INFLUENCE OF ADVERTISING INTENSITY ON REAL EARNINGS MANAGEMENT: EVIDENCE FROM FOUR SECTORS OF PAKISTAN

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ABSTRACT

The current study aimed to investigate the link between advertising intensity and real earnings management (REM) in the context of four sectors of Pakistan. Besides advertising intensity, market to book ratio, leverage, and firm size were included as explanatory variables. On the basis of data availability for the time period 2007-2019, 11 firms were selected from the Auto assembler sector, 6 firms from Auto parts, 16 firms from Food and Personal Care (PC), and eight firms from the Pharmaceutical sector. Data of the Auto assembler sector was analyzed by random effects panel data regression, whereas data of other three sectors was analyzed by fixed-effects model. In respect of Food and PC and Pharmaceutical sectors, the results of the present study indicate that the extent of REM increases with advertising intensity. Firms adopt the REM approach in order to show the positive outcome of large advertising expenditures. Additionally, a significant negative link between MBR and REM was noted for all sectors except Auto parts. Moreover, a significant positive link between leverage and REM was observed for all sectors except Food and PC. Also, a significant positive link between firm size and REM was noted for the Auto parts sector only. The present study is the first in Pakistan to investigate the link of advertising intensity with REM. This study has important implications for investors and regulators. Investors should carefully compare the firms of Food and PC and Pharmaceutical sectors with the other firms of respective sectors. Also, regulators shall make necessary modifications in the regulations to preclude firms from manipulating earnings. The focus of this study was on four sectors of Pakistan. Thus, the link between advertising intensity and REM can be tested for other sectors.

INTRODUCTION

Existing literature presents ample evidence regarding the practice of earnings management by the firms. Earnings are managed to: reduce agency costs (Mendoza et al., 2021), obtain debt at favorable terms (Ater and Hansen, 2020), reduce the cost of equity by reporting good earnings (Gao et al., 2020), and attain average profitability of the industry (Yamaguchi, 2020), rationalize the high compensation of managers (Liu et al., 2019), increase reported earnings (Mostafa, 2017), meet earnings estimate (Beccalli et al., 2015), evade reporting of losses (Roychowdhury, 2006). There are two methods of earnings management. The first is accrual-based earnings management (ABEM), and the second is real earnings management (REM). ABEM entails the use of discretion in the selection of accounting methods and estimation of key elements. In ABEM, earnings are manipulated by changing the estimate and/or accounting method. Moreover, ABEM has no direct cash flow effects. On

the other hand, REM involves the deviation of firms from their usual operational practices and has direct effects on cash flows of both current and future periods. In case of REM, firms use three methods for manipulation (Roychowdhury, 2006). In the first method, discretionary expenses of the present period are reduced in an attempt to report higher earnings for the same period. More often, such a reduction is made when it is expected that incurrence of these expenditures will not yield instantaneous income. Additionally, this reduction results in less cash outflows and subsequent high operating cash flows (OCF). In the second method, an excessive quantity of goods is produced, which results in a low cost of goods sold (CGS) due to the allocation of fixed costs among a larger number of units. Lower CGS results in higher earnings. However, operating cash flows reduce due to high production and carrying costs of output. In the third method, firms make efforts to boost their sales by means of offering lenient credit terms and price

discounts to customers. However, these favorable terms enhance the sales of the current period only. Moreover, OCF decreases due to lenient credit terms. As compared to accrual based earnings management, managers frequently adopt REM to manipulate earnings (Zang, 2012). Thus, the focus of this study is on REM only.

In the past, numerous researchers attempted to find the motives behind the advertising spending of the firms. Studies have reported that firms spend the amount on advertising in an attempt to: increase sales (Peng et al., 2014; Yang et al., 2020), attain the attention of customers (Kim and Kim, 2018), positively influence the purchase intention of customers (Mandliya et al., 2020), favorably influence brand image and credibility (Hussain et al., 2020), augment brand loyalty (Ha et al., 2011), enhance firm's intangible value (Sahay and Pillai, 2009).

Besides, a number of studies also probed the efficiency and effectiveness of firms' advertising spending. Brown and Cheong (2013) highlighted the inefficiency of firms in respect of advertising spending and recommended businesses to reduce this expense. Likewise, Sellers-Rubio (2018) also noted a high level of advertising inefficiency in firms. Moreover, Tanveer et al. (2020) pointed out the advertising ineffectiveness of firms. The authors highlighted the negative effects of advertising outlays on firms' profitability. On the basis of existing literature, it seems probable that to mask poor earnings due to unsuccessful advertising; managers can use REM for earnings manipulation so as to portray their advertising spending as successful. Thus, the aim of the present study is to test the link between advertising intensity and REM in the context of four sectors of Pakistan. These sectors include Auto assembler, Auto parts, Food and Personal Care (PC), and Pharmaceutical. These sectors are selected because firms belonging to them expend significant amounts on advertising, which raises the likelihood of their involvement in REM. The focus of the present study is to find the answer to the following question:

RQ1: Does advertising intensity induce firms to manipulate earnings through REM?

The current study is significant due to two reasons. First, it is the first in Pakistan to investigate the link of advertising intensity with REM. Second, it has important implications for investors and regulators.

Existing literature shows that REM has received ample attention from researchers. Achleitner et al. (2014) examined the influence of family firms on ABEM and REM. Authors documented that family firms employ ABEM to retain control for their generations and forgo the use of REM because of its negative effects on the long-term value of the firm. Nasir et al. (2018) tested the link of financial statements based fraud with REM. Authors documented that firms use REM to manipulate CFO and PC before committing fraud. Alhadab and Nguyen (2018) investigated the influence of diversification on REM. Authors reported that diversified firms employ REM to report higher earnings.

Al-Haddad and Whittington (2019) examined the connection of REM with corporate governance elements. Authors reported that REM escalates with an increase in ownership concentration and board independence. However, it decreases with an increase in managerial and institutional ownership. Nuanpradit (2019) probed the influence of CEO duality on REM and reported a positive link among these variables. Moreover, this study documented that firms with CEO duality manipulate earnings through sales management methods. Baatour et al. (2017) probed the link between board busyness and REM and found a positive association between them. This study observed that several board appointments of directors enhance the probability of REM. Ghaleb et al. (2020) examined the link between family ownership concentration (FOC) and REM and found a negative relationship. This study reported that FOC precludes executives from REM. Liao and Ouyang (2019) examined the connection between the risk of shareholder litigation and REM. This study noted a negative association between these variables. Precisely, lower risk encourages executives to use REM.

Chouaibi et al. (2019) tested the link of R&D intensity with REM and found a positive association between them. Authors documented that large expenditure on R&D pushes firms to manage earnings in an upward direction via REM. Sani et al. (2020) tested the effect of CEO discretion on REM. Authors observed that REM propensity decreases with CEO discretion, which increases the quality of financial reporting. However, the effect of CEO discretion on REM vanishes when directors hold political connections. Baatwah et al. (2020) investigated the joint effect of accounting expertise and religiosity on REM. Authors reported that REM reduces when top leaders of firms possess accounting expertise and religious beliefs.

Sitanggang et al. (2020) probed the association of REM with audit quality. This study documented a negative link of audit quality with abnormal OCF and a positive link with abnormal discretionary expenses. Li et al. (2020) tested the connection of REM with auditor-client remoteness. Authors reported that REM intensifies with an increase in geographical distance between auditor and client. Mnif and Hamouda (2021) probed the influence of audit quality on managerial preferences regarding the method of earnings management. This study documented that organizations shift to REM when auditing quality increases. Li et al. (2021) probed the influence of financial analysts on REM. This study reported that coverage by financial analysts restricts firms from REM. Cho et al. (2021) tested the link of employee tenure with REM. The authors documented a positive association among these variables. This association implies that employees with long tenures facilitate executives in REM.

Advertising has also received attention from various researchers in the past. Peterson and Leong (2010) tested the link of brand value with advertising spending and noted a positive connection between them. This study reported that brand value increases in response to advertising expenditures. Peng et al. (2014) probed the link between online advertising and sales. Authors reported that this mode of advertising has a positive effect on sales. Hussain et al. (2020) probed the influence of advertising on brand image, corporate image, brand credibility, and corporate credibility. This study presents that credible advertising has a positive influence on these variables. Farooq and Pashayev (2020) investigated the influence of product market competition on advertising expenditures. Authors observed a positive influence of

competition on advertising expenditures and concluded that intense competition forces firms to spend large amounts on advertising. Tanveer et al. (2020) probed the advertising effectiveness of firms in the context of Pakistan. This study pinpointed the advertising ineffectiveness of Pakistani firms. So, it is evident from the literature that firms are inclined to spend large amounts on advertising in an attempt to increase sales, improve brand value, strengthen brand image and credibility, and cope with the market competition. However, advertising success is not guaranteed. Hence, this ineffectiveness can encourage the managers to use REM and mask poor earnings due to unsuccessful advertising. Based on this literature, the following hypothesis is established:

H1: Advertising intensity exerts a significant impact on REM.

Besides advertising intensity, some other factors influence REM such as market to book ratio (MBR), leverage and firm size. Chouaibi et al. (2019) observed a positive connection between MBR and REM. Moreover, Anagnostopoulou and Tsekrekos (2017) reported a positive link between leverage and REM. Furthermore, Sani et al. (2020) reported a positive association of REM with firm size. Thus, the additional hypotheses are as follows:

H2: MTB ratio exerts a significant impact on REM.

H3: Leverage exerts a significant impact on REM.

H4: Firm size exerts a significant impact on REM.

Thus, the objective of the current study is to investigate the impact of advertising intensity on REM in the context of four sectors of Pakistan.

METHODOLOGY

Data Collection

The focus of this study was on the Auto assembler, Auto parts, Food and PC, and Pharmaceutical sector of Pakistan. Therefore, the time period 2007-2019 was selected for the collection of data. Firms from each sector were selected on the basis of data availability for the mentioned period. On the basis of this criterion, 11 firms were selected from Auto assembler, six firms from Auto parts, 16 firms from Food and PC, and eight firms from the Pharmaceutical sector. Relevant data were extracted from the Annual reports and historical stock price data of the selected firms. Websites of relevant firms and Karachi Stocks served as the sources of annual reports and historical stock price data. For data analysis, the final data set contained data for 11 years for the time period 2009-2019 because REM measurement involved the use of lag data.

Research Model

The following regression model is devised to test the hypotheses of the current study:

$$REM_{i,t} = \beta_o + \beta_1 AI_{i,t} + \beta_2 MBR_{i,t} + \beta_3 LEV_{i,t} + \beta_4 FS_{i,t} \quad (1)$$

In equation (1), REM symbolizes index of real earnings management, AI symbolizes advertising intensity, MBR symbolizes market to book ratio, LEV symbolizes leverage ratio, and FS symbolizes firm size. REM is the dependent variable of the study. AI, MBR, LEV and FS are the explanatory variables. AI is calculated by dividing advertising expenditures with sales. MBR is calculated by dividing the market value of

equity by its book value. LEV is calculated by dividing total debt by total assets. FS is calculated through the natural log of assets.

Index of REM is developed by following the approach adopted by Alhadab and Nguyen (2018), Chouaibi et al. (2019), Cohen et al. (2008), and Roychowdhury (2006). At first, the normal levels of discretionary expenditures, production costs and operating cash flows are estimated by employing regression models given below:

$$\frac{DE_{i,t}}{TA_{i,t-1}} = k_1 \frac{1}{TA_{i,t-1}} + k_2 \frac{S_{i,t-1}}{TA_{i,t-1}} + \varepsilon_{i,t} \quad (2)$$

$$\frac{PC_{i,t}}{TA_{i,t-1}} = k_1 \frac{1}{TA_{i,t-1}} + k_2 \frac{S_{i,t}}{TA_{i,t-1}} + k_3 \frac{\Delta S_{i,t}}{TA_{i,t-1}} + k_4 \frac{\Delta S_{i,t-1}}{TA_{i,t-1}} + \varepsilon_{i,t} \quad (3)$$

$$\frac{CFO_{i,t}}{TA_{i,t-1}} = k_1 \frac{1}{TA_{i,t-1}} + k_2 \frac{S_{i,t}}{TA_{i,t-1}} + k_3 \frac{\Delta S_{i,t}}{TA_{i,t-1}} + \varepsilon_{i,t} \quad (4)$$

In equation (2) to (4), DE indicates discretionary expenditures; TA indicates total assets; S indicates sales revenue; PC indicates production cost; ΔS indicate a change in sales revenue; and CFO indicates cash flow from operations. DE is measured by summing administrative and selling expenses. PC is measured by summing changes in inventories and the cost of goods sold. Afterward, abnormal levels of DE, PC and CFO are determined. Abnormal discretionary expenditures (ADE) are calculated by subtracting normal DE from actual DE. Likewise, abnormal production costs (APC) are calculated by subtracting normal PC from actual PC. Similarly, abnormal cash flows from operations (ACFO) are calculated by subtracting normal CFO from actual CFO. The values of ADE and ACFO are then multiplied by –1, so that they are understood in a manner similar to APC. Lastly, to measure the total extent of REM, its index is developed by summing ADE, APC and ACFO.

Estimation Approach

The use of multivariate regression analysis requires the absence of the multicollinearity problem. To find this problem's presence or absence, correlation between explanatory variables is determined along with variance inflation factors (VIF). Moreover, stationarity of data is tested by performing the unit root test. Additionally, two tests are employed prior to the regression analysis of panel data. The first is redundant fixed effects, which aid in the selection of a suitable model from common and fixed effects. This test is employed to test the unobserved heterogeneity. An observed p-value (F-stat.) of 0.05 or less confirms the presence of heterogeneity and validates the use of the fixed-effects model. The second is the Hausman test, which assists in the choice of a suitable model from random and fixed effects. An observed p-value (Chi-square stat.) of 0.5 or less validates the use of the fixed-effects model. After estimation, relevant values are considered in order to ensure the fulfillment of regression assumptions. The first is the residuals' mean value and is observed to ensure that it equals zero. The second is the p-value (JB stat.) and is observed to ensure the normal distribution of residuals. The third is LM statistic (Breusch-Pagan) and is considered to ensure the absence of the heteroscedasticity problem. The last is DW-statistic and is observed to ensure the absence of serial correlation.

RESULTS AND DISCUSSION

Table 1 presents descriptive statistics of all variables of the research model. Table 2 presents the results of the correlation analysis. It is clear from Table 2 that all VIFs are below 3. Also, correlation coefficients point towards the absence of a strong correlation among independent variables. So, it is evident from the results that the multicollinearity problem does not exist. Table 3 presents the result of data stationarity test.

Table 1. Descriptive statistics.

Variables	Statistics	Sector			
		Auto. Assem.	Auto. Parts	Food and PC	Pharma.
REM	Mean	0.180	-0.275	-0.007	0.072
	Median	1.076	-0.763	-0.280	0.833
	Max.	5.112	5.460	12.101	4.419
	Min.	-5.515	-5.536	-6.477	-6.463
	S.D.	2.615	2.600	2.704	2.694
AI	Mean	0.004	0.004	0.061	0.037
	Median	0.003	0.004	0.052	0.039
	Max.	0.023	0.014	0.277	0.131
	Min.	0.000	0.000	0.000	0.001
	S.D.	0.004	0.004	0.048	0.023
MBR	Mean	2.841	1.501	9.821	4.803
	Median	1.802	1.140	2.894	2.619
	Max.	23.571	4.778	248.211	99.622
	Min.	0.081	0.362	2.596	0.671
	S.D.	3.658	0.975	25.821	11.091
LEV	Mean	0.502	0.343	0.527	0.403
	Median	0.502	0.279	0.549	0.358
	Max.	0.808	0.745	0.832	0.785
	Min.	0.096	0.094	0.007	0.109
	S.D.	0.182	0.220	0.251	0.197
FS	Mean	15.729	15.271	14.963	15.315
	Median	15.962	15.372	14.983	15.297
	Max.	18.221	16.871	18.023	16.964
	Min.	12.581	13.768	10.856	13.595
	S.D.	1.387	0.826	1.504	0.979

Table 2. VIFs and correlation coefficients.

Sector	Variables	Correlations				VIF
		AI	MBR	LEV	FS	
Auto. Assem.	AI	1				1.03
	MBR	-0.063	1			1.10
	LEV	0.121	0.261	1		1.15
	FS	-0.096	0.076	-0.204	1	1.07
Auto. Parts	AI	1				1.45
	MBR	0.216	1			1.21
	LEV	0.513	0.145	1		1.37
	FS	0.317	0.410	0.234	1	1.29
Food and PC	AI	1				1.11
	MBR	0.168	1			1.20
	LEV	0.209	0.319	1		1.15
	FS	-0.170	0.235	0.093	1	1.12
Pharma.	AI	1				1.48
	MBR	0.011	1			1.24
	LEV	-0.031	0.432	1		1.51
	FS	-0.516	-0.106	-0.357	1	1.69

Table 3. Data stationarity test results.

Sector	Statistic	Variables				
		REM	AI	MBR	LEV	FS
Auto. Assem.	Levin, Lin and Chu t stat.	-2.18	-2.41	-3.42	-1.73	-2.34
	p-value	0.01	0.01	0.00	0.04	0.01
Auto. Parts	Levin, Lin and Chu t stat.	-4.47	-1.87	-5.22	-4.07	-2.20
	p-value	0.00	0.03	0.00	0.00	0.01
Food and PC	Levin, Lin and Chu t stat.	-5.40	-3.55	-1.66	-2.59	-4.59
	p-value	0.00	0.00	0.05	0.00	0.00
Pharma.	Levin, Lin and Chu t stat.	-1.94	-1.74	-1.95	-1.96	-4.15
	p-value	0.03	0.04	0.03	0.03	0.00

Note: The reported p-values of the test statistics in Table 3 ratify the stationarity of data.

Regression Results

Table 4 presents the results of redundant fixed effects and the Hausman test. Considering the results reported in Table 4, the random-effects model is preferred for the data analysis of firms of the Auto assembler sector. Moreover, the fixed effects model is preferred for the data analysis of firms of Auto parts, Food and PC, and Pharmaceutical sectors. According to the results presented in Table 5, a significant positive link is found between advertising intensity and REM in respect of Food and PC and Pharmaceutical sectors. However, this link is found to be insignificant in case of other two sectors. Hence, H1 is accepted in respect of Food and PC and Pharmaceutical sectors and rejected in respect of Auto assembler and Auto parts sectors. Further results indicate a significant negative link between MBR and REM in case of Auto assembler, Food and PC, and Pharmaceutical sectors. However, an insignificant link is observed in respect of the Auto parts sector. Thus, H2 is accepted for Auto assembler, Food and PC, and Pharmaceutical sectors, and rejected for Auto parts sector. Furthermore, a significant positive link is found among leverage and REM in case of Auto assembler, Auto parts, and Pharmaceutical sectors. But, an insignificant link is observed in respect of the Food and PC sector. Hence, H3 is accepted for Auto assembler, Auto parts, and Pharmaceutical sectors and rejected for Food and PC sector. Lastly, a significant positive link is found between firm size and REM in respect of the Auto parts sector. Conversely, an insignificant link is found in respect of the other three sectors. Hence, H4 is accepted for the Auto parts sector and rejected for the other three sectors. From Table 6, it is clear that the mean value of residuals is zero. Additionally, a p-value of the JB-statistic indicates that residuals are normally distributed. Moreover, the p-value of LM-statistic shows that the variance of the residuals is constant in case of all samples except Pharmaceutical. Lastly, the values of the DW-statistic (Table 5) fall in the acceptable range of 1.5 to 2.5, which implies that serial correlation does not exist.

Table 4. Results of Redundant Fixed Effects and Hausman Test.

Sector	Test	Statistic	p-value
Auto. Assem.	Fixed Effects	2.64	0.007
	Hausman	4.89	0.299
Auto. Parts	Fixed Effects	3.74	0.005
	Hausman	18.52	0.001
Food and PC	Fixed Effects	6.74	0.000
	Hausman	13.42	0.009
Pharma.	Fixed Effects	12.92	0.000
	Hausman	10.59	0.032

Table 5. Regression results.

Variables	Sector							
	Auto. Assem.		Auto. Parts		Food and PC		Pharmaceutical	
	Coeff. (β)	p-value	Coeff. (β)	p-value	Coeff. (β)	p-value	Coeff. (β)	p-value
Intercept	-6.31	0.19	-41.90	0.00	0.90	0.56	-15.32	0.13
AI	54.28	0.26	-59.95	0.70	1.63	0.03	16.86	0.03
MBR	-0.33	0.00	-0.27	0.58	-0.01	0.00	-0.03	0.00
LEV	4.49	0.00	23.12	0.00	1.37	0.62	7.37	0.00
FS	0.32	0.29	2.25	0.00	-0.12	0.31	0.78	0.24
F-Stat.	7.13		3.01		29.02		11.74	
p-val. (F)	0.00		0.01		0.00		0.00	
R²	0.20		0.33		0.78		0.63	
Adj. R²	0.17		0.22		0.75		0.58	
D-W Stat.	1.59		1.99		2.16		1.53	

Table 6. Tests of residuals.

Statistic	Sector			
	Auto. Assem.	Auto. Parts	Food and PC	Pharma.
Mean Residuals	0.00	0.00	0.00	0.00
Jarque Bera	4.35	1.85	0.61	0.36
p-value (JB)	0.11	0.39	0.74	0.83
Breusch-Pagan LM	59.97	10.52	117.02	43.52
p-value (LM)	0.30	0.79	0.56	0.03

Discussion

The observed positive connection between advertising intensity and REM implies that the level of REM activities increases with an increase in advertising intensity. The information asymmetry among shareholders and managers, as well as the owners' risk perception regarding advertising expenditures induces managers to report good consequent earnings. Therefore, managers manage earnings in an upward direction in order to report better earnings

On the basis of statistical evidence, it can be articulated that firm managers of Food and PC and Pharmaceutical sectors manage earnings in an upward direction through REM activities so as to highlight the positive results of advertising expenditures. Moreover, the negative connection between MBR and REM indicates that the level of REM activities increases with a decrease in growth opportunities. Additionally, the positive link between leverage and REM implies that the level of REM activities increases with an increase in leverage. Finally, the positive connection between firm size and REM indicates that large size firms undertake more REM activities than small size firms.

CONCLUSIONS

This study aimed to examine the effect of advertising intensity on REM in respect of four sectors of Pakistan. In respect of Food and PC and Pharmaceutical sectors, the results of the current study indicate that the extent of REM increases with advertising intensity. Firms adopt the REM approach in order to show the positive outcome of large advertising expenditures. For Auto assembler, Food and PC, and Pharmaceutical sectors, results indicate that the level of REM activities decreases with an increase in growth opportunities. For Auto assembler, Auto parts, and Pharmaceutical sectors, results show that the extent of REM activities rises with an increase in leverage. Lastly, in respect of the Auto parts sector, results indicate that large size firms undertake more REM activities as compared to the small size firms. This study has practical implications for investors and regulators. It is evident that the firms of particular sectors manage earnings by means of REM activities. Moreover, the earnings quality of firms differs because the extent of REM varies directly with advertising intensity. Therefore, investors should carefully compare the firms of Food and PC, and Pharmaceutical sectors with the other firms of respective sectors. Moreover, regulators shall make necessary modifications to the regulations to preclude firms from earnings manipulation. This study has two limitations. First, this study has examined the effect of advertising intensity on REM only. Second, the phenomenon was examined for selective sectors of Pakistan. Hence, the effect of advertising intensity on accrual based earnings management can be examined in the future. Moreover, this phenomenon can also be examined in other sectors.

REFERENCES

Achleitner, A.-K., Günther, N., Kaserer, C., Siciliano, G., 2014. Real earnings management and accrual-based earnings management in family firms. Eur. Account. Rev. 23, 431–461.

Alhadab, M., Nguyen, T., 2018. Corporate diversification and accrual and real earnings management: A non-linear relationship. Rev. Account. Financ. 17, 198-214.

Al-Haddad, L., Whittington, M., 2019. The impact of corporate governance mechanisms on real and accrual earnings management practices: evidence from Jordan. Corp. Gov. Int. J. Bus. Soc. 19, 1167–1186.

Anagnostopoulou, S.C., Tsekrekos, A.E., 2017. The effect of financial leverage on real and accrual-based earnings management. Account. Bus. Res. 47, 191–236.

Ater, B., Hansen, T.B., 2020. Earnings management prior to private debt issuance. Account. Res. J. 33, 269-285

Baatour, K., Othman, H. Ben, Hussainey, K., 2017. The effect of multiple directorships on real and accrual-based earnings management: Evidence from Saudi listed firms. Account. Res. J. 30(4), 395–412

Baatwah, S.R., Al-Qadasi, A.A., Al-Ebel, A.M., 2020. Religiosity at the top: does it interact with accounting expertise to limit real earnings management? Manag. Audit. J. 35, 1343-1377.

Beccalli, E., Bozzolan, S., Menini, A., Molyneux, P., 2015. Earnings management, forecast guidance and the banking crisis. Eur. J. Financ. 21, 242–268.

Brown, N., Cheong, Y., 2013. Measuring the advertising efficiency of the top US sports advertisers. J. Glob. Sch. Mark. Sci. 23, 23–40.

Cho, H., Choi, S., Kwon, D.-H., 2021. Employee tenure and earnings management through real activities manipulation. Asia-Pacific J. Account. Econ. 28, 387–410.

Chouaibi, J., Zouari, G., Khlifi, S., 2019. How does the real earnings management affect firms innovative? Evidence from US firms. Int. J. Law Manag. 61, 151-169.

Cohen, D.A., Dey, A., Lys, T.Z., 2008. Real and accrual-based earnings management in the pre-and post-Sarbanes-Oxley periods. Account. Rev. 83, 757–787.

Farooq, O., Pashayev, Z., 2020. Agency problems and the value of advertising expenditures in an emerging market: role of

product market competition. Manag. Financ. 46, 1123-1143.

Gao, H., Shen, Z., Li, Y., Mao, X., Shi, Y., 2020. Institutional investors, real earnings management and cost of equity: evidence from listed high-tech firms in China. Emerg. Mark. Financ. Trade 56, 3490–3506.

Ghaleb, B.A.A., Kamardin, H., Tabash, M.I., 2020. Family ownership concentration and real earnings management: Empirical evidence from an emerging market. Cogent Econ. Financ. 8, 1751488.

Ha, H., John, J., Janda, S., Muthaly, S., 2011. The effects of advertising spending on brand loyalty in services. Eur. J. Mark. 45, 673-691.

Hussain, S., Melewar, T.C., Priporas, C.V., Foroudi, P., 2020. Examining the effects of advertising credibility on brand credibility, corporate credibility and corporate image: a qualitative approach. Qual. Mark. Res. An Int. J. 23, 549-573.

Kim, T., Kim, O., 2018. Effects of ironic advertising on consumers' attention, involvement and attitude. J. Mark. Commun. 24, 53–67.

Li, S., Ding, F., Liu, Q., Qiao, Z., Chen, Z., 2021. Can financial analysts constrain real earnings management in emerging markets? Evidence from China. Asia-Pacific J. Account. Econ. 1–19. DOI: 10.1080/16081625.2020.1871043.

Li, X., Lin, Z., Luo, J., 2020. Does auditor-client distance matter to real earnings management? Evidence from China. Asia-Pacific J. Account. Econ. 27, 531–557.

Liao, Q., Ouyang, B., 2019. Shareholder litigation risk and real earnings management: a causal inference. Rev. Account. Financ. 18, 557-588.

Liu, F., Du, J., Bian, C., 2019. Don't touch my cheese: Short selling pressure, executive compensation justification, and real activity earnings management. Emerg. Mark. Financ. Trade 55, 1969–1990.

Mandliya, A., Varyani, V., Hassan, Y., Akhouri, A., Pandey, J., 2020. What influences intention to purchase sustainable products? impact of advertising and materialism. Int. J. Product. Perform. Manag. 69, 1647-1669.

Mendoza, J.A.M., Ramos, C.L.V., Yelpo, S.M.S., Fuentealba, C.L.D., Fuentes-Solís, R.A., 2021. Impact of earnings management on agency costs: evidence from MILA markets. Balt. J. Manag. 16, 247-275.

Mnif, Y., Hamouda, A. Ben, 2020. Audit quality and the trade-off between real and accrual earnings management in the oil and gas industry: the GCC evidence. J. Appl. Account. Res. 22, 223-251.

Mostafa, W., 2017. The impact of earnings management on the value relevance of earnings: Empirical evidence from Egypt. Manag. Audit. J. 32, 50-74.

Nasir, N.A.B.M., Ali, M.J., Razzaque, R.M.R., Ahmed, K. 2018. Real earnings management and financial statement fraud: evidence from Malaysia. Int. J. Account Info Manag. 26, 508-526.

Nuanpradit, S., 2019. Real earnings management in Thailand: CEO duality and serviced early years. Asia-Pacific J. Bus. Adm. 11, 88-108.

Peng, J., Zhang, G., Zhang, S., Dai, X., Li, J., 2014. Effects of online advertising on automobile sales. Manag. Decis. 52, 834-851.

Peterson, R.A., Jeong, J. 2010. Exploring the impact of advertising and R&D expenditures on corporate brand value and firm-level financial performance. J. Acad. Market. Sci. 38, 677-690.

Roychowdhury, S., 2006. Earnings management through real activities manipulation. J. Account. Econ. 42, 335–370.

Sahay, A., Pillai, A., 2009. Differential impact of advertising and distribution expenditure on Tobin's Q: A perspective from listed firms in India. J. Indian Bus. Res. 1(2/3), 77-94.

Sani, A.A., Latif, R.A., Al-Dhamari, R.A. 2020. CEO discretion, political connection and real earnings management in Nigeria. Manag. Res. Rev. 43, 909-929.

Sellers-Rubio, R., 2018. Advertising efficiency in the Spanish beer industry: spending too much? Int. J. Wine Bus. Res. 30, 410-427

Sitanggang, R.P., Karbhari, Y., Matemilola, B.T., Ariff, M., 2019. Audit quality and real earnings management: evidence from the UK manufacturing sector. Int. J. Manag. Financ. 16, 165-181.

Tanveer, M., Altaf, M., Mustafa, F., Attiq, S., 2020. Evaluation of advertising effectiveness and advertising expenditures in banking: A time series analysis. Paradigms. 14, 34–39.

Yamaguchi, T., 2020. Earnings management to achieve industry-average profitability in Japan. Asia-Pacific J. Account. Econ. 1–30. DOI: 10.1080/16081625.2020.1726188.

Yang, Z., Wu, Y., Lu, C., Tu, Y., 2020. Effects of paid search advertising on product sales: a Chinese semantic perspective. J. Mark. Manag. 36, 1481–1504.

Zang, A.Y., 2012. Evidence on the trade-off between real activities manipulation and accrual-based earnings management. Account. Rev. 87, 675–703.