports $H2_0$.

Table 4. Independent samples t-test results

Variable		Levene's test for equality of variances		t-test for equality of means				
		F	Sig.	t	df	Sig. (2-tailed)	Mean difference	Std. error difference
$RevStd_i^{Ex}$	Equal variance assumed	13.006	0.000	-1.682	302	0.094	-0.2092	0.1244
	Equal variance not assumed			-1.688	285.367	0.093	-0.2092	0.1239
$RevStd_i^{Fu}$	Equal variance assumed	6.796	0.010	-1.062	302	0.289	-0.1275	0.1200
	Equal variance not assumed			-1.065	293.095	0.288	-0.1275	0.1197
EM_i	Equal variance assumed	2.818	0.094	-0.094	302	0.925	-0.0111	0.1180
	Equal variance not assumed			-0.094	299.815	0.925	-0.0111	0.1179

The test for earnings management revealed that there was not a significant difference in the scores for the IFRS practices (M = 3.53, SD = 0.97) and the GAAP practices (M = 3.52, SD = 1.08); t (302) = -0.094, p = 0.925. The results suggest that the IFRS and GAAP practices towards earnings management are the same. This result supports $H3_0$.

4.3. Multivariate analysis

OLS regression was employed to test the effect of using revenue standards in IFRS and GAAP as a tool to manage earnings during the COVID–19 pandemic.

Initially, as shown in Table 5, the correlation coefficient between the independent variables was positively high (0.821) but does not reveal a multicollinearity problem. "This finding indicates that the variables are suitably correlated with the dependent variable through multiple regressions to be undertaken reliably for examination" (Yassin, 2017, p. 545).

Table 5. Correlation matrix of variables

Variable	$RevStd_i^{Ex}$	$RevStd_i^{Fu}$	EM_i
$RevStd_i^{Ex}$	1	0.821**	0.698**
$RevStd_i^{Fu}$		1	0.758**
EM_i			1

*Note: * Significant at (p ≤ 0.05); ** Significant at (p ≤ 0.01).*

Table 6 showed that, among the three models, the VIF values are below 10. This diagnostic procedure assures a previous result that indicates the absence of multicollinearity problem. In addition, the Durbin-Watson statistic among the three models was around 2, indicating that there was no autocorrelation detected in the sample.

Table 6. OLS regression results

Model	(1)	(2)	(3)
Variable	All	Jordan	The USA
(Constant)	0.823***	0.313	0.874***
	(6.107)	(1.650)	(3.430)
$RevStd_i^{Ex}$	0.232***	0.409***	0.057
	(3.599)	(5.357)	(0.508)
$RevStd_i^{Fu}$	0.567***	0.460***	0.618***
	(8.807)	(6.031)	(5.514)
R-squared	0.589	0.670	0.437
Durbin-Watson	2.030	1.937	2.046
F-value	218.194***	152.319***	60.330***
VIF	3.061	2.628	3.412
Number of obs.	304	150	154

*Notes: *** Significant at (p ≤ 0.01); ** Significant at (p ≤ 0.05); * Significant at (p ≤ 0.1). T-statistic is between brackets.*

The results of the OLS regression model are reported in Table 6. Columns 1–3 show the results of the whole sample, the Jordanian sample, and the US sample, respectively.

Column 1 shows the results of the OLS estimation for the whole responses which classifies the model as statistically significant (at $p \leq 0.01$). These results indicate that the respondents use the practices allowed in the revenue standards in both IFRS and GAAP to practice earnings management during the COVID-19 pandemic, thus rejecting $H4_0$ and $H5_0$ and supporting the alternative hypotheses. Using the practices allowed in the revenue standards for the existing contracts with customers is statistically significant (at $p \leq 0.01$), which rejects $H4_0$, as well as the future contracts with customers, which rejects $H5_0$. The R-squared value indicates that the revenue standards practices explained approximately 59% of variances in earnings management.

Column 2 shows the results of the OLS regression analysis for the Jordanian respondents only, who represent the IFRS practices that could predict earnings management. It is clear that the model is statistically significant (at $p \leq 0.01$). Again, these results indicate that the respondents

use the practices allowed in the revenue standards in IFRS to practice earnings management during the COVID-19 pandemic, thus rejecting $H4a_0$ and $H5a_0$ and accepting the alternative hypotheses. The practices for the existing and future contracts are also statistically significant (at $p \leq 0.01$). The R-squared value indicates that the revenue standards practices explained approximately 67% of variances in earnings management, indicating a higher explanatory power for the Jordanian sample than the whole sample.

Column 3 represents the results of the OLS regression analysis for the US respondents, who represent the GAAP practices that could affect earnings management. The model is statistically significant (at $p \leq 0.01$) which indicates that the respondents use the practices allowed in the revenue standards in GAAP to practice earnings management during the COVID-19 pandemic. The paradox is, while the practices for the future contracts are statistically significant (at $p \leq 0.01$), the practices for existing contracts are insignificant (at $p \leq 0.01$). This inconsistency can be explained as, despite not dealing with current contracts, there is a tendency and proactive procedures for future contracts. These results reject $H5b_0$ but support $H4b_0$. The R-squared value indicates that the revenue standards practices explained approximately 44% of variances in earnings management, indicating a lower explanatory power for the US sample than the Jordanian and the whole sample.

On one hand, these previous findings support the finding of Azizah (2021), Serdarević and Muratović-Dedić (2021), Xiao and Xi (2021), Haggenmüller (2019), Fernandes (2019), Toumeh and Yahya (2019), Tutino et al. (2019), Zha Giedt (2017), and Rathke et al. (2016). On the other hand, the findings of this study contradict the findings of Napier and Stadler (2020), Fuad and Wijanarto (2017), Rahmaningtyas and Mita (2017), Dewi and Herusetya (2016), Santy, Tawakkal, and Pontoh (2016), Cai et al. (2012), and Rudra and Bhattacharjee (2012).

5. DISCUSSION

The Revenue from Contracts with Customers standard was issued as a result of joint efforts between the IASB and the FASB. This standard has significantly inhibited the use of revenues for earnings management purposes (Napier & Stadler, 2020).

The COVID-19 pandemic had caused a variety of threats in different economic and social aspects of life (Walmsley, Rose, & Wei, 2020). These threats had promoted firms to use the revenue standard as a tool to practice earnings management.

This study aimed at testing the role of the Revenue from Contracts with Customers standard in affecting the practice of earnings management particularly under the impact of the COVID-19 pandemic in two different contexts: Jordan as a developing country that applies IFRS and the USA as a developed country that applies GAAP. To the knowledge of the researchers, this is the first study that compares the viewpoints of IFRS and GAAP in using the Revenue from Contracts with Customers accounting standard as a tool to manage earnings. This is caused by the flexibility given to

managers in using their judgment to face the COVID-19 pandemic, while the most important role of the Revenue from Contracts with Customers standard was to limit the practices of earnings management. This contradiction was a motivation to conduct this study.

6. CONCLUSION

The results of the univariate analysis revealed that the IFRS and GAAP practices towards the existing and future revenue contracts with customers and the earnings management procedures are the same, indicating that the users of the different standards use the same practices.

The OLS regression was employed to test the effect of using revenue standards in IFRS and GAAP as a tool to manage earnings during the COVID-19 pandemic. The OLS results suggest that earnings management is predicted by the practices in existing and future contracts with customers for the whole sample. The same results were achieved for the IFRS users. As for the GAAP users, the results were partially different. Their results suggest that earnings management is predicted by the practices in the future contracts with customers, but not the existing contracts with customers. This inconsistency indicates that IFRS users deal with the existing and future contracts with customers, which reflects a conservative level in dealing with contracts. While GAAP users were less conservative, as they proactively treat the future contracts, but did not treat the existing contracts in the same way.

Further research could extend this work by using Revenue from Contracts with Customers standard as a tool to manage earnings in a way to keep the business going. The study could be expanded to include different contexts that use the same set of standards.

Overall, the results provide empirical evidence for policymakers and regulators to rethink the flexibility given to managers to deal with revenue contracts, which in turn, are used to manage earnings.

In addition, managers need to deeply understand the variable considerations, discounts, refunds, price concessions, and performance bonuses or penalties in the revenue contracts and how to use them to efficiently manage the existing as well as future contracts.

Similar to any academic research, this study suffers from certain limitations, and as such the findings of the study should be evaluated in light of those limitations. However, these limitations also provide opportunities for further research in this area.

This study is conducted on the Jordanian and American environment only, so caution should be exercised in generalizing the findings of this study.

This study aimed at testing the role of Revenue from Contracts with Customers standard in affecting the practice of earnings management particularly under the impact of the COVID-19 pandemic in two different contexts: Jordan as a developing country that applies IFRS and the USA as a developed country that applies GAAP, and the results of this research could be attributed to other factors affecting revenues from customers, so additional research should be done in this field.

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