Relationship between Financial Development and Earnings Management: A Comparison of Developed and Developing Countries

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Abstract

This research investigates the impact of financial development on earnings management in an international setting. It is expected that with high financial development in any country, the monitoring and scrutiny of accounting figures increase leading to greater enforcement and compliance of rules and regulation. Consequently, the markets get sophisticated to protect the investor and stakeholders' interest in the country. Previous studies indicate that there is a decrease in both real and accrual-based earnings management as financial development increases; however, other studies contend that only accrual-based earnings management decreases. We hypothesize that financial development has an inverse relationship with earnings management. To explore this phenomenon, we take cross-country evidence from two countries: one from developed and the other from developing countries. Our results showed that as financial development of a country increases, its AEM decreases and REM increases.

Keywords: *financial development, earnings management, accrual-based earnings management, real earnings management.*

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INTRODUCTION

Investors consider financial statements to be a reliable source of information that is free from any biasness and depicts the true performance of the firm (Tabassum et al., 2013). Managers, to meet the expectations of the shareholders, therefore, engage in earnings management. Schipper (1989) describes the process of earnings management as intervention of managers in financial reporting affairs of their own accord to secure some private gain. Davidson III et al. (2004) define earnings management as exploiting financial accounting principles that allow managers flexibility to some extent to report manipulated (increased or decreased) income on the financial statements. These earnings management activities suppress the accuracy and quality of accounting figures reported in the annual financial statements (Latif & Abdullah, 2015). This smoothing of figures conceals some facts that shareholders need to be cognizant of and hides the true position of the firm (Soliman and Rgab, 2014).

To protect investors from any myopic activities that destroy the firm's value in the long run, financial development needs to be increased. Given that financial management is the key to developing a good financial system of institutions that the managers cannot ignore, keeping managers updated on the current accounting and financial data, the country needs to emphasis on financial development. Financial development also highlighted the importance of financial accounting which provides useful information to investors and managers for efficient decision making and contributed towards achieving higher level of financial development. Therefore, financial development is crucial in controlling earnings management activities in developed and developing economies (Enomoto et al., 2018)

However, high quality accounting systems are always a requirement for high level of financial development and even then, countries have suffered financial losses due to poor financial systems and non-compliance of accounting standards. In response to financial scandals and frauds, the countries developed transparent accounting systems which ameliorated the firms' transparency, enabling stakeholders to get hold of accurate accounting information. This showed clear evidence that there is a relationship between accounting information and financial development and as the level and standard of accounting information increases, the financial development of a country also becomes better. As stated by Beck and Levine (2002), financial development entails implementation of governance policies by setting up an effective regulatory system, ameliorated accounting standards, transparency and disclosure practices and an efficient audit and monitoring mechanism.

In the current study, we will take earnings management as a proxy of quality of accounting information. Earnings management is important factor affecting quality of accounting information and it is split into two categories: accrual-based earnings management (AEM) and real earnings management (REM). AEM is concerned with accruals (difference between income and cash flows), and it is when the managers use their prudence to report earnings and meet forecasts. They can be discretionary or non-discretionary.

Discretionary accruals are when managers use accruals to manipulate changes in reported incomes using increased/ decreased bad debt reserves, warranty costs, and inventory write downs. On the other hand, non-discretionary accruals are those when managers choose to show income by manipulating revenue through accrual sales or sales on credit (Li et al, no date). In contrast, REM involves timing and structuring of actual business activities to achieve desired financial reporting results, for example, the sale of equipment in the quarter when extra earnings are needed to meet the analyst's forecast. The decisions also include delaying repair, advertising, and R&D expenses and for going capital projects that have a positive net present value.

To assess the extent of financial development, the index given by World Economic Forum (WEF) will be used. The index consists of 121 variables covers wider aspects of financial development than before. According to WEF (2012), financial development comprised of policies, factors and institutions that leads to financial intermediations and markets as well as access to capital and financial services. (Enomoto et al, 2015).

Financial development always leads to high financial and accounting standards compliance in a country. The rules and regulations are in place and the institutions are regulated to protect the investor's interest in the markets and organizations. The financial development also disciplined the managers by reducing their involvement in earnings management. Taking this perspective in view, we hypothesize that AEM and REM both decrease with financial development.

LITERATURE REVIEW

Financial development is essential for every economy, as it contains financial systems that offer financial services such as capital allocation, savings mobilization, and risk management, which play a vital role in growth and development of an economy (King and Levine, 1993; Beck et al., 2000; Beck and Levine, 2004). To sustain and be the part of financial system (Kumari and Pattanayak, 2017), business entities involve in earnings management process; producing manipulated and misleading financial information to deceive shareholders and investors for their personal gain. Earnings management has contradictory role with respect to financial development in terms of economic growth and development. Therefore, it is very crucial to organize the study that investigates the relationship between financial development and earnings management with reference to different economies. Previous studies of different research scholars regarding financial development and earnings management are highlighted in full details in the preceding text.

Financial development

Financial development is defined as development of financial markets, its instruments and financial institutions. An important role is played by financial development in controlling the earnings management practices of different types of economies (Enomoto et al.,2018). Financial development also refers to development of financial system. Financial system engages in a wide array of complex functions

i.e., mobilization of savings, allocation of capital funds, monitoring the use of funds and risk management to support economic growth (Levine, 1997). In the light of these complex functions performing by financial system, Stiglitz, (1998) nominates financial system as brain of the economy. This financial development can be achieved by capital account liberalization and by strengthening the legal and institutional structures regarding clearly describing property rights and ensure execution of contracts, (Chinn and Ito, 2005).

According to (Kiran, Cil and Guris, 2009), the private sector development strategy focuses on overcoming incurring costs in enforcing contracts, information acquisition and transaction execution that occurs in financial system with different tax and regulatory structure. This cost reducing process resultantly establishes financial contracts, intermediaries, and markets across countries at different times, which help in reducing poverty and stimulating growth and development in economy (Jung, 1986, Honohan, 2004; Jalilian and Kirkpatrick, 2005; Beck et al., 2007; Akhter et al., 2010; Perez-Moreno, 2011; Jeanneney and Kpodar, 2011).

Empirical research on the connection between economic growth and development can be traced back by the revolutionary work of Goldsmith (1969), who investigated an association between financial superstructure and economic infrastructure of a country. (Patrick and lewis, 1955) in their research work they identified two possible arrays of causal relationship between financial development and growth and, enlightened the first pattern as; that expansion in financial system is the resultant factor of growth, which means that as economy develops its demand for financial services increases, and in the second pattern demand for financial services is stimulated by expansion in financial system. Eryigit and Eryigit (2015) stated that financial development can be achieved when financial system performs its function in best possible ways to abolish distortions in market. It plays significant role in industrialization by mobilizing capital required for huge works (Bagehot, 1873; Hicks, 1969). Schumpeter (1912) argued that well performing banks boost technological innovation with the help of recognizing and financing those entrepreneurs who have best executing and productive opportunities. Banks and insurance companies are helpful in eliminating the holding of unproductive, extra savings and ensure these savings by safeguarding in an investment for productive use (Bencivenga and Smith (1991); Levine (1991)).

Theory explains that capital account liberalization accounts for financial development through different ways. First, financial liberalization raises real interest rate to its market equilibrium and alleviates financial repressions in protected financial markets (McKinnon, 1973; Shaw, 1973). Second, diminishing financial repression leads local and international investors to involve in more portfolio diversification, (Chinn and Ito, 2005). In the light of the above two points, we simply can say that financial liberalization causes decrease in cost of capital and aggregate its provision for borrowers. Third, financial liberalization surge efficiency in financial system by eradicating inefficient financial institution, and force them for reforms in their financial infrastructure, (Claessens et al., 2001; Stultz, 1999; Stiglitz, 2000). Such reforms in financial structure may demolish adverse selection, information asymmetry, and moral hazard and increase the provision of funds to potential

investors.

Earnings management

In academic writings, accounting choice, earnings management, income smoothing, and earnings manipulation are some of the terms that are used quite frequently (Brennan, 2021). However, even though no unanimously accepted definition for earnings management exists, various descriptions are provided in the accounting literature (Benish, 2001). Schipper et al. (1989) describe it as the process of intentionally manipulating financial statements with the objective of realizing some private gain. Similarly, Walker (2013) says that earnings management is the use of managerial discretion over accounting matters to affect how economic events are stated in financial statements.

It has been widely accepted that managers engage in earnings management for the benefit of their own rather than the interest of their shareholders, (Lassoued, Mouna and Sassi, 2017). Limited attention of investors (distracted investor) results in more opportunities for managers to engage in earnings management (Garel et al., 2017) and decreases how many financial activities are monitored (Basu et al., 2019). Firms incessantly being followed by banks, which hold equity in them, are more likely to have earnings of high quality which decreases manager's discretionary behavior (Kim and Yasuda, 2021). However, in another study by Beneish and Press (1993), it was found that managers' earnings management incentives might increase when engaged with banks having strict covenants. It was also found that earnings management increases when banks resort to heavy monitoring which indicates that monitoring increases, rather than decreasing, earnings management (Jha and Shankar, 2015).

Financial development simply refers to financial system development in which banks serve as an intermediary; enhancing the effective distribution of investments by their potential capability of acquisition and information processing regarding innovative activities of entrepreneurs (King and Levine (1993b), Galetovic (1996)) and provide these funds to the best possible opportunities.

In this section we will unleash the previous research work of different researchers who investigated banks involved in earnings management practices. Banks engage in earnings management process looks very strange not only because of their specific accounting system but also of having a distinct corporate governance structure (Mehran et al., 2012), opacity (Morgan, 2002), business regulations and complexity (Andres and Vallelado, 2008). Particularly, banks include greater proportion of leverage and assumes huge amount of risk and therefore due to their role as financial intermediary and payment system confronting the economy to great risk, (Lassoued, Mouna and Sassi, 2017). The great global financial crisis portrayed a clear picture of weak banking governance system which by their failure risk destroyed the entire economy, (Andres and Vallelado, 2008).

Consequently, due to its complexity, banking business involves greater information asymmetry which makes the monitoring process of managers more difficult

(Morgan 2002). Banks have multiple stakeholders (i.e., Owner-manager, depositors, insurers, and regulators) having different interests which distinguish them from other firms. Bank regulation plays an additional function of corporate governance, as it diminishes the efficacy of owner concentrations by levying limitations on bank's ownership, (Andres and Vallelado, 2008). Though these regulations exacerbate agency conflicts, (Leventis and Dimitropoulos, 2012), they also claimed that due to their sensitive role in financial sector Basel committee has acknowledged the significance of efficient corporate governance mechanisms for them, and thus (Santos, 2001) proved that governance structure of banks are of more importance than other sectors. Researchers in this strand of knowledge mainly focused developed markets for their investigation of association between ownership structure and earnings management and observed that high ownership concentration is the main difference between developed and developing countries (La Porta et al., 1999). Hence agency problems created by supremacy of block holder shifts from owner and manager to controlling owner and minority shareholders (Claessens and Fan, 2002).

From the above literature it is confirmed that earnings management practices can be followed in every economy either developed or developing. In the proceeding sections, we will try to find out the link between financial development and earnings management.

Relationship between earnings management and financial development

Why firms manage their earnings? Numerous researchers attempted to answer this question and presented wide array of factors that drive firms to manipulate their earnings. Huge body of literature highlighted two main motives that forces banks to manage their earnings. Earnings management in banking sector may stem either from regulators or from banks risk perception. Regulators continuously monitor banking activity with the help of capital accounts measure (Beatty et al., 1995). Therefore, banks meet their requirement of adequate capital with the help of adjustments in reporting (Beaver and Engel, 1996). Earnings management in baking sector with respect to risk perception are explained by researchers as, (Andres and Vallelado, 2008), Banks mainly depend on depositors or central bank as last resort for funding and so absorb huge amount of risk therefore they may involve in earnings management to perceive less risky. Among these two specific factors there include some others factors common with nonfinancial firms that motivates firms for earnings management. According to (Lassoued, Mouna and Sassi, 2017), these factors include initial public offerings (IPO), forecasted earnings meeting, merger plans and seasoned equity offerings and income smoothing. The most important factor in view of positive accounting theory that explains motivation for earnings management in firms is contractual issues: compensation contract (Gaver et al., 1995), debt contract (DeFond and Jiambelvo, 1994) and political costs (Watts and Zimmerman, 1986). In the light of above literature, it has been clear that the firm's involvement in earnings management practices is more prominent in those countries where legal systems; ensuring private property rights and support contractual arrangements are weak.

Similarly, according to (Levine, 1997) financial development: the quality of financial services (i.e., allocation of capital, trading-off risk, monitoring of managers, mobilizing savings, and facilitating the trade of goods and services and financial contracts) providing by financial institutions and markets displays great variation across countries. One of the popular theories of financial development is the Law and finance theory (Beck and Levine, 2003) supported the role of legal institutions in describing international differences in financial development. The theory suggested that those countries where legal system enforce private property rights, protect the legal rights of investors, support contractual settings and creditors are willing to give funds to institutions and play a direct role in financial market development (Chinn and Ito, 2005), which discourages and create hurdle for earnings management in the institutions. The past research reported that development of financial system can minimize earnings management and lead to good governance in the institution which protects the stakeholder's rights in the institutions. So, in the view of above literature review, it is hypothesized that there is an inverse relationship between financial development and earnings management of a country.

H: AEM decreases, and REM increases with higher level of financial development

RESEARCH METHODOLOGY

Research design

The research is Quantitative in nature with positivist philosophy. The data used are secondary in nature and extracted from Thomson Reuters Data-stream. There were 2 countries in the sample namely one from developed countries: Switzerland, and one from developing countries: Philippines. The data were taken from 2008-2017. There were thirteen variables including Net Income, Total Assets, Total Debt, Cost of goods Sold, Operating Cash flow, Net Sales, Receivables, Fixed Assets, Size (MV), Depreciation, Inventory, Change in Inventory and Market to Book Value. The Financial Development Score has been taken from World Economic Forum and as the FD scores are included in their report from 2008 so we started our sample period from 2008 to 2017. The FD score has been taken for every year for these 2 countries included in the sample period.

For the research, we follow the base article of Enomoto, Kimura and Yamaguchi (2015). In their article they used three measures to run the final model. The measures were:

A. Earnings Management Measure
1. Accrual- Based Earnings Management Measure
2. Real Earnings Management Measure

B. Financial Development Measure

Earnings management measures

As the literature suggested that there are two types of Earnings Management methods, firms of a country used
1) Accrual based
2) Real Earnings.

Accrual-based earnings management measure

The absolute value of abnormal accruals is used to measure AEM (Enomoto et al. (2015) also cited in Warfield et al., 1995; Cohen et al, 2008). Absolute values are used to capture the effect of income movement on accrual-based earnings management. The modified model of Jones (1991) is used for measuring accrual-based earnings management in Enomoto et al. (2015) article and I used the same for my research. The regression model is as follows:

$$\text{ACC}_{ijt} / A_{ijt-1} = \beta 0 + \beta 1 (1 / A_{ijt-1}) + \beta 2 ((\Delta S_{ijt} - \Delta AR_{ijt}) / A_{ijt-1} + \beta 3 (PPE_{ijt} / A_{ijt-1}) + \varepsilon_{ijt} \quad (I)$$

In this equation,

ACC stands for accruals that are calculated by taking the difference between Net Income and Operating Cash flow so therefore ACC = NI – OCF

A = Total Assets

ΔS_{ijt} = Change in Net Sales of firm i, country j at time t

ΔAR = Change in Accounts Receivables

PPE = Net property and Equipment

Regression model is run by taking ACC/ A-1 as Dependent Variable and $1 /_{A_{ijt-1}}$, $((\Delta S_{ijt} - \Delta AR_{ijt}) / A_{ijt-1}$ and (PPE_{ijt} / A_{ijt-1}) as independent variables. The regression residuals are then taken as EM1, and its absolute value is taken as Proxy for accruals-based Earnings Management (|A_ACC|).

Real earnings management measures

Following Enomoto et al. (2015), In their article, they have developed a proxy for three methods of REM: 1) Sales Manipulation 2) Reduction in discretionary expenses and 3) over-Production. Enomoto et al. followed the method of Roychowdhury (2006), Cohen et al. (2008) and Cohen and Zarowin (2010). For measuring REM, I run three regression models by taking an abnormal level of Operating cash flow CFO (A_CFO), discretionary Expenses (A_DE) and Production Cost (A_COGS).

$$CFO_{ijt}/A_{ijt-1} = \beta_0 + \beta_1(1/_{A_{ijt-1}}) + \beta_2(S_{ijt}/A_{ijt-1}) + \beta_3(\Delta S_{ijt}/A_{ijt-1}) + \varepsilon_{ijt} \quad (2)$$

$$DE_{ijt}/A_{ijt-1} = \beta_0 + \beta_1(1/A_{ijt-1}) + \beta_2(S_{ijt-1}/A_{ijt-1}) + \varepsilon_{ijt} \qquad (3)$$

$$PD_{ijt}/A_{ijt-1} = \beta_0 + \beta_1(1/A_{ijt-1}) + \beta_2(S_{ijt}/A_{ijt-1}) + \beta_3(\Delta S_{ijt}/A_{ijt-1}) + \beta_4(\Delta S_{ijt-1}/A_{ijt-1}) + \varepsilon_{ijt} \quad (4)$$

In these equations, CFO represents Operating Cash flows.

DE = General and Administrative Expenses.

PD = Cost of Goods sold + Change in Inventory.

S = Sales.

A_CFO, A_DE and A_PD are calculated through running regression for these three equations taking DVs and IVs according to the equation 2, 3 and 4. The residuals of these equations are then taken as EM2, EM3 and EM4 and for capturing the real effect of REM, we then use this in our final model.

The A_CFO, A_DE and A_PD values are converted into absolute values to use them in our REM Proxies (|A_CFO|), (|A_DE|) and (|A_PD|) respectively. Being consistent with Enomoto et al. 2015 and other researchers like Cohen and Zarowin (2010), we take the aggregate of these three variables to capture REM. First, we multiply A_CFO and A_DE with -1 (negative one) and add them to A_PD. The higher values of these showed greater income-increasing management. Again, for capturing the income decreasing effect we convert the aggregate measure to absolute value and use it as fourth proxy for REM.

Financial development measures

The financial development FD score has been taken from World Economic Forum Competitive Reports published each year from 2008 to 2017. The reports gave a comprehensive analysis of the overall development of the world economies. It also provides the World Economic Index of 137 economies having 12 Pillars or different domains through which the company's overall development is assessed.

For this research, we selected four pillars form those 12 i.e., 1. Institutional environment 2) Macroeconomic environment 3) Business Sophistication 4) Financial Market development. I have taken the score against these four pillars per year of two countries and then took average of these for one year.

The model for hypothesis testing

The hypothesis for this research is;

H: Financial development of a country does not affect the earnings management practices of its firms.

H: Financial development of a country does affect the earnings management practices of its firms.

The final model for this is:

$$EM_{ijt} = \beta_0 + \beta_1(FD_{ijt}) + \beta_2(Leverage_{ijt-1}) + \beta_3(Size_{ijt-1}) + \beta_4(MTB_{ijt-1}) + \beta_5(ROA) + \beta_6(NOA_{ijt-1}) + \sum \beta \; Year\_Fixed\_Effect + \sum \beta \; Firm\_Fixed\_Effect + \varepsilon_{ijt} \quad (5)$$

In the equation no 5, EM represent Earnings Management Proxies, that could be | A_ACC |, | A_CFO |, | A_DE |, |A_PD| or | REM|.

FD = Financial Development Score as being taken from mean value of the four pillars (Institutional, Macroeconomic, Financial market development and business sophistication)

Leverage = Total Debt divided by total Assets

Size = Natural Logarithm of market value of equities of country

MTB = Market to Book value

ROA = Return on Assets i-e Net Income divided by Total Assets

NOA = Net operating Assets divided by Sales

RESULTS AND DISCUSSIONS

Table 1 shows the regression results for Switzerland. The coefficients and their t-values are shown in the table. Five models are run with fixed effect of year and firm (the Hausman test results are included in the appendix). Five proxies of EM are used for analysis. For AEM, the absolute value of A_ACC is used as dependent variable. The results are shown in the first column of the table. The relationship between AEM and FD is negative and not significant. For Real Earnings Management (REM) three proxies are used: EM2 (|A_CFO|), EM3 (|A_DE|), EM4 (|A_PD|) and REM for aggregate. The two proxies of REM showed positive coefficients values with FD and with EM2 and with REM the value is significant at 1% and 10% respectively, which means that AEM is restrained in Switzerland and Managers mostly used REM as FD score is high in Switzerland. The f-statistics and their probability value against each model showed that the models are good fitted. The Adjusted R square values are 83%, 43%, 63%, 40% and 56% for EM1, EM2, EM3, EM4 and REM respectively. R-squared values tell about the percentage of independent variables explaining dependent variable which is AEM proxy EM1.

Table 2 shows the regression results of the regression results for Philippines. The coefficients and their t-values are shown in the table. Five models are run with fixed effect of year and firm. Five proxies of EM are used for analysis. For AEM, the absolute value of A_ACC is used as dependent variable. The results are shown in the first column of the table. The relationship between AEM and FD is positive and significant at 1%. For Real Earning Management (REM) three proxies are used: EM2 (|A_CFO|), EM3 (|A_DE|), EM4 (|A_PD|) and REM for aggregate. The four proxies of REM showed negative coefficients values with FD and no significance

for all four models of REM, this means that REM is restrained in Philippines and Managers mostly used AEM as FD score is low in Philippines. The f-statistics and their probability value against each model showed that the models are good fitted. The Adjusted R square values are 70%, 16%, 21%, and 8% for EM1, EM2, EM3, EM4 and REM respectively. R-squared values talks about the percentage of independent variables explaining dependent variable which is AEM proxy EM1.

Table 1 Regression for Switzerland

Variable	A_ACC	A_CFO	A_DE	A_PD	REM
Intercept (Constant)	10659272	0.104	0.108	0.000	0.166
	(1.850)	(7.261)	(2.691)	(4.480)	(3.653)
FD	-854859.500	-0.007***	0.001	0.000	-0.016*
	(-0.799)	(-2.598)	(0.091)	(-0.653)	(-1.935)
Leverage	-7158406	-0.077	0.065	0.000	0.058
	(-1.551)	(-6.690)	(2.033)	(-0.125)	(1.589)
Size	3028628	-0.002	-0.004	0.000	0.000
	(8.365)	(-2.376)	(-1.625)	(-4.720)	(0.108)
MTB	-172631.900	0.001	0.004	0.000	0.004
	(-0.584	(1.566)	(1.982)	(-0.156)	(1.714)
ROA	-36084379	0.003	0.252	0.000	0.286
	(-5.031	(0.163)	(5.047)	(0.689)	(5.045)
Year Fixed effect	Included	Included	Included	Included	Included
Firm Fixed Effect	Included	Included	Included	Included	Included
Adjusted R Squared	0.830	0.438	0.635	0.406	0.567
Observation	176	176	176	176	176

F-statistic	**36.198**	**6.627**	**13.557**	**5.926**	**10.464**
Prob(F-statistic)	**0.000**	**0.000**	**0.000**	**0.000**	**0.000**

Note: The following regression equation was estimated

$$EM_{ijt} = \beta_0 + \beta_1(FDijt) + \beta_2(Leverage_{ijt-1}) + \beta_3(Size_{ijt-1}) + \beta_4(MTB_{ijt-1}) + \beta_5(ROA) + \beta_6(NOA_{ijt-1})$$
$$+ \sum \beta\ Year\_Fixed\_Effect + \sum \beta\ Firm\_Fixed\_Effect + \varepsilon_{ijt}$$

EM represents the Earnings Management Proxies. Five proxies have been used as dependent variables to run the upper regression models. The proxies are |A_ACC| (EM1), |A_CFO| (EM2), |A_DF| (EM3), |A_PD|(EM4) and |REM|. Furthermore, |A_ACC|, |A_CFO|, |A_DF|, |A_PD| and |REM| are the absolute values for abnormal Accruals, abnormal Operating Cash flows, abnormal general and administrative expenses (Discretionary Expenses), Abnormal Cost of goods sold- change in Inventory and aggregated REM (Combining EM2, EM3 and EM4) simultaneously. |A_ACC|, |A_CFO|, |A_DF|, |A_PD| are the residuals of the regression equations 1,2,3 and 4. REM is the sum of EM2 x -1 + EM3 x -1 + EM4. FD is the measure of Financial Development, and its value has been taken from yearly reports of World Economic Forum. FD is the mean score of the four pillars i.e., Institutional, Macro economic environment, Financial Market development and business sophistication. Leverage is the total debt divided by total Assets and size is the natural logarithm of MV. MTBV is the market to book value ratio and ROA is the return on asset ratio. This is the regression table and all the coefficient values of the Five models run are given in first line, in the second line the t-values are given in the parenthesis and the "*** ** *" shows the significance at 1%, 5% and 10%.

Table 2 Regression for Philippines

Variable	A_ACC	A_CFO	A_DE	A_PD	REM
Intercept (Constant)	-27357314	3.479764	0.095137	0.002565	3.399686
	(-1.70650)	**(4.022691)**	**(4.475277)**	**(1.713886)**	**(3.988658)**
FD	188203***	-0.342602	-0.007912	-0.000368	-0.332802
	(4.21736)	**(-1.42277)**	**(-1.33706)**	**(-0.88273)**	**(-1.40266)**
Leverage	42422612	-0.552026	-0.049145	-0.003525	-0.514464
	(4.141013)	**(-0.99862)**	**(-3.61764)**	**(-3.6865)**	**(-0.94453)**
Size	7942288	-0.03573	-0.000332	-2.12E-06	-0.035702
	(7.62513)	**(-0.63572)**	**(-0.24022)**	**(-0.02175)**	**(-0.64469)**
MTB	-45584.63	-0.002744	9.85E-06	-1.91E-06	-0.002724
	(-1.76484)	**(-1.96856)**	**(0.28757)**	**(-0.79170)**	**(-1.98359)**
ROA	-8197940	0.005833	0.005099	0.000136	0.002733
	(-1.31315)	**(0.01731)**	**(0.61594)**	**(0.23259)**	**(0.00823)**

Year Fixed effect	included	included	included	included	included
Firm Fixed Effect	included	included	included	included	included
Adjusted R Squared	0.704662	0.164271	0.21263	0.008345	0.162737
Observation	1571	1571	1571	1571	1571
F-statistic	20.61229	2.615699	3.219789	1.06917	2.597684
Prob(F-statistic)	0.0000000	0.0000000	0.000000	0.259469	0.0000000

Note: The following regression equation was estimated

$$EM_{ijt} = \beta_0 + \beta_1(FD_{ijt}) + \beta_2(Leverage_{ijt-1}) + \beta_3(Size_{ijt-1}) + \beta_4(MTB_{ijt-1}) + \beta_5(ROA) + \beta_6(NOA_{ijt-1}) + \sum \beta \, Year\_Fixed\_Effect + \sum \beta \, Firm\_Fixed\_Effect + \varepsilon_{ijt}$$

EM represents the Earnings Management Proxies. Five proxies have been used as dependent variables to run the upper regression models. The proxies are |A_ACC| (EM1), |A_CFO| (EM2), |A_DF| (EM3), |A_PD|(EM4) and |REM|. Furthermore, |A_ACC|, |A_CFO|, |A_DF|, |A_PD| and |REM| are the absolute values for abnormal Accruals, abnormal Operating Cash flows, abnormal general and administrative expenses (Discretionary Expenses), Abnormal Cost of goods sold- change in Inventory and aggregated REM (Combining EM2, EM3 and EM4) simultaneously. |A_ACC|, |A_CFO|, |A_DF|, |A_PD| are the residuals of the regression equations 1,2,3 and 4. REM is the sum of EM2 x -1 + EM3 x -1 + EM4. FD is the measure of Financial Development, and its value has been taken from yearly reports of World Economic Forum.   FD is the mean score of the four pillars i.e., Institutional, Macro economic environment, Financial Market development and business sophistication. Leverage is the total debt divided by total Assets and size is the natural logarithm of MV. MTBV is the market to book value ratio and ROA is the return on asset ratio. This is the regression table and all the coefficient values of the Five models run are given in first line, in the second line the t-values are given in the parenthesis and the "*** ** *"show the significance at 1%, 5% and 10%.""

RESULTS

The regression results showed that Switzerland has two significant values of EM2 and REM at 1% and 10% respectively, and both values are negative.

The A_ACC (AEM) value for Switzerland, even though the coefficient of financial development is negative, is not statistically significant.

For Philippines, the coefficient of financial development for A_ACC is positive and significant. In contrast, all the other earnings management variables show negative values, but they all are statistically insignificant.

CONCLUSION

Earnings management is the intervention of managers in financial reporting affairs of their own accord to secure some private gain. To protect investors from any

myopic activities that destroy the firm's value in the long run, financial development needs to be increased. Financial development has been defined as the extent to which firms are evaluated and managers monitored.

In previous studies, there were mixed result as to how financial development affects managers' earnings management practices. Study by Enomoto et al. (2015) found that both accrual-based and real earnings management decrease with financial development. In contrast, other studies found that only accrual-based earnings management decreases while real earnings management increases.

For this study, sample of two countries has been taken to investigate the phenomenon under study that earnings management is affected by the financial development of that country. There are 3266 observations taken from 2 different countries, Switzerland, and Philippines, from 2008 to 2017, but as the proxies were used and for calculating earnings management proxies, we had to take the lag of the assets, so we dropped 2008. Finally, the data were available from 2009 to 2017 for analysis.

Our results showed that as financial development of a country increases, it shifts its earnings management practices from accrual-based earnings management to real earnings management. Therefore, we fail to accept the null hypothesis.

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Appendix

Hausman test results

Philippines	Model 1(A_ACC)	Model 2 (A_CFO)	Model 3 (A_DE)	Model 4 (A_PD)
Chi-Squre	4.14551	97.339776	15886750	7.681603
d.f.	3	3	2	4
Probability	0.2462	0	0.0004	0.104

Switzerland	Model 1 (A_ACC)	Model 2 (A_CFO)	Model 3 (A_DE)	Model 4 (A_PD)
Chi-square	5.141827	35.266	0.1747	1.102476
d.f.	3	3	2	4
Probability	0.1617	0	0.9163	0.8939