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Gehan A. Mousa, Abdelmohsen M. Desoky, Mohamed Yassin

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Related party transactions, earnings management and governance mechanism in emerging markets: the case of GCC countries

Gehan A. Mousa

Accounting Department,
Benha University,
P.O. Box 13518, Benha, Egypt
Email: gehan.mohamed@fcom.bu.edu.eg

Abdelmohsen M. Desoky*

Accounting Department,
University of Bahrain,
P.O. Box 32028, Bahrain
Email: adesoky@uob.edu.bh
*Corresponding author

Mohamed Yassin

Accounting Department,
University of Bahrain,
P.O. Box 32028, Bahrain
and
Tanta University, Egypt
Email: myassin@uob.edu.bh

Abstract: The main purpose of this study is to examine the impact of earnings management (EM) and some governance mechanisms on related party transactions (RPTs) of listed firms in four emerging stock markets, which are members of the Gulf Cooperation Council (GCC). A sample of 454 firm-year observations is used during a four-year period (2016–2019). Four models of hierarchical multiple regression (HMR) are performed to regress five independent variables (firm EM, AC independence, the number of AC meetings, AC size and EXQ) on RPTs which are represented by two main transactions (purchases of goods from RP and sales of goods to RP). Linear HMR regression models indicate that only two independent variables (firm EM and EXQ) are significantly explaining both dependent variables of RPTs, and they are not explained by any AC independent variable. Findings of this study suggest that the mere presence of RPTs does not necessarily suggest that firms' management engage in greater earnings management. This study may afford additional valued insights on factors affecting RPTs.

Keywords: related party transactions; earnings management; audit committee attributes; external audit quality.

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Biographical notes: Gehan A. Mousa obtained her PhD from the Business School, Durham University, UK. She is a Professor of Accounting at Benha University, Egypt. Her research interests are auditing, financial accounting, environmental accounting, corporate disclosures and corporate governance.

Abdelmohsen M. Desoky obtained his PhD in Accounting from the University of Hull, England. He is a Professor of Accounting at the South Valley University, Egypt, and currently working at University of Bahrain, Kingdom of Bahrain. His research interests are financial reporting, accounting standard setting, corporate governance and IFRS.

Mohamed Yassin is an Assistant Professor at Accounting Department, University of Bahrain, and is also affiliated with Tanta University, Egypt. He obtained his PhD from University of Essex, UK and worked (FT and P/T) in many universities in UK including Westminster University, University of Essex, University of East London, Queen Mary – University of London. His research interests include organisational accounting change, management accounting change and environmental accounting.

1 Introduction

“RPTs are transactions between the firm and a party that is related either as a subsidiary, associate, principal owners, officers, or directors” [Gordon et al., (2007, p.83)]. A number of studies (Berkman et al., 2009; Cheng and Leung, 2014; Md Nor and Ismail, 2017) have indicated RPTs are one of the factors behind the financial scandals in different countries such as in Malaysia ‘Transmile Group Berhad’, in India ‘Satyam Computers Ltd’ and in Indonesia ‘Asia Pulp and Paper’. The accounting literature has documented that RPTs are employed through EM activities where controlling stockholders utilise RPTs to get personal benefits at the expense of minority stockholders (Dow and McGuire, 2009; Lo and Wong, 2011). For instance, Aharony et al. (2010) found that before initial public offering (IPO) some firms involved in RPT ‘Sales of goods or services’ to control earnings up and after a period of IPO these firms transfer the parent company benefits by tunnelling.

Consequently, the accounting literature stimulates the search for tools that can minimise or mitigate the negative effects of RPTs. It offers governance mechanisms (GM) like AC attributes and external audit quality (EXQ) as tools to deal with this problem. The literature argues that the efficiency of AC and EXQ could perform a crucial role to increase the quality of financial reports through reducing the opportunity of manipulations such as EM or misuse of RPTs (Carcello and Neal, 2003; Gordon et al., 2007; Chien and Hsu, 2010; Wahab et al., 2011; Khlif and Samaha, 2016; Sellami and Fendri, 2017; Habib et al., 2017; Agyei-Mensah, 2019; Ghosh and Anupam De, 2020). Furthermore, in France, Makris et al. (2021) provided evidence that corporate financial health plays a vital role and has a strong influence on good financial performance and

economic growth. The above discussion provides the motivation of the current study. We use a sample of listed firms in four GCC countries including Kingdom of Bahrain, Kingdom of Saudi Arabia (KSA), State of Kuwait and United Arab Emirates (UAE) to examine the association between RPTs and five independent variables namely firm EM, AC attributes and EXQ.

The current study has many contributions. First, it addresses the relationship between two major RPTs (Purchases of goods from RP and Sales of goods to RP) and EM which they have a decisive impact on the future of business. In addition, the increase of controversy surrounding these variables in accounting literature. Therefore, our study has a valuable contribution of literature in this stream, especially it focuses on a sample from GCC countries as an example of emerging markets, which are characterised by the scarcity of studies in this area. Second, our study examines the relationship between RPTs and other critical issues such as AC attributes and EXQ. To the researchers' best knowledge, in GCC area there is a very limited research examining the area of RPTs. For instance, Desoky et al. (2020) conducted a research and used firms listed in some GCC countries to explore the impact of ownership concentration and features of board of directors on RPTs. To our best knowledge, this research could be the first to examine the impact of EM and internal GM on RPTs. Third, findings of our study are expected to provide benefits to different decision makers in countries included in the study sample and countries with similar economic and environmental conditions. Fourth, the current study provides a significant starting point for similar studies in other developing countries.

The current research consists of 6 sections including section 2 shows the theoretical arguments on the interpretation of RPTs. Section 3 provides related literature review and hypotheses formulation. Section 4 provides the research methods (sample, data collection, and the definitions of the study's variables). Section 5 shows findings and discussion. Finally, conclusions are presented in section 6.

2 RPTs as a tool of tunnelling versus propping

The accounting literature has numerous studies on the interpretation of RPTs. These studies offered two opposing views. The first view is based on tunnelling hypothesis or the hypothesis of 'conflict-of-interest' which is supported by the theory of agency (Jensen and Meckling, 1976). The term "tunnelling" was introduced in literature by Johnston et al. (2000) who described the case that controlling shareholders or corporate managers when use their power as a tool for firm expropriation. They can transfer firm resources by RPTs through tunnelling which can impact negatively on the interest of minority stockholders (Berkman et al., 2009; Jiang et al., 2010).

Different studies have offered evidence on the controlling stockholders can extract personal benefits using their power to expropriate the interests of minority stockholders through RPTs (Lo et al., 2009; Cheng and Leung, 2014). In China, Jiang et al. (2008) reported that controlling stockholders conduct RPTs namely, internal loans to extract funds from the firm which impact negatively on future firm performance and may lead to delist the firm. Another research performed by Jiang et al. (2010) in the same country, China, provided evidence on tunnelling hypothesis. The authors found that the external auditors' role is diminished, governance and the legal system are weakened, which negatively affecting the protection of minority interests. In the same line, Zhang and

Huang (2013) provided signal on conflicts of interest between minority and controlling stockholders which led to reduce the value of the firm by listed companies in Hong Kong.

The second hypothesis on RPTs is propping up which is supported by efficient transactions theory. "Propping-up" is defined by Friedman et al. (2003, p.732) as "the negative of tunnelling". This hypothesis argues that RPTs can impact positively on the firm because they can provide several benefits to the firm (Friedman, et al. 2003; Fan and Goyal, 2006). Many studies argued that controlling stockholders use RPTs for EM and propping-up such as increase net income for their firms to avoid delisted (Jian and Wong, 2010, Lo et al., 2010; Peng et al., 2011). Mallin (2007, p.16) pointed out that "the firm derives economic benefits from performing certain transactions internally rather than with external parties". For example it was reported by Jian and Wong (2010) that RPTs (sales transactions) are used by controlling stockholders in Chinese firms to prop up earnings then, after ending this process, the sales proceeds back to controlling shareholders. Aghion et al. (2006) argued that RPTs can help firms in two different ways. First, RPTs can reduce the cost of transactions which help in achieving competitive advantages of the firm especially if the firm operates in competitive industries. Second, they can enhance the firm's innovation and development.

Other studies have suggested that related treatments have a dual effect sometimes. For example, In China, Cheung et al. (2009) found that RPTs used to prop up (in 2001 and 2002) while, in other years of their study, RPTs used to tunnel the interest of minority shareholders. Another study in the same country was conducted by Peng et al. (2011) who reported a similar conclusion on RPTs. The authors found evidence on RPTs might be employed for propping up or tunnelling based on various circumstances.

3 Related literature and hypotheses formulation

Since the aim of the current study is to investigate the relationship between firm EM, AC attributes and the EXQ from one side and RPTs from the other. The relevant literature has been discussed as follows:

3.1 RPTs and EM

Several studies have discussed the motivations of RPTs, and EM was recognised as one of these motivations. Firms may use RPTs to manipulate its reported income. For example, a firm could make some sales to its related firms to boost up its income. In China, Ming and Wong (2003) examined the probability of EM using RPT sales in a sample of listed firms. Further, circumstantial evidence like Enron shows the usage of RPTs with specific purpose entities by the firm's chief financial officer in order to camouflage some debts and create fictitious earnings (Kohlbeck and Mayhew 2010). Chen et al. (2009) pointed out that RPTs may be seen as a portfolio for EM tools which contains both cash and accrual based. An evidence on using RPTs such as sales, mortgages, leases, loans and guarantees, in tunneling activities was provided by Chen et al. (2009) who found that RPTs significantly negatively affect firm performance because of unfair use of RPTs in EM purposes where Chinese listed companies are controlled by related parties. Similar conclusion was provided by Huyghebaert and Wang (2010) who found that controlling stockholders use some sorts of RPTs including "Sales and purchases of goods" and "Services through normal operations" to expropriate

minority shareholders consequently, such manipulation becomes difficult to trace. Jian and Wong (2003) tested the association between RPTs and EM by comparing two types of firms. Whereas Jian and Wong (2010) reported that listed firm in China engage in abnormal related sales to prop up their earnings.

Previous empirical research on the relationship between RPTs and EM have revealed varied results. For instance, some studies have reported a positive association between RPTs and EM such as Gordon and Henry (2005) and Kohlbeck and Mayhew (2017) in the USA; Lee et al. (2016) in South Korea; Cheung et al. (2009) in Hong Kong; and Thomas et al. (2004) in Japan. In contrast, in Greece, El-Helaly (2016) used a sample of 84 companies for the period (2009–2011) to explore the relationship between RPTs and the quality of accounting. His findings did not support the argument that firms with substantial RPTs demonstrate more EM compared to other firms which are not practicing RPTs. Based on previous discussion, our study expects a positive relationship between RPTs and EM. Therefore, the first research hypothesis is:

H1 There is a positive relationship between EM and RPTs.

3.2 RPTs and AC attributes

A stream of RPTs literature has offered studies which observe the association between RPTs and AC attributes. AC is seen as a tool to mitigate the negative impact of RPTs on firm's value and the interest of stockholders especially the minority. For example, in South Africa, Sellami and Fendri (2017) investigated the association between AC attributes and RPT disclosure using 120 non-financial firms listed from 2012–2014. The main finding of their study revealed that AC independence and the existence of financial expertise have a significant positive effect on RPT disclosure while, the other two characteristics of AC have no effect. The current study has considered the relationship between RPTs and four features of AC namely, (AC independence, the number of AC meetings, AC with financial expertise, and AC size). The relevant prior studies have provided as follows:

3.2.1 RPTs and AC independence

Previous research indicated that the independence of AC has a positive impact on the quality of financial reporting in general (Carcello and Neal, 2003; Chien and Hsu, 2010). While, AC has a negative effect on the occurrence of restatements' financial reporting (Abbott et al., 2004). Consequently, AC independence plays a critical role regarding RPTs (Nekhili and Cherif, 2011). For example, Agyei-Mensah (2019) concluded that RPT disclosure is affected by AC independence. Abbott et al. (2004) argued that AC independence has many benefits such as an increasing the effectiveness of AC, reducing the opportunities of controlling owners or managers to expropriate company's resources and use them for private benefits at the expense of minority stockholders. On the contrary, other empirical studies such as Abdullah et al. (2016) and Sellami and Fendri (2017) concluded a positive relationship between AC independence and RPT disclosure. Therefore, we expect a negative association between AC independence and RPTs. Accordingly, the second research hypothesis is:

H2 There is a negative relationship between AC independence and RPTs.

3.2.2 RPTs and the number of AC meetings

Agyei-Mensah (2019) argued that the existence of AC within the company enhances an effective communication between board members, internal and external auditors consequently, more meetings for these parts provide the opportunity to deal with firm problems (Abbott et al. 2004) and enhance the quality of internal control (Khlif and Samaha, 2016). However, the literature provided mixed results on the correlation between the number of AC meeting from one side and the quality of financial reporting and RPTs from the other. For example, Kent et al. (2010) found that the number of AC meeting has a significant impact on reducing the level of EM while, Baxter and Cotter (2009) found an insignificant relationship between the two variables. While Sellami and Fendri (2017) reported that there is no relationship between the number of AC meeting and RPT disclosure. Such a finding is not in line with the results of Allegrini and Greco (2013) who found a significant positive association between the level of corporate disclosure and AC number of meetings. Most previous studies argue that the greater the number of AC meetings, the greater the occasion to monitor management and controlling owners' activities and thus can reduce or mitigate the negative effects of RPTs. Consequently, we expect a negative association between the number of AC meeting and RPTs. Thus, the third research hypothesis is.

H3 There is a negative relationship between the number of AC meeting and RPTs.

3.2.3 RPTs and AC size

AC size refers to members' number within AC. Mohamad-Nor et al. (2010) found that AC with large members, gives the opportunity to analyse financial reports and detect any defects or errors and then can be remedied. In this line, Nelson and Jamil (2011a) showed a positive correlation between AC size and the quality of financial reports. While, Nelson and Shukeri (2011b) found that AC size is negatively associated with timeliness of financial reporting. Finally, Sellami and Fendri (2017) reported non-significant correlation between AC size and RPT disclosure. Since we have mixed findings from prior studies, the fourth research hypothesis is.

H4 There is a significant relationship between AC size and RPTs.

3.3 RPTs and EXQ

Today, the audit of RPTs is a vital process in auditing firms' financial statements because they have a critical influence on firm's performance, value, and the interest of stockholders. "Independent external auditor is seen as an effective mechanism to mitigate the negative effects of RPTs" [Rahmat (2013, p.76)] similar to Chien and Hsu (2010) who found that Big-CPA firms can play moderating roles in RPTs. In the same line, the results of Cheung et al. (2006) revealed that big audit firms pay more attention to the interests of minority stockholders and auditing RPTs comparing to small audit firms. Bennouri et al. (2015), in France, compared between firms that audited by the Big 4 audit firms and firms that audited by non-Big 4 audit firms. Their findings revealed that firms that audited by Big 4 audit firms have a smaller number of RPTs comparing to non-Big 4 firms.

In Indonesia, Habib et al. (2017) showed that firms that perform RPTs with tunneling activities are not likely to hire Big 4 audit firms in contrast firms that employ RPTs without tunneling incentives prefer to appoint a Big 4 audit firm to obtain financial reporting quality. Another study in the same country conducted by Habib and Muhammadiyah (2018) who reported that Big 4 audit firms identify the risks of RPTs and spend more time in tracing RPTs. It can be noted that the above discussion suggests a negative connection between EXQ and RPTs. However, Gordon et al. (2007) and Wahab et al. (2011) argued that firms wishing to conduct RPTs may hire Big-CPA firms to legitimise their activities which explains the finding of Gan (2017) who found a positive correlation between the two variables. Finally, Louwers et al. (2008) conducted an empirical analysis on the auditing process of RPTs focusing on the audit firm profile. The authors found that although there are recommendations for RPTs' auditing by professional bodies, such auditing is a complex process in practice, including many steps, starting with identifying RPTs, and then, classifying and tracing their effect. Based on above arguments, the fifth research hypothesis is:

H5 There is a significant relationship between EXQ and RPTs.

Table 1 Details of the sample

| | <i>Bah.</i> | <i>KSA</i> | <i>Kuw.</i> | <i>UAE</i> | <i>Total</i> |
|---------------------------------|-------------|------------|-------------|------------|--------------|
| • Listed firms in each country | 43 | 194 | 175 | 140 | 552 |
| • Firms selected | 17 | 86 | 32 | 38 | 173 |
| • Firms selected (over 4 years) | 68 | 344 | 128 | 152 | 692 |
| • Firms excluded (over 4 years) | 20 | 103 | 55 | 60 | 238 |
| • Firms included (over 4 years) | 48 | 241 | 73 | 92 | 454 |
| • Percentage of firms selected | 10.6% | 53.1% | 16.1% | 20.2% | 100% |

Notes: 1. Listed financial institutions were excluded; 2. % of firms selected over 4 years from every GCC country to total number of firms in our sample (454 firms); 3. A full list of the sampled firms can be provided upon request. 4. Bah. = Bahrain, Kuw. = Kuwait.

4 Research methods

4.1 The sample selection

This empirical examination is established on a sample of firms listed in four emerging markets in the GCC area including 'Bahrain, KSA, Kuwait and UAE'. A total of 173 firms is examined over four financial period (2016–2019) representing 454 firm-year observations. Stock market capitalisation of the four GCC countries represents an average of about 82% of the total GCC countries' market capitalisation during the four financial periods. This gives a sensible reasoning for selecting these countries in representing GCC countries. The following table provides details on the sample and the allocation of selected firms over the four countries.

This sample is spread over five sectors containing:

- 1 industrial
- 2 telecommunication and technology
- 3 energy
- 4 basic material and construction
- 5 others.

Only active firms in each stock market were strictly selected for this study. As clear in Table 1, the overall number of selected listed firms is 552 from the four countries (43 from Bahrain, 194 from KSA, 175 from Kuwait and 140 from UAE). It was decided to exclude financial institutions from our sample since they are imposed to various regulations set by the Central Bank in each country. A firm would exercise at minimum one RPT action in the financial year is a condition to be contained in the sample. Consequently, 238 firms are eliminated from the examination resulting in our final sample of 454 firm-year observations under investigation across the four financial years. The final number of firm-year observation over the four years is 48 from Bahrain, 241 from KSA, 73 from Kuwait and 92 from UAE. The authors investigated firms' annual reports and websites to manually gain the data needed for variables of the study especially those of related party transactions.

4.2 The estimation of the dependent variable (RPTs)

Previous studies in this area of research measured RPTs employing various proxies. For example, Desoky et al. (2020); Cheung et al. (2006, 2009) and Gordon and Henry (2005) applied the dollar amount of specific types or all RPTs. Moreover, the total amounts of RPTs divided by firm's total assets is used by other studies (Md Nor and Ismail, 2017).

Various categories of RPTs were utilised by several studies to develop various models. For instance, Desoky et al. (2020) used three RPTs "key management compensation, due from RP and Due to RP". Kohlbeck and Mayhew (2010) used four RPTs 'sale of goods and services, purchase of good and services, key management loans and due from RP'. In addition, five RPTs including 'asset sales, asset acquisitions, equity sales, purchase of goods and services and sales of good and services' were used by Cheung et al. (2006). While four RPTs including 'purchases with RP, sales with RP, due from RP and due to RP' were used by Ullah and Shah (2015). Moreover, Nekhili and Cherif (2011) investigated four RPTs including 'sale of goods and services to RP, purchase of goods and services from RP, guarantees on RP, and management compensation'. This research has implemented a common method to recognise sorts of RPTs built on RPTs instances given by the "international accounting standard" (IAS 24). More precisely, our empirical examination utilised two main types of RPTs which are: Purchases of goods from RP (*TRANS1*) and Sales of goods to RP (*TRANS2*). "purchases of goods from RP" and "sales of goods to RP" normally occur as portion of regular operations of the firm's business and are considered as the most common types of RPTs (Fang et al., 2018). Values of these two dependent variables (RPTs) are measured as the total amount of each variable which is collected from firms' annual reports.

4.3 Variables estimations

4.3.1 The estimation of EM

The Jones' (1991) model is the highly utilised model to evaluate EM in the related accounting literature. In 1995, Dechow et al. modified the Jones' (1991) model by way of considering the amendments in accounts receivables instead of amendments in the revenues (Mousa and Desoky, 2019). Dechow et al. (1995) argued that this modified to avoid any conjectured tendency of the Jones' (1991) model when assessing discretionary accruals (DACC). DACC with error when discretion is calculated over revenues. Dechow et al. (1995) argued that to avoid bias which may happen when considering the change in revenue the change in accounting receivable may overcome this problem.

The modified Jones model by Dechow et al. (1995) is used in this study to measure EM therefore, the absolute value of DACC was estimated and total accruals (TACC) were assessed through regressing of prior periods' yearly amendment in gross 'property, plant, and equipment of firm' (PPEF) and revenues on TACC of firm i at year t . In addition, the change on accounting receivables (RECV) was considered to adjust the change in revenue as shown in the following equations:

The disparity between cash flows from operations ($CFLO$) and earnings ($EARN$) and reflects total accruals ($TACC_{it}$) of firm i in the year t as follows:

$$TACC_{it} = EARN - CFLO \quad (1)$$

Then, TACC is entered into a regression against its elements through the following equation:

$$TACC_{it} / TASS_{it} - 1 = a(1 / TASS_{it-1}) + b(\Delta REVN - \Delta RECV) / TAS_{it-1} + c(PPEF / TAS_{it-1}) + e_{it} \quad (2)$$

where:

$TACC_{it}$ total accruals for firm i for year t

TAS_{it-1} lagged total assets

$\Delta REVN_{it}$ revenues of year t minus revenues of firm i in year $t - 1$

$\Delta RECV_{it}$ receivables for firm i in year t minus receivables in year $t - 1$

$PPEF_{it}$ property, plant, and equipment (plant assets) of firm i in gross in year t

e_i the error term (year t for firm i).

It should be noted that we used total assets as the deflator in above equation (2) to mitigate the effect of heteroscedasticity in residuals following many researchers (Kothari et al., 2005 and Mousa and Desoky, 2019). Finally, we calculated DACC based on the amounts of regression coefficients, then normal accrual (NACC) was calculated that is deducted from $TACC_{it}$ for estimating firms' DACC through the following equation:

$$DACC_{it} = TACC_{it} - NACC_{it} \quad (3)$$

4.3.2 Other variables (independent and control)

In addition to the firm's EM, other four independent variables are used in this examination. Three variables are related to AC attributes including the size of AC, the number of AC meeting and independence of AC) and the fourth is EXQ. Prior research showed various relationships between RPTs and independent variables employed in the current study (Jian and Wong, 2003; Thomas et al., 2004; Gordon and Henry, 2005; Chen et al., 2009; Cheung et al., 2009; Abdullah et al., 2016; El-Helaly, 2016; Lee et al., 2016; Habib et al., 2017; Habib and Muhammadi, 2018; Kohlbeck and Mayhew, 2017; Agyei-Mensah, 2019 and Desoky et al., 2020). Furthermore, related studies on RPTs and their association with different variables such as financial performance, firm value, EM, AC, and audit quality controlled the effect of several board and firm factors like board independence, board size, role duality, firm profitability, firm financial leverage, firm size, firm age and firm industry. Accordingly, the current study employs five control variables (board independent, board size, firm profitability, firm size, and firm industry). Table 2 summarises the study's independent and control variables.

Table 2 Variables' definitions

| <i>Variables</i> | <i>Symbol</i> | <i>Predicted sign</i> | <i>Definition</i> |
|--------------------------|---------------|-----------------------|---|
| Independent: | | | |
| Firm EM | FIRMEM | + | The Jones Model (Jones, 1991) |
| AC independence | ACINDE | - | The percentage of external members in AC to total members |
| Number of AC meetings | ACMEET | - | Number of meetings conducted by AC |
| AC size | ACSIZE | + or - | Number of AC members |
| External auditor quality | EXAUDQ | + or - | Equal to 1 if the audit firm is a Big 4 and 0 otherwise. |
| Control: | | | |
| Board size | BOSIZE | + | Number of the board of directors in the firm |
| Board independence | BOINDE | - | Number of independent board members |
| Firm profitability | FIROE | + or - | Return on equity of the firm. |
| Firm size | FISIZE | + or - | The natural logarithm of firm's total assets. |
| Firm industry | FINDUS | + or - | The classification of each stock market. |

Notes: 1 Data needed for these variables is covering four financial years, 2016, 2017, 2018 and 2019.

2 Variables expected signs are built on the projected impact on RPT.

3 Values for the four GCC countries are in US Dollar.

4.4 Data analysis

In addition to descriptive statistics, the current study employs Pearson correlation (the univariate analysis) and the multivariate hierarchical multiple regression (HMR). The use of linear HMR regression enables the authors to eliminate any potential impact of five control variables (*BOSIZE*, *BOINDE*, *FIROE*, *FISIZE* and *FINDUS*). In linear HMR

regression, independent and control variables were tested by means of two steps where control variables are entered in the first step followed by independent variables which were entered in the second step. Two equations of regression are utilised for both dependent variables (*TRANS1* and *TRANS2*) as follows:

Models (1) & (2)

$$Y(\text{TRANS1}) = \beta_0 + \beta_1 \text{BOSIZE} + \beta_2 \text{BOINDE} + \beta_3 \text{FIROE} + \beta_4 \text{FISIZE} + \beta_5 \text{FINDUS} + \varepsilon \quad \text{Model (1)}$$

$$Y(\text{TRANS1}) = \beta_0 + \beta_1 \text{BOSIZE} + \beta_2 \text{BOINDE} + \beta_3 \text{FIROE} + \beta_4 \text{FISIZE} + \beta_5 \text{FINDUS} + \beta_6 \text{FIRMEM} + \beta_7 \text{ACINDE} + \beta_8 \text{ACMEET} + \beta_9 \text{ACSIZE} + \beta_{10} \text{EXAUDQ} + \varepsilon \quad \text{Model (2)}$$

Models (3) & (4)

$$Y(\text{TRANS2}) = \beta_0 + \beta_1 \text{BOSIZE} + \beta_2 \text{BOINDE} + \beta_3 \text{FIROE} + \beta_4 \text{FISIZE} + \beta_5 \text{FINDUS} + \varepsilon \quad \text{Model (3)}$$

$$Y(\text{TRANS2}) = \beta_0 + \beta_1 \text{BOSIZE} + \beta_2 \text{BOINDE} + \beta_3 \text{FIROE} + \beta_4 \text{FISIZE} + \beta_5 \text{FINDUS} + \beta_6 \text{FIRMEM} + \beta_7 \text{ACINDE} + \beta_8 \text{ACMEET} + \beta_9 \text{ACSIZE} + \beta_{10} \text{EXAUDQ} + \varepsilon \quad \text{Model (4)}$$

where: Y is RPTs variables, *TRANS1* and *TRANS2*; β_0 is a constant; β_i , $i=1, \dots, 10$, are parameters, while ε is error term.

The first and the third models include both RPTs variables, *TRANS1* and *TRANS2*, and controlling for five variables, whereas Models (2) and (4) involve *TRANS1* and *TRANS2* with all control and independent variables. Moreover, the current investigation conducted regression diagnostics to evaluate the chance for multicollinearity which may possibly happen amongst two or more independent variables. Multicollinearity was not a problem in this study; consequently, it is not being a considerable worry in the current study.

5 Findings

5.1 Descriptive statistics

Descriptive statistics for all variables are presented in Table 3. Throughout the four GCC countries included in this study with 454 listed firms as a total over the four years, the max. amount of ‘Purchases of goods from RP’ (*TRANS1*) is \$10,312.02 million and a mean score is \$143.55 million with a S.D. of \$873.42 million. Regarding ‘Sales of goods to RP’ (*TRANS2*), Table 3 shows that \$12,205.02 million is the max. amount and a mean score with a S.D. of \$239,630,000 and \$1,096,930,000, respectively. The above relatively high figures are justified as our sample contains many of the largest listed firms in the GCC area which have huge records of business (purchases and sales) with their related party firms especially in energy and industrial sectors.

Table 3 Descriptive statistics

| | <i>N</i> | <i>Min.</i> | <i>Max.</i> | <i>Mean</i> | <i>S.D.</i> | |
|------------------------------|----------|---------------------------------|---------------------------|-----------------------------|-------------------------|-----------|
| <i>Dependent variables</i> | | | | | | |
| TRANS1 | 454 | 0 | 10312068927 | 143550008.21 | 873419619.642 | |
| TRANS2 | 454 | 0 | 12205019361 | 239625915.17 | 1096930793.059 | |
| <i>Independent variables</i> | | | | | | |
| FIRMEM | 454 | -0.25226 | 0.87221 | 0.0732933 | 0.17286214 | |
| ACINDE | 454 | 0.25 | 1.00 | 0.6739 | 0.26700 | |
| ACMEET | 454 | 0 | 13 | 4.84 | 1,776 | |
| ACSIZE | 454 | 2 | 6 | 3.51 | 0.74993 | |
| | | <i>(0) Not big 4 audit firm</i> | | <i>(1) Big 4 audit firm</i> | | |
| EXAUDQ | 454 | 176 (39%) | | 278 (61%) | | |
| <i>Control variables</i> | | | | | | |
| BOSIZE | 454 | 5 | 12 | 8.07 | 1,714 | |
| BOINDE | 454 | 0 | 100 | 58.35 | 25,092 | |
| FIROE | 454 | -504.00 | 61.70 | -1.9838 | 51.30650 | |
| FISIZE | 454 | 9,236 | 11,881,755 | 611,185 | 1,625,384 | |
| FINDUS | 454 | (1) Industrial | (2) Tech. and Telecom. | (3) Energy | (4) Const. and basic | (5) Other |
| | | 177 | 29 | 18 | 64 | 166 |

Notes: 1 The above results are built on 454 firms over a four-year period (2016–2019).

2 \$0 is the min. amount for all dependent variable because not every company experiences a RPT in certain years.

3 Table 3 above gives further details on every variable

4 Not big four = 0 and big four = 1.

5 Firm size is measured by (US\$ 000) and the natural logarithm was used in the analysis.

6 S.D. = Standard deviation, Min. = Minimum, and Max. = Maximum.

Moreover, Table 3 shows results on independent and control variables. It shows the average the discretionary accruals (DACC) for the sample over the four years which is about 0.073 with a S.D. of 0.73 and -0.872 and 0.242 as a max. and min. DACC values. These results refer to some practices of EM by firms included in the sample over the study period and may indicate that the practice of EM by sampled listed firms exist, however, the level of EM practice by sampled listed firms is reasonably not high. As regards independent variables on features of AC, Table 3 reveals that 67.39% is the mean score of the independence of AC (ACINDE) with a 25% and 100% as a min. and max. The above result indicates that nearly all AC members in our sample over the four years are independent. About the number of AC meeting, Table 3 shows that 13 and 0 are the max. and min. number of meetings with a mean of 4.84 meetings which are being organised by AC of the selected firms across the period of this study. The table gives the mean size of AC which is 3.51 members while 2 and 6 are the min. and the max., respectively. For the EXQ, it should be noted that 208 (61.0%) of sampled are audited by a big 4 audit firm or a local partner of a big four audit firm, while 133 (39.0%) are audited by local or smaller audit firms.

Concerning control variables, Table 3 shows that board size (BOSIZE) of listed firms included in this study ranges from 5 members as a minimum to 12 members a maximum with a mean of 8.07 members. Board independence (BOINDE) which refers to % of independent to total members of the board varies from 0% as a minimum to 100% as a maximum with 58.35% as a mean score and 25.09% as a standard deviation meaning that above half members of the board in our sample are independent directors. Across the sampled firms over the four years, the maximum firm profitability (FIROE) is about 62% while about -500% is the minimum (FIROE) with a mean score of -1.98% and 51.31% standard deviation. Firm size (FISIZE) of sampled firms ranges from US\$11,881.76 million to US\$9.24 with US\$611.19 million as the mean firm total assets. Table 3 shows that the sample includes a total of 454 listed firms divided over five sectors: 177 industrial, 29 telecommunication and technology, 18 energy, 64 basic material and construction, and 166 other firms.

Descriptive findings on the two variables of RPTs 'Purchases of goods from RP' (*TRANS1*) and 'Sales of goods to RP' (*TRANS2*) and their allocation across the selected 4 countries over the study period are provided in Table 4. Clearly, it shows that listed firms in KSA have the greatest volume of both RPTs over the study period. The results reveal that the highest mean score of the first dependent variable 'Purchases of goods from RP' is about US\$263.863 million for listed firms from KSA followed by listed firms from Kuwait, Bahrain, and UAE respectively. Similarly, the highest mean score of the second dependent variable 'Sales of goods to RP' is about US\$440.773 million for KSA listed firms followed by Kuwaiti listed firms as second and firms from UAE and Bahrain as third and fourth. The above findings are anticipated because Saudi listed firms are ranked as the biggest in size among sampled firms from the four GCC countries. Nonetheless, the results reveal that, for each of the two RPTs over the study period, the minimum amount is 0 which mean that a company or more is not practicing the RPT or is not release such information.

Table 4 The description of RPTs (dependent variables)

| <i>Transactions</i> | <i>Country</i> | <i>No</i> | <i>Mini</i> | <i>Maxi</i> | <i>Ranking</i> | <i>Mean</i> | <i>SD</i> |
|---|----------------|-----------|-------------|-------------|----------------|-------------|--------------|
| Purchases of goods from RP (<i>TRANS1</i>) | Bahrain | 48 | 0 | 131,612 | 2 | 7,360.96 | 22,019.74 |
| | KSA | 241 | 0 | 10,312,069 | 1 | 263,863.19 | 1,187,322.95 |
| | Kuwait | 73 | 0 | 85,067 | 3 | 8,562.23 | 13,630.85 |
| | UAE | 92 | 0 | 71,449 | 4 | 6,599.97 | 11,842.85 |
| Sales of goods to RP (<i>TRANS2</i>) | Bahrain | 48 | 0 | 91,741 | 3 | 15,662.26 | 31,016.92 |
| | KSA | 241 | 0 | 12,205,019 | 1 | 440,773.28 | 1,478,403.75 |
| | Kuwait | 73 | 0 | 85,067 | 4 | 8,562.23 | 13,630.85 |
| | UAE | 92 | 0 | 100,142 | 2 | 13,010.29 | 21,946.30 |

Note: 1. Ranking is based on the mean numbers; 1. All amounts in US\$000.

Table 5 Correlation statistics

| | TRANS1 | TRANS2 | FIRMEM | ACINDE | ACMEET | ACSIZE | EXAUDQ | BOSIZE | BOINDE | FIROE | FISIZE | FINDUS |
|--------|----------------|----------------|----------------|-----------------|-----------------|----------------|----------------|----------------|--------|--------|----------------|--------|
| TRANS1 | 1 | | | | | | | | | | | |
| TRANS2 | 0.941** | 1 | | | | | | | | | | |
| FIRMEM | 0.086 | 0.217* | 1 | | | | | | | | | |
| ACINDE | -0.113* | -0.122* | 0.141** | 1 | | | | | | | | |
| ACMEET | 0.084 | 0.117* | -0.070 | -0.122* | 1 | | | | | | | |
| ACSIZE | 0.160** | 0.241** | 0.016 | -0.195** | 0.124* | 1 | | | | | | |
| EXAUDQ | 0.113* | 0.253** | 0.161** | 0.106* | 0.042 | 0.176** | 1 | | | | | |
| BOSIZE | 0.085 | 0.087 | -0.131* | -0.086 | 0.140** | 0.213** | 0.062 | 1 | | | | |
| BOINDE | -0.008 | -0.023 | -0.097 | 0.447** | -0.152** | -0.003 | 0.247** | -0.066 | 1 | | | |
| FIROE | -0.005 | -0.004 | 0.027 | 0.136* | 0.214** | 0.101 | 0.192** | -0.032 | -0.023 | 1 | | |
| FISIZE | 0.231** | 0.268** | -0.041 | -0.047 | 0.069 | 0.284** | 0.187** | 0.092 | 0.054 | 0.065 | 1 | |
| FINDUS | -0.027 | -0.057 | 0.093 | 0.116* | -0.163** | -0.053 | 0.037 | -0.113* | 0.090 | -0.042 | -0.130* | 1 |

Notes: * Results are sig. at the 0.05% level (two-tailed); ** Results are sig. at the 0.01% level (two-tailed)

1- Bold figures mean significant correlations

2- Coefficients are built on 454 firm year observations (2016-2019 financial years).

5.2 Correlation analysis

Pearson correlation was used to test the relationships among the study variables. Table 5 provides correlation findings and reveals several significant relationships at various levels of significance among dependent RPTs variables and some independent variables. For instance, the first RPTs variable 'Purchases of goods from RP' (*TRANS1*) is significantly associated with three out of five independent variables (AC independence, AC size and EXQ), however, this association is weak (-0.113 , 0.160 and 0.113 respectively). On the other hand, the second RPTs variable 'Sales of goods to RP' (*TRANS2*) is significantly associated with all independent variables with different values. For instance, it is weakly negatively associated with AC independence (-0.122) and weakly positively associated with the number of AC meeting (ACMEET) (0.117). Also, it positively associated 'Firm EM' with a below moderate value of 0.217 ; and positively associated with 'AC size' and 'EXQ' with below moderate values of 0.241 and 0.253 . This finding confirms the hypothesis saying that RPTs are negatively correlated with AC independence, and positively associated with 'AC size' and 'EXQ'. As predicted earlier, the table shows positive association between one variable of RPTs (Sales of goods to RP) and the firm practice of EM. This finding supports the supposition that a positive relationship exists between EM and RPTs. Nevertheless, no significant correlation is noticed between variables of RPTs and most control variables except for 'Firm size' which is positively correlated with both (*TRANS1*) and (*TRANS2*).

Correlation results do not verify any high significant association (exceeds 0.7) amongst the independent variables which means that there is no significant multicollinearity issue in this study. Among independent variables, three (*ACINDE*, *ACSIZE* and *EXAUDQ*) are correlated significantly with the first dependent RPT variable of 'Purchases of goods from RP' (*TRANS1*) and all independent variables are significantly correlated with the second dependent RPT of 'Sales of goods to RP' (*TRANS2*).

5.3 Regression findings

Tables 6 and 7 present results related to the four linear HMR models. The current study employed linear HMR to remove a possible impact of control variables (*BOSIZE*, *BOINDE*, *FIROE*, *FISIZE* and *FINDUS*) and to recognise the independent variable(s) which may provide to the explanation of the two dependent RPTs variables 'Purchases of goods from RP' and 'Sales of goods to RP'. In general, two sets of HMR findings are provided. The first includes both Models, which are related to the first RPTs variable 'Purchases of goods from RP', while the second includes Models 3 and 4 which are related to the second dependent variable 'Sales of goods to RP'. Also, our four HMR models are statistically significant at various values of adjusted R^2 . Our findings somewhat are supporting the correlation findings provided in Table 5. In all models, the value of F is above 1 suggesting that the four models are good models of regression (Field, 2010). Amongst the four models of HMR, Model 4 has the highest adjusted R^2 level of 17.3% (the strongest explanatory power of RPTs).

Table 6 provides HMR findings of Models 1 and 2. Table 6 shows that the first model is significant (0.001 is the p-value with $6,145$ as F-value and a low adjusted R^2 of 6.4%) in the explanation of the first variable of RPTs, 'Purchases of goods from RP'. Also, the second model, Model 2, is significant (0.004 is the p-value of with $4,049$ as F-value of

and a total adjusted R^2 of 8.9%) in the explanation of the RPTs. The second model, Model 2, contains all control and independent variables. Values of R^2 change in both are 8.8% and 5.8% respectively signifying that our five independent variables explain only 5.8% of the first RPTs dependent variable, 'Purchases of goods from RP', when they are added Model 2. Importantly, only two independent variables (*FIRMEM* and *EXAUDQ*) are significantly explaining the 'purchases of goods from RP', however, values of standardised coefficients (Beta) are below moderate of 0.179 and 0.193 respectively. Furthermore, Table 6 shows that all AC independent variables (*ACINDE*, *ACMEET* and *ACSIZE*) are not significantly explaining RPTs of firm listed in GCC stock markets.

Table 6 Regression result for models 1 and 2 (TRANS1)

| | <i>Model (1)</i> | | | <i>Model (2)</i> | | |
|--------------|----------------------|----------------|-------------|----------------------|----------------|-------------|
| | <i>S. Coe (Beta)</i> | <i>t value</i> | <i>Sign</i> | <i>S. Coe (Beta)</i> | <i>t value</i> | <i>Sign</i> |
| (Constant) | | -0.644 | 0.520 | | -0.965 | 0.335 |
| BOSIZE | 0.064 | 1.190 | 0.235 | 0.025 | 0.444 | 0.657 |
| BOINDE | -0.018 | -0.338 | 0.736 | -0.008 | -0.132 | 0.895 |
| FIROE | | | | | | |
| | -0.018 | -0.330 | 0.742 | -0.039 | -0.687 | 0.492 |
| FISIZE | 0.229 | 4,246 | 0.000 | 0.187 | 3,338 | 0.001 |
| FINDUS | 0.011 | 0.211 | 0.833 | 0.026 | 0.469 | 0.639 |
| FIRMEM | | | | 0.179 | 1,397 | 0.043 |
| ACINDE | | | | -0.076 | -1,205 | 0.229 |
| ACMEET | | | | 0.052 | 0.926 | 0.355 |
| ACSIZE | | | | 0.071 | 1,223 | 0.222 |
| EXAUDQ | | | | 0.193 | 1,588 | 0.032 |
| | | <i>Model 1</i> | | <i>Model 2</i> | | |
| R^2 | | 0.088 | | 0.146 | | |
| Adj. R^2 | | 0.064 | | 0.089 | | |
| R^2 change | | 0.088 | | 0.058 | | |
| F value | | 6,145 | | 4,049 | | |
| P value | | 0.001 | | 0.004 | | |

Notes: 1 Models 1 and 2 are built on 454 firm-year observations.

2 Bold coefficients (Beta) are significant.

3 S. Coe. = standardised coefficients.

Table 7 provides HMR results of Models 3 and 4. Like Table 6, it shows that both models are statistically significant in the explanation of the second variable of RPTs which is 'Sales of goods to RP'. Table 7 shows that Model 3 has 0.000 p-value with 8.612 F-value and adjusted R^2 of 6.4% in the explanation of the second RPTs variable, 'Sales of goods to RP'. Similarly, the fourth model has 0.003 p-value with 6,758 F-value and a reasonable adjusted R^2 of 17.3% in explaining RPTs. Model 4 has the highest R^2 change of 12.1% signifying that the five independent variables 12.1% of the second RPTs dependent variable, 'Sales of goods to RP'. Importantly, two independent variables (*FIRMEM* and *EXAUDQ*) are significantly correlated with the second RPTs dependent variable 'Sales of goods from RP' of listed firms in GCC stock market, while other variables are not.

Table 7 Regression result for models 3 and 4 (TRANS2)

| | <i>Model (3)</i> | | | <i>Model (4)</i> | | |
|-----------------------|-----------------------|----------------|-------------|-----------------------|----------------|-------------|
| | <i>S. Coe. (Beta)</i> | <i>t value</i> | <i>Sign</i> | <i>S. Coe. (Beta)</i> | <i>t value</i> | <i>Sign</i> |
| (Constant) | | -0.166 | 0.868 | | -0.977 | 0.329 |
| BOSIZE | 0.057 | 1,077 | 0.282 | 0.002 | 0.041 | 0.967 |
| BOINDE | -0.033 | -0.614 | 0.540 | -0.048 | -0.768 | 0.443 |
| FIROE | -0.020 | -0.388 | 0.698 | -0.061 | -1,103 | 0.271 |
| FISIZE | 0.264 | 4,944 | 0.000 | 0.209 | 3,799 | 0.000 |
| FINDUS | -0.015 | -0.287 | 0.774 | 0.001 | 0.023 | 0.982 |
| FIRMEM | | | | 0.203 | 2,239 | 0.026 |
| ACINDE | | | | -0.052 | -0.832 | 0.406 |
| ACMEET | | | | 0.076 | 1,380 | 0.169 |
| ACSIZE | | | | 0.094 | 1,651 | 0.100 |
| EXAUDQ | | | | 0.242 | 2,494 | 0.013 |
| | | <i>Model 1</i> | | <i>Model 2</i> | | |
| R ² | | 0.077 | | 0.198 | | |
| Adj. R ² | | 0.064 | | 0.173 | | |
| R ² change | | 0.077 | | 0.121 | | |
| F value | | 8,612 | | 6,758 | | |
| P value | | 0.000 | | 0.003 | | |

Notes: 1 Models 3 and 4 are built on 454 firm-year observations.

2 Bold coefficients (Beta) are significant.

3 S. Coe. = standardised coefficients.

Regarding our first independent variable (the firm's EM or FIRMEM), our results (Models 2 and 4) are in line with what was hypothesised in the current study and what was concluded earlier by previous research. For instance, our findings are in line with what was found by Aharony et al. (2010) who reported a link between RPTs (Sales of goods to RP) and firms' EM. Also, our result is in line with several previous studies including Gordon and Henry (2005) and Kohlbeck and Mayhew (2017) in USA, Lee et al. (2016) in South Korea, Cheung et al. (2009) in Hong Kong and Thomas et al. (2004) in Japan who all reported positive relationships between RPTs and EM. On the contrary, the above findings are not consistent with what was reported in Greece by El-Helaly (2016) who did not report any significant association between RPTs and firm EM. However, it should be noted that the current examination suggests that firm's EM is weakly explaining RPTs (a low standardised coefficients (beta) of only 0.179 and 0.203 for the first and the second dependent RPTs variables respectively). Accordingly, our results may not fully support the arguments that firms may use RPTs to directly influence their reported income; and executives and/or board members may engage in RPTs then manage earnings to rationalise (or increase) their perquisites, or possibly to mask the expropriation of a firm's resources. Our result supports the alternative view that RPTs rationally fulfil other economic demands of a company such as the necessity for in-depth firm knowledge and expertise or the necessity for alternate forms of compensations.

Regarding the three AC independent variables (the number of AC meetings, AC size, and independence of AC), Models 2 and 4 show that AC variables are not significantly explaining the dependent RPTs variables. These findings are not consistent with what was hypothesised earlier and what was concluded by previous research. For instance, several studies documented statistically significant impact of AC independence on RPT disclosure (Nekhili and Cherif, 2011; Abdullah et al., 2016; Fendri, 2017; Agyei-Mensah, 2019 and Sellami and Fendri, 2017). However, the current study found that AC independence is not explaining RPTs (very weak and non-significant standardised coefficients (beta) of only -0.076 and -0.052 for the first and the second dependent RPTs variables respectively). Therefore, our findings suggest that there is not association between AC independence and firms' practices of RPTs. Results on the number of AC meeting and AC size are consistent with what was documented by Sellami and Fendri (2017) who reported no significant connotation between the number of AC meeting and AC size from one side and RPT disclosure from the other. These findings do not support the argument that the greater the number of AC meeting and AC size, the greater the chance to monitor management and controlling owners' activities which may mitigate the negative effects of RPTs. Such finding can be explained through propping up hypothesis of RPTs which argues that RPTs can provide many benefits to the firm and managers do not necessarily use them to gain private benefits at the expense of minority or owners.

With respect to the independent variable of EXQ, the HMR Models 2 and 4 show that our findings are in line with what was hypothesised earlier and with findings revealed by previous research. For example, the results support what was concluded by Gordon et al. (2007) and Wahab et al. (2011) who argued that firms wishing to conduct RPTs may hire Big 4 audit firms to legitimise their activities; and by Gan (2017) who found a positive association between the two variables. However, the findings conflict with what was reported in France by Bennouri et al. (2015) who argued that firms which audited by 'Big 4' have a smaller number of RPTs comparing to 'non-Big 4' firms, and in Indonesia by Habib et al. (2017) who found an association between EXQ and conducting RPTs with tunnelling activities. The current study results are not supporting the arguments that 'firms that audited by Big 4 have a smaller number of RPTs comparing to non-Big 4 firms'; and 'a negative association exists between EXQ and RPTs'. However, our result supports the argument that 'independent external auditor is seen as an effective mechanism to mitigate the negative effects of RPTs' that Big-CPA firms can play moderating roles in RPTs.

In conclusion, Model 2 and 4, which include independent variables added to control variables, reveals that only two of the five independent variables used in the current study (*FIRMEM* and *EXAUDQ*) are significantly explaining the dependent variables of RPTs, 'Purchases of goods from RP' and 'Sales of goods to RP', and the two RPTs dependent variables are not explained by any AC independent variable. Based on the above discussion concerning both the first and second dependent variables of RPTs, only H1 and H5 are accepted, but other hypotheses (H_2 , H_3 and H_4) are rejected. In other words, we can conclude that firm's EM and EXQ are significantly associated with the dependent variables of RPTs, and all AC features independence variables are not.

6 Conclusions

This research is a new attempt to study the influence of several independent variables related to the firm's EM and governance mechanism including the number of AC meetings, AC size AC independence, and EXQ on two RPTs (Purchases of goods from RP and Sales of goods to RP) using 454 firms listed in four emerging markets in the GCC area. This study may enrich the knowledge through providing empirical evidence on this area of research. The study employs two main RPTs which are 'Purchases of goods from RP' and 'Sales of goods to RP'. Our examination is built on information collected from 454 firm-year observations from the four countries, explicitly 'Bahrain, KSA, Kuwait and UAE' covering four years (2016–2019). HMR (four models) are utilised to study the influence of our independent variables on RPTs. The first two models, Models 1 and 2, represent the first RPTs variable, while the other two models, Models 3 and 4, represent the second RPTs variable. All models are significant at various levels of explanation, adjusted R^2 . Our results (Models 2 and 4) are consistent with Thomas et al. (2004), Gordon and Henry (2005), Cheung et al. (2009), Aharony et al. (2010), Lee et al. (2016) and Kohlbeck and Mayhew (2017) who reported a positive relationship firms' EM and RPTs (sales of goods to RP). Descriptive results signify that EM practice by the sampled firms over the four years may exist, however, its level is reasonably not high. Findings indicate that most AC members in the selected listed firms over the study period are independent, and above half of sampled firms are receiving audit services by a big four audit firm. KSA firms show the greatest volume of both RPTs over the study period followed by firms listed in Kuwait, Bahrain, and UAE. HMR Models 2 and 4, which include independent variables added to control variables, show that only two independent variables (*FIRMEM* and *EXAUDQ*) are significantly explaining RPTs dependent variables. In contrast, the two RPTs dependent variables are not explained by any AC independent variable.

6.1 Implications

The current study affords a distinctive influence and enhancement to the emerging markets accounting literature, specially GCC region, in the determinants of RPTs accounting research. This study has probable implications in theory and practice. In theory, it may offer new dimensions to the RPTs research area which is critical to different stakeholders of listed firms in GCC area. In practice, this research may offer some practical implications. It might afford additional valued insights on factors affecting two main RPTs which are 'Purchases of goods from RP' and 'Sales of goods to RP'. Empirical evidence on the RPTs area of accounting research may offer relevant awareness to various interested stakeholders covering regulators of stock markets in GCC area, managers in firms listed in GCC region, and other affected stakeholders. Our empirical findings are also distinctive because dealing with governance aspects including AC features and EXQ might enhance the financial reporting quality which helps shareholders and potential investors.

6.2 Limitations and recommendations

This study suffers from some limitations which might be overwhelmed in future research. First, the study ignores other factors which may affect RPTs such as features of board of

directors (board gender, board level of education and experience); ownership structure; firms' initial public offering and managers' compensation as probable clarifying factors of RPTs. Consequently, it could be valuable to broaden this study to contain more variables. Second, this study includes 454 firm-year observations over four-year period (2016, 2017, 2018 and 2019). Future research is highly recommended to include a bigger sample and to cover an extended period of study. Third, firms selected in our sample are chosen from four emerging markets in the GCC area, therefore, future research might involve more emerging markets.

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