

Meeting Dividend Thresholds through Earnings Management: A Cross-cultural Comparison

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Abstract

Culture affects accounting rules and practices. Dividend distribution influences corporate operating decisions, and a previous year's dividends represent an earnings threshold. This study collected various countries' data from 2004 to 2014 from the COMPUSTAT database and analyzed how cultural factors influence the management of income to achieve a dividend threshold (i.e., desired earnings goal). Prospect theory reported that managers making decisions focus on the value from gains or losses with a certain reference point rather than the levels of wealth. The empirical results show that managers of listed firms in societies that exhibit uncertainty-avoidance, individualistic, power-distance, and masculinity meet or exceed dividend thresholds, whereas those in long term orientation societies do not. These findings emphasize the strong and direct effect of cultural values on meeting or exceeding dividend thresholds through earnings management over multiple years. In addition, our empirical results suggest that investors evaluate firm performance (i.e., earnings) before dividends are paid, which should be considered by financial market participants and regulators when assessing financial statements and the reliability of financial reporting among multiple countries. We only used a modified Jones model to measure earnings management. Therefore, tradeoff tools (i.e., real activities or other DA models) should be used to examine earnings management among managers to ensure the robustness of future studies.

Keywords: dividend thresholds, earnings management, culture

1. Introduction

Earnings management is subjective, because managers can adjust financial reports and structure transactions to mislead stakeholders regarding the (Healy and Wahlen, 1999). Empirical results have suggested that to satisfy stakeholders, firms conduct evaluations to determine whether earnings thresholds, such as change in earnings above zero (Heidarpour et al., 2014), positive earnings (Sun and Rath, 2012), and analyst forecasts (Athanasakou et al.2011), as well as dividend thresholds are met (Daniel et al.2008; Liu and Espahbodi, 2014; Dechow et al. 2010b; Koren and Valentincic, 2013). Managers appear willing to expend considerable effort in avoiding dividend cuts (Lintner, 1956), because dividends are crucial to investors (Deangelo and DeAngelo, 2006a). Furthermore, the importance of pay-out policies for firms (as signaling mechanisms, for clients, and for tax-induced decisions) and firms' economic environment indicates that pay-out threshold analysis is critical (Koren and Valentincic, 2013).

The culture in which a corporation operates may influence its ethical behavior (Zhang et al. 2013) as well as its accounting rules and practices (Han et al. 2010). Previous studies have determined that earnings management among various countries were attributed to cultural factors, demonstrating that culture influences earnings management (Doupnik, 2008; Callen et al. 2011; Zhang et al. 2013; Kanagaretnam et al. 2011; Doupnik and Tsakumis, 2004). Cross-country differences in firms' propensity to pay dividends and level of dividend payments are also likely to be affected by differences in national culture that may influence excessive earnings retention or payment as dividends (Zheng and Ashraf, 2014; Bae et al.,2012; Ashraf,2014; Khambata & Liu.2005; Shao et al., 2009; Fidrmuc & Jacob, 2010), however, these studies have been largely ignored, regardless of whether corporations' earnings management resulted in meeting or exceeding dividend thresholds.

In this study, we used dividend thresholds to measure earnings thresholds. Furthermore, we used power distance, individualism, uncertainty avoidance, masculinity, and long-term orientation to measure cultural dimensions. The purpose of this study was to clarify perceptions regarding the manipulation of income toward a desired earnings goal

(i.e., dividend threshold) and whether those perceptions are influenced by cultural factors.

2. Literature Review

2.1 Earnings Management

Francoeur et al. (2012) manipulated earnings through discretionary accruals (DAs) in the previous and current year involving merger and acquisition activities. Zhang and He (2013) determined that firms engage in earnings management through research and development expenditures. Chiu et al. (2013) reported that shared directors have more incentive to manage earnings when their position is related to accounting or leadership. Farrell et al. (2014) determined that firms that incur financing constraints are likely to engage in earnings management by using accrual-based and real activities. DeGeorge et al. (2013) reported that in highly financially developed countries, firms with analyst coverage engage in less earnings management because this coverage mitigates monitoring costs. Karampinis and Hevas (2013) revealed that tax is significantly related to earnings management during the period before the adoption of the International Financial Reporting Standards.

2.2 Earnings Thresholds

Sun and Rath (2012) demonstrated that firms are likely to avoid negative earnings through earnings management by using DAs. Moreover, Heidarpoor et al. (2014) revealed that firms manage earnings to maintain a positive earnings change, and Athanasakou et al. (2011) indicated that firms manage earnings to achieve analyst thresholds.

2.3 Culture and Dividend Thresholds

Maintaining dividend thresholds is a critical role for managers; therefore, they tend to manage earnings to achieve this goal (Liu and Espahbodi, 2014; Dechow et al. 2010b; Koren and Valentincic, 2013; Bennet and Bradbury, 2007; Peterson and Whitworth, 2013). Uncertainty avoidance implies a preference for non-ambiguity, and it thus results in earnings management (Callen et al. 2011; Zhang et al. 2013; Guan and Pourjalali, 2010), which reduces the level of uncertainty (Callen et al. 2011; Zhang et al. 2013). Douppnik and Tsakumis (2004) also determined that earnings may be managed because managers intend to prevent unfavorable and unanticipated earnings, particularly in uncertainty-avoidance societies. Therefore, managers in such societies are likely to achieve dividend thresholds. We propose the following hypothesis:

H1: Firms in *higher* uncertainty-avoidance societies are likely to achieve dividend benchmarks by manipulating earnings.

Hofstede (1980, 2001) demonstrated that people in individualistic societies are often considered to be respectful and protect everyone's rights, and they thus assert laws, rules, or regulations that protect people or their rights. Consequently, people in individualistic societies tend to comply with laws or rules. Therefore, individualistic societies exhibit a significantly negative relationship with earnings management (Desender et al. 2011; Callen et al. 2011; Zhang et al. 2013), because law enforcement is generally strong (Zhang et al. 2013), and accounting rules are stringent, particularly high-level regulatory monitoring, which impedes financial misreporting (Nabar and Boonlert-U-Thai, 2007). Because managers in individualistic societies may not manage earnings, corporations in such societies are not likely to consider exceeding earnings thresholds (i.e., dividend thresholds) a major goal. We propose the following hypothesis:

H2: firms are not likely to meet/beat dividend thresholds through earnings management in *higher* individualistic societies.

Power distance describes the level of power (i.e., equality or inequality) between people who interact with one another. Hofstede and Hofstede (2005) asserted that accounting systems are a tool that can be used by a power holder to demonstrate a desired image. Accounting numbers are thus distorted to achieve desired images in these societies. Guan and Pourjalali (2010) as well as Kinnunen and Koskela (2003) demonstrated that societies characterized by high power-distance exhibit a significantly positive relationship with earnings management, because individuals accept human authority and inequality (Kinnunen and Koskela, 2003) and do not demand power equalization or justification for power inequalities (Guan and Pourjalali, 2010). Therefore, managers in high-power-distance societies are likely to manage earnings because outsiders accept power inequalities, and consequently, accounting numbers can be distorted, enabling managers to meet or exceed earnings thresholds (i.e., dividend thresholds). We propose the following hypothesis:

H3: firms are likely to meet/beat dividend thresholds through earnings management in *higher* power-distance societies.

Masculinity refers to the extent to which a country emphasizes traditional male characters such as male achievement, control, and power. Hofstede (1980) suggested that people in high-masculinity societies seek to obtain achievements by gaining wealth or other means. Guan and Pourjalali (2010) determined that masculinity is associated with earnings management because of its emphasis on visible achievement. Performance because of misreporting in financial statements (Nabar and Boonlert-U-Thai, 2007; Guan and Pourjalali, 2010). Consequently, managers in high-masculinity

societies tend to frequently manage earnings, possibly enabling them to meet or exceed earnings thresholds (i.e., dividend thresholds). We propose the following hypothesis:

H4: firms are likely to meet/beat dividend thresholds through earnings management in *higher* masculinity societies.

Long-term orientation refers to the level at which a country devotes to traditional or forward-thinking values during a long-term period. However, Hofstede (2005) showed that managers in short-term orientation societies focus on only current earnings. Current profits are often accelerated by earnings management influenced by management decisions. Therefore, earnings management is less frequently implemented in long-term-oriented societies, indicating that firms in such societies are less likely to meet or exceed earnings thresholds (i.e., dividend thresholds) compared with those in short-term-oriented societies. We propose the following hypothesis:

H5: firms are not likely to meet/beat dividend thresholds through earnings management in *higher* long-term-oriented societies.

3. Methodology

Data from 2004 to 2014 were collected from the COMPUSTAT database. We used the following variables and research model.

3.1 Earnings Management

Discretionary accruals (DA) are components of total accruals that are susceptible to manipulation by managers and have been used frequently as a proxy for earnings management in previous studies, where the value of *it* was adopted to measure DAs. (Dechow et al. 1995)

$$\frac{ACC_{it}}{TA_{it-1}} = \frac{\beta_0}{TA_{it-1}} + \beta_1 \frac{\Delta SALES_{it} - \Delta AR_{it}}{TA_{it-1}} + \beta_2 \frac{PPE_{it}}{TA_{it-1}} + \varepsilon_{it} \dots\dots\dots (1)$$

where ACC_{it} represents the total accruals calculated as the continuing operating net profit minus the cash flow from operations for year *t*; TA_{it-1} denotes the assets for year *t-1*; $\Delta SALES_{it}$ is the change in sales for year *t*; ΔAR_{it} is the change in account receivables for year *t*; and PPE_{it} is the gross fixed assets for year *t*.

3.2 Dividend Thresholds

Daniel et al. (2008) reported that “expected dividends” represent an earnings threshold, and a firm’s expected dividend is measured as the previous year’s cash dividend; pre-managed earnings can thus be expressed as the operating cash flow plus nondiscretionary total accruals minus preferred dividends. We defined dividend thresholds as being exceeded when managed earnings (pre-managed earnings plus discretionary total accruals) are higher than expected dividend payments.

3.3 Cultural Dimensions

We defined a country’s cultural orientation according to the scale of Hofstede et al. (2010). We determined that if a country’s cultural orientation score on this scale is lower than 50, then the country’s culture is relatively low; otherwise, the culture is high. These measures include scores for power distance, individualism, uncertainty avoidance, masculinity, long-term orientation. Each country exhibited five cultural dimensions. We applied only the five cultural dimensions that were relevant in countries; thus, the sample size was 64 countries in this study (see Table 1)

Table 1. Culture dimensions of nations

Country	UA	IND	PD	MAS	LTO
Argentina	86	46	49	56	20
Australia	51	90	38	61	21
Austria	70	55	11	79	60
Bangladesh	60	20	80	55	47
Belgium	94	75	65	54	82
Brazil	76	38	69	49	44
Bulgaria	85	30	70	40	69
Canada	48	80	39	52	36
Chile	86	23	63	28	31
China	30	20	80	66	87
Colombia	80	13	67	64	13
Croatia	80	33	73	40	58
Czech Rep	74	58	57	57	70
Denmark	23	74	18	16	35
El Salvador	94	19	66	40	20
Estonia	60	60	40	30	82
Finland	59	63	33	26	38
France	86	71	68	43	63
Germany	65	67	35	66	83
Great Britain	35	89	35	66	51
Greece	112	35	60	57	45
Hong Kong	29	25	68	57	61
Hungary	82	80	46	88	58
India	40	48	77	56	51
Indonesia	48	14	78	46	62
Iran	59	41	58	43	14
Ireland	35	70	28	68	24
Israel	81	54	13	47	38
Italy	75	76	50	70	61
Japan	92	46	54	95	88
Korea South	85	18	60	39	100
Latvia	63	70	44	9	69
Lithuania	65	60	42	19	82
Luxembourg	70	60	40	50	64
Malaysia	36	26	104	50	41
Malta	96	59	56	47	47
Mexico	82	30	81	69	24
Morocco	68	46	70	53	14
Netherlands	53	80	38	14	67
New Zealand	49	79	22	58	33
Norway	50	69	31	8	35
Pakistan	70	14	55	50	50
Peru	87	16	64	42	25
Philippines	44	32	94	64	27
Poland	93	60	68	64	38
Portugal	104	27	63	31	28
Romania	90	30	90	42	52
Russia	95	39	93	36	81
Serbia	92	25	86	43	52
Singapore	8	20	74	48	72
Slovak Rep	51	52	104	110	77
Slovenia	88	27	71	19	49
South Africa	49	65	49	63	34
Spain	86	51	57	42	48
Sweden	29	71	31	5	53
Switzerland	58	68	34	70	74
Taiwan	69	17	58	45	93
Thailand	64	20	64	34	32
Trinidad and Tobago	55	16	47	58	13
Turkey	85	37	66	45	46
U.S.A.	46	91	40	62	26
Uruguay	100	36	61	38	26
Venezuela	76	12	81	73	16
Vietnam	30	20	70	40	57

UA: uncertainty-avoidance, IND :individualism, PD :power-distance, MAS :masculinity, LTO :long-term orientation

3.4 Model

We examined the frequency distribution of earnings by using the approach of Burgstahler and Dichev (1997). We redefined distribution of earnings as the “managed earnings” minus the expected dividend payments scaled by the beginning-of-period market value of equity.

3.5 Robustness Test

The samples in this study include only data from the 1th to 99th percentiles as measures for the robustness test to minimize the impact of outliers

4. Empirical Results

4.1 Descriptive Statistics

As shown in Table 2 (modified Jones model), the $1/TA_{it-1}$ coefficient was significantly negative, the $\frac{\Delta SALES_{it} - \Delta AR_{it}}{TA_{it-1}}$

coefficient was positive, and the $\frac{PPE_{it}}{TA_{it-1}}$ coefficient was negative. These results revealed that total accruals were

increased when companies possessed more assets; moreover, the change in sales was subtracted from the change in account receivables and divided by the lagged assets. However, total accruals decreased when companies obtained more gross fixed assets. As indicated in Table 3, the mean DA values (modified Jones model) were positive in societies characterized by power distance, uncertainty avoidance, and long-term orientation. Therefore, managers in these societies who conducted earnings management through DAs were considered income-increasing, performance-adjusted discretionary items (Chen et al. 2011)

Furthermore, the magnitude values were higher for power distance and lower for uncertainty avoidance. In addition, the mean DA values (modified Jones model) were negative in societies that were characterized by individualism and masculinity. Therefore, managers in these societies who conducted earnings management through DAs were considered income-decreasing, performance-adjusted discretionary items (Chen et al. 2011). Furthermore, these magnitude values were higher for individualism and lower for masculinity. Overall, these empirical results showed that DAs (modified Jones model) had differing effectiveness of detecting earnings management in these five society types.

Table 2. Descriptive statistics for the estimated cross section of the modified Jones model

	Dependent Variable: ACC_{it}
$1/TA_{it-1}$	-0.315***
$\frac{\Delta SALES_{it} - \Delta AR_{it}}{TA_{it-1}}$	0.299**
$\frac{PPE_{it}}{TA_{it-1}}$	-0.224**
F-value	17.832
R^2	0.517
Sample	42828

Notes: *** represent significance at the 1% level, two-tailed; ** represent significance at the 5% level,

two-tailed; * represent significance at the 10% level, ACC_{it} represents the total accruals calculated as the continuing

operating net profit minus the cash flow from operations for year t , TA_{it-1} denotes the assets for year $t-1$; $\Delta SALES_{it}$ is

the change in sales for year t ; ΔAR_{it} is the change in account receivables for year t , and PPE_{it} is the gross fixed assets for year t .

Table 3. Descriptive statistics for the earnings management (discretionary accruals: modified Jones model): five dimensions of culture

power distance	0.142	0.024	0.076
individualism	-0.087	0.026	-0.028
uncertainty avoidance	0.028	-0.023	0.001
masculinity	-0.034	-0.076	-0.047
long-term orientation	0.128	0.036	0.072

4.2 Empirical Test

We divided scaled earnings from -0.2 to +0.2 into intervals with a 0.005 width. Fig. 1 shows that managers in societies characterized by uncertainty avoidance tended to meet or exceed dividend thresholds through manipulating earnings by using a modified Jones model. This is illustrated in Panel B, which indicates a standardization difference between the negative value (-3.71) to the left of zero and the positive value (5.47) to the right of zero, and this result is consistent with that of El- Sayed Ebaid (2012). Panel C also shows that the Z test resulted in a significant level and that DAs had the effect of significantly increasing the percentage of occurrences of meeting the dividends benchmark from 45.66% to 63.31%, and this result is consistent with that of Gore et al. (2007). These results are consistent with H1. People in societies characterized by uncertainty-avoidance are threatened by uncertain situations. Therefore, reduced uncertainty may be engendered by earnings management, and this approach may be considered a mechanism. In other words, investors perceive that managers operate conservatively when they receive stable dividends, reducing the level of uncertainty (this is likely to be consistent with the bird-in-hand dividend theory). In societies characterized by uncertainty-avoidance, if an enterprise does not pay stable dividends, investors are reluctant to hold their stock. Hence, managers in these societies avoid engaging in earnings management through DAs (i.e., maintaining the value of dividends from the previous year) to satisfy investors.

Fig. 2 shows that managers in societies characterized by individualistic tended to meet or exceed dividend thresholds through manipulating earnings by using a modified Jones model. This is illustrated in Panel B, which indicates a standardization difference between the negative value (-3.07) to the left of zero and the positive value (3.28) to the right of zero, and this result is consistent with that of El- Sayed Ebaid (2012). Panel C also shows that the Z test resulted in a significant level and that DAs had the effect of significantly increasing the percentage of occurrences of meeting the dividends benchmark from 60.52% to 62.65%, and this result is consistent with that of Gore et al. (2007). These results are not consistent with H2. In theory, highly individualistic societies are relatively transparent and competitive, and their legal and accounting rules are stringent. Therefore, people in individualistic cultures comply with the law, and the regulatory monitoring in such cultures impedes financial misreporting, causing a low adoption of earnings management. However, these results suggested that investors were still likely to obtain stable dividends. Furthermore, the percentages of observations that met and missed dividend targets before and after the management of earnings were approximately a non-difference. Therefore, we also conclude that investors are likely to prefer “gains on capital” to dividends in individualistic societies. Overall, whether dividends are an earnings threshold for managers, and whether managers may manage earnings through DAs to avoid cutting dividends, individualistic societies are difficult to analyze.

Fig. 3 shows that managers in power-distance societies tend to meet or exceed dividend thresholds through manipulating earnings by using a modified Jones model. This is illustrated in Panel B, which indicates a standardization difference between the negative value (-4.48) to the left of zero and the positive value (6.61) to the right of zero, and this result is consistent with that of El- Sayed Ebaid (2012). Panel C also shows that the Z test resulted in a significant level and that DAs had the effect of significantly increasing the percentage of occurrences of meeting the dividends benchmark from 40.61% to 63.40%, and this result is consistent with that of Gore et al. (2007). These results are consistent with H3. In high-power-distance societies, power equalization is low. Consequently, managers assuming top power positions use accounting systems as a tool to demonstrate a desired image, and they can distort accounting numbers to achieve earnings management. Most of our sample members (26 of 41) are from emerging countries in which ownership concentrations are higher than those in developed countries, showing that power inequalities are higher and individuals accept human authority and inequality. Hence, to achieve the desired image, managers avoid reducing dividends by distorting accounting numbers through earnings management.

Fig. 4 shows that managers in societies characterized by masculinity tend to meet or exceed dividend thresholds through manipulating earnings by using a modified Jones model. This is illustrated in Panel B, which indicates a standardization difference between the negative value (-3.89) to the left of zero and the positive value (6.64) to the right of zero, and this result is consistent with that of El- Sayed Ebaid (2012). Panel C also shows that the Z test resulted in a significant level and that DAs had the effect of significantly increasing the percentage of occurrences of meeting the dividends benchmark from 40.11% to 61.98% , and this result is consistent with that of Gore et al. (2007). These results are consistent with H4. The accounting systems in societies characterized by high masculinity emphasize the

achievement of financial goals or performance. Therefore, managers tend to manage earnings more frequently to enhance their egos and achieve goals in these societies. Dividends are likely a benchmark for investors in societies characterized by high masculinity, because they signify enterprise performance. Therefore, managers provide stable dividends for investors by managing earnings above dividend thresholds to avoid negatively portraying company performance and attract investors.

Fig. 5 shows that managers tend not to meet or exceed dividend thresholds in long-term-oriented societies, although Panel B indicates a standardization difference between the negative value (-0.32) to the left of zero and the positive value (1.97) to the right of zero. However, this absolute value is not greater than 2.33, and this result is not consistent with that of Amar and Abaoub (2010). Furthermore, as shown in Panel C, the Z test resulted in a non-significant level, and DAs were associated with a significant reduction in meeting the dividend benchmark from 37.11% to 36.69%, and this result is consistent with that of Gore et al. (2007). These results are consistent with H5, because long-term-orientation societies focus on only forward-thinking values during a long-term period; short-term goals such as earnings are thus likely to be the major objective of firms operating in such societies. Hence, earnings management may not be used and dividend thresholds may also not occur in long-term-oriented societies.

Overall, numerous managers of listed firms meet or exceed dividend thresholds in four types of societies (excluding long-term-oriented societies). Furthermore, the percentage of occurrences of meeting or exceeding dividend thresholds through manipulating earnings by using a modified Jones model was higher in societies characterized by power distance (63.40%). The change in the proportion of meeting or exceeding dividend thresholds through pre-managed earnings and manipulated earnings by using a modified Jones model was also higher in these societies. Moreover, Kahneman and Tversky (1979) presented prospect theory and reported that managers making decisions focus on the value from gains or losses with a certain reference point rather than the levels of wealth. Therefore, our study supports the notion that expected dividend levels is a measure of earnings benchmarks. Furthermore, empirical solutions may be considered to be consistent with this specific theory in four types of society. However, to avoid possible bias from extreme values, we used only samples containing data from the 5th to the 95th percentiles as measures for the robustness test, and the results show that most of them are consistent. To shorten the tables, we omit the solution.

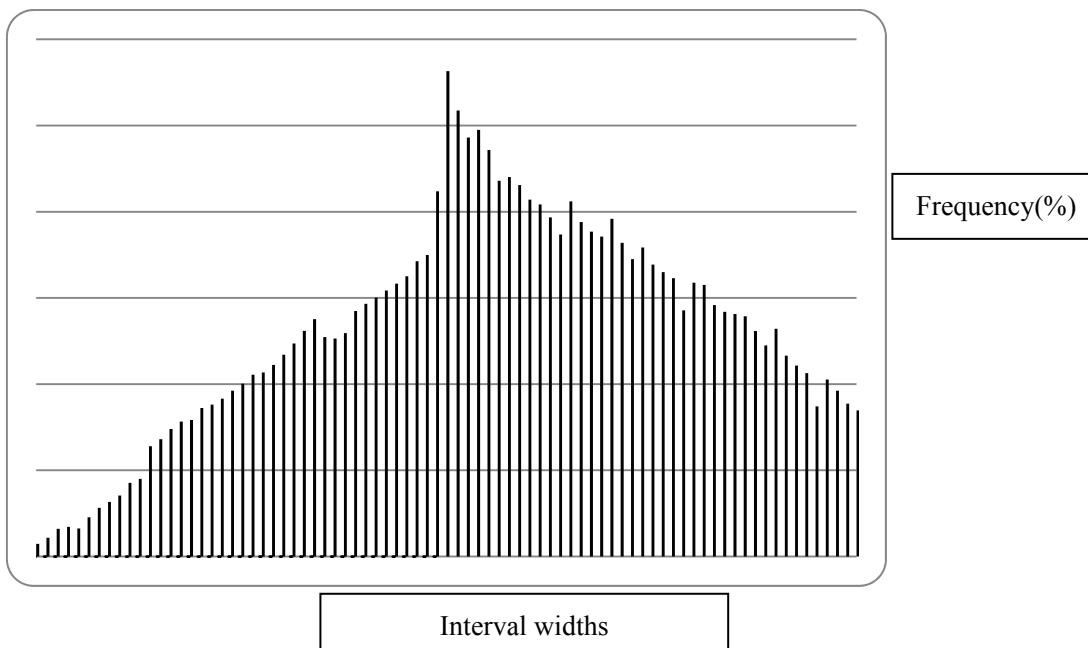


Figure 1. Distribution of earnings for the culture dimensions of Uncertainty Avoidance (N=49847).

Panel A: Histogram of dividend thresholds according to managed earnings level

Panel B Distribution of managed earnings and pre-managed earnings relative to dividend targets

class	earnings level		Pre-managed earnings level	
	$-0.005 < E_t \leq 0$	$0 < E_t \leq 0.005$	$-0.005 < E_t \leq 0$	$0 < E_t \leq 0.005$
N	865	1221	1045	1084
Std. Diff.	-3.71	5.47	-0.02	1.99

Panel C Proportions of observations achieving and missing dividend targets before and after discretionary accruals

	proportion	Z	P value
Pre-managed earnings level > 0	45.66%	121.12	0.000
managed earnings level > 0	63.31%		
0 < pre-managed earnings level ≤ 0.005	2.18%	9.02	0.000
0 < managed earnings level ≤ 0.005	2.45%		
-0.005 < pre-managed earnings level ≤ 0	2.10%	-13.03	0.000
-0.005 < managed earnings level ≤ 0	1.74%		

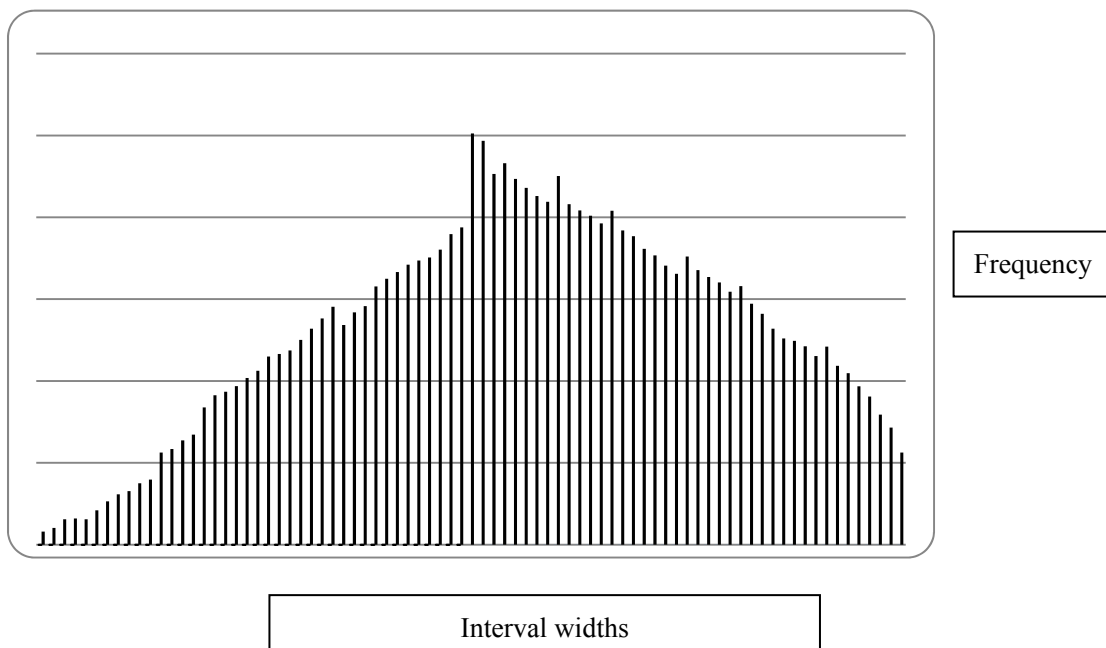


Figure 2. Distribution of earnings for the culture dimensions of individualism (N=43987)

Panel A: Histogram of dividend thresholds according to managed earnings level

Panel B Distribution of managed earnings and pre-managed earnings relative to dividend targets

class	earnings level		pre-managed earnings level	
	$-0.005 < E_t \leq 0$	$0 < E_t \leq 0.005$	$-0.005 < E_t \leq 0$	$0 < E_t \leq 0.005$
N	790	1020	871	952
Std. Diff.	-3.07	3.28	-0.38	0.06

Panel C Proportions of observations achieving and missing dividends targets before and after discretionary accruals

	proportion	Z	P value
pre-managed earnings level > 0	60.52%	4.02	0.000
managed earnings level > 0	62.65%		
0 < pre-managed earnings level ≤ 0.005	2.16%	1.68	0.093
0 < managed earnings level ≤ 0.005	2.32%		
-0.005 < pre-managed earnings level ≤ 0	1.98%	-1.99	0.046
-0.005 < managed earnings level ≤ 0	1.80%		

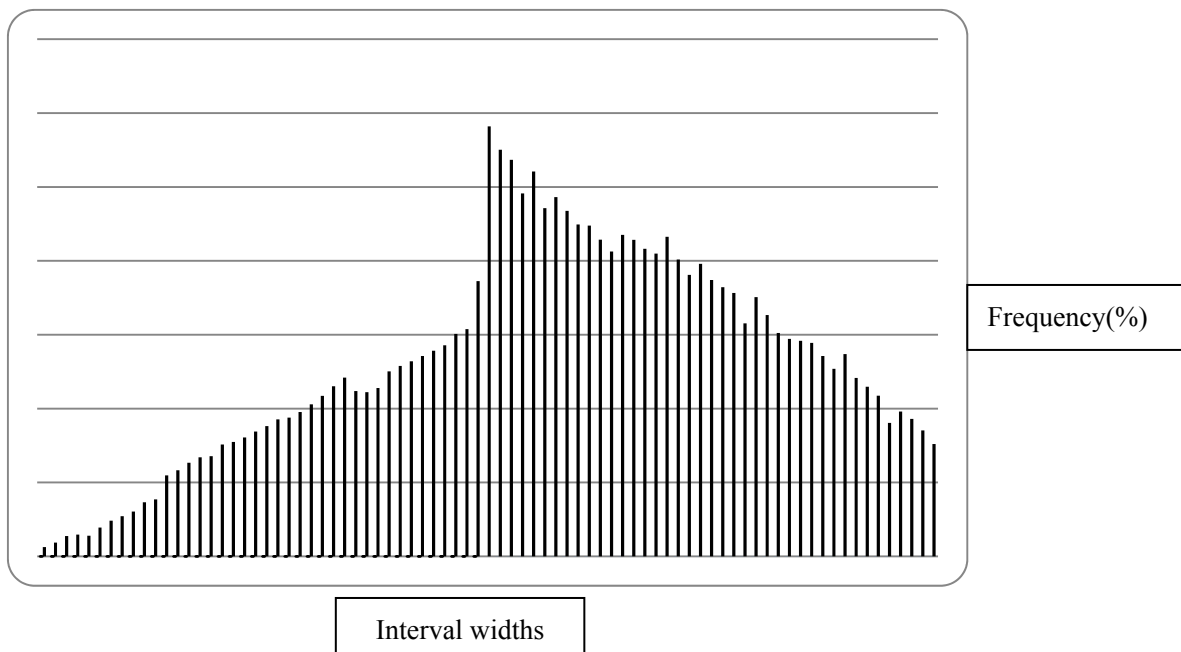


Figure 3. Distribution of earnings for the culture dimensions of power-distance (N=61965)

Panel A: Histogram of dividends thresholds according to managed earnings level

Panel B Distribution of managed earnings and pre-managed earnings relative to dividend targets

class	earnings level		pre-managed earnings level	
	$-0.005 < E_t \leq 0$	$0 < E_t \leq 0.005$	$-0.005 < E_t \leq 0$	$0 < E_t \leq 0.005$
N	982	1401	1242	1293
Std. Diff.	-4.48	6.61	-0.268	4.59

Panel C Proportions of observations achieving and missing dividends targets before and after discretionary accruals

	proportion	Z	P value
pre-managed earnings level > 0	40.61%	57.07	0.000
managed earnings level > 0	63.40%		
$0 < \text{pre-managed earnings level} \leq 0.005$	2.08%	2.08	0.038
$0 < \text{managed earnings level} \leq 0.005$	2.26%		
$-0.005 < \text{pre-managed earnings level} \leq 0$	2.04%	-5.51	0.000
$-0.005 < \text{managed earnings level} \leq 0$	1.58%		

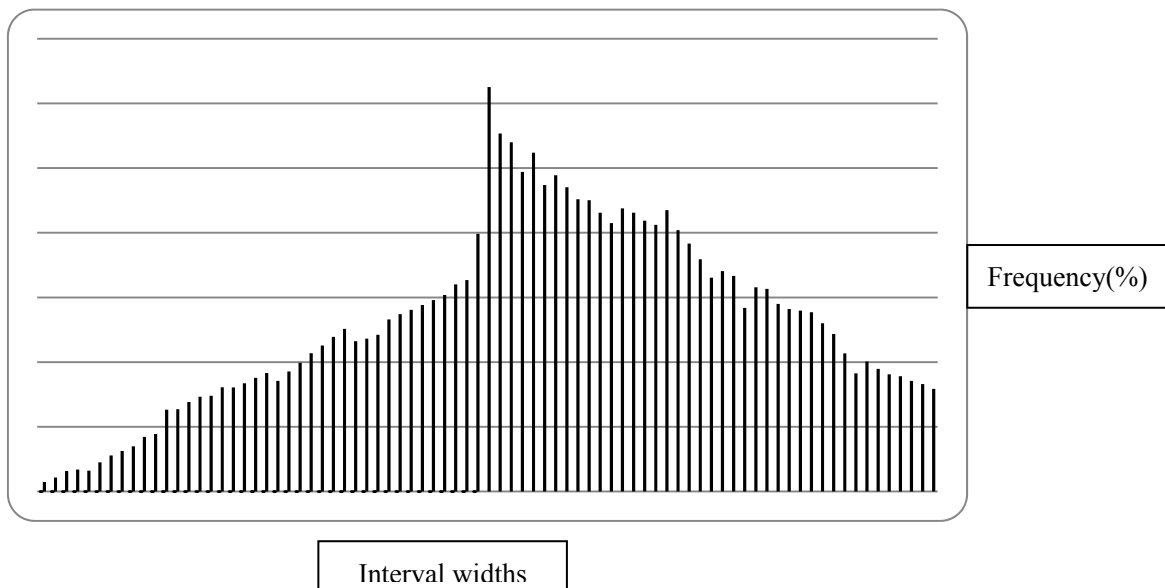


Figure 4. Distribution of earnings for the culture dimensions of masculinity (N=61996)

Panel A: Histogram of dividends thresholds according to managed earnings level

Panel B Distribution of managed earnings and pre-managed earnings relative to dividend targets

class	earnings level		pre-managed earnings level	
	$-0.005 < E_t \leq 0$	$0 < E_t \leq 0.005$	$-0.005 < E_t \leq 0$	$0 < E_t \leq 0.005$
N	1035	1489	1394	1270
Std. Diff.	-3.89	6.64	3.34	-0.91

Panel C Proportions of observations achieving and missing dividends targets before and after discretionary accruals

	proportion	Z	P value
pre-managed earnings level > 0	40.11%	55.19	0.00
managed earnings level > 0	61.98%		
0 < pre-managed earnings level ≤ 0.005	2.05%	6.044	0.00
0 < managed earnings level ≤ 0.005	2.40%		
-0.005 < pre-managed earnings level ≤ 0	2.24%	-10.56	0.00
-0.005 < managed earnings level ≤ 0	1.67%		

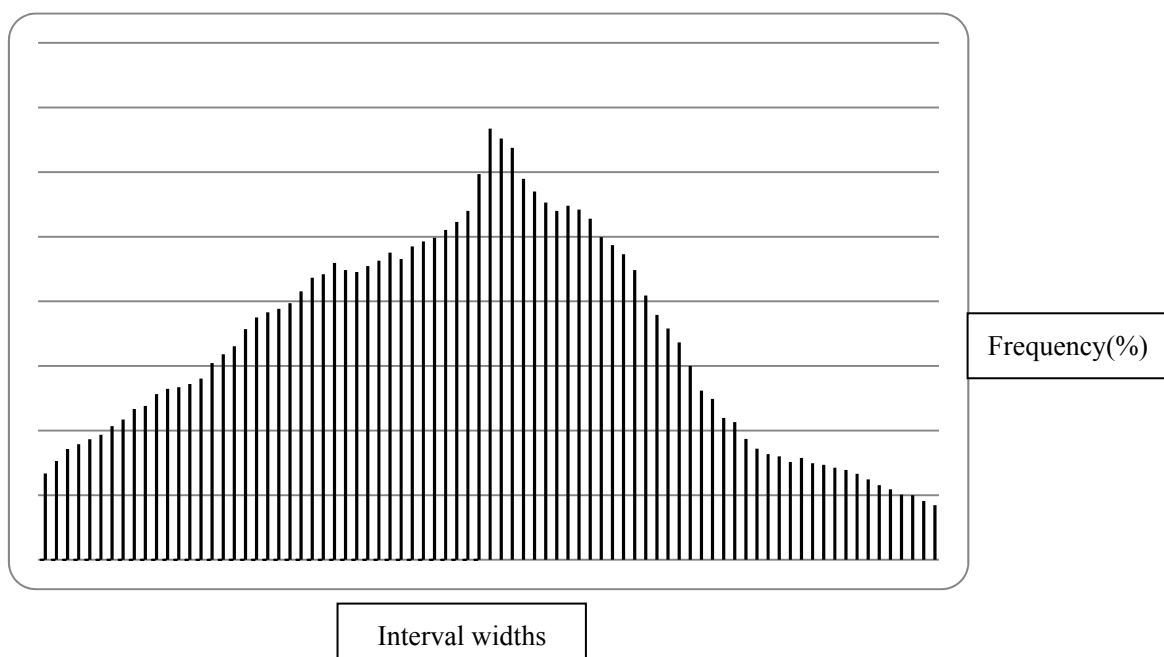


Figure 5. Distribution of earnings for the culture dimensions of long-term-oriented (N=54298)

Panel A: Histogram of dividends thresholds according to managed earnings level

Panel B Distribution of managed earnings and pre-managed earnings relative to dividend targets

class	earnings level		pre-managed earnings level	
	$-0.005 < E_t \leq 0$	$0 < E_t \leq 0.005$	$-0.005 < E_t \leq 0$	$0 < E_t \leq 0.005$
N	1194	1335	1078	1147
Std. Diff.	-0.321	1.971	-0.062	1.754

Panel C Proportions of observations achieving and missing dividends targets before and after discretionary accruals

	proportion	Z	P value
pre-managed earnings level > 0	37.11%	-1.11	0.267
managed earnings level > 0	36.69%		
0 < pre-managed earnings level ≤ 0.005	1.72%	5.03	0.000
0 < managed earnings level ≤ 0.005	2.14%		
-0.005 < pre-managed earnings level ≤ 0	1.85%	4.01	0.000
-0.005 < managed earnings level ≤ 0	2.20%		

5. Conclusion

Accounting rules and practices are influenced by culture. Dividends influence corporate decisions, and expected dividends represent an earnings threshold. We analyzed the manipulation of income toward a dividend threshold in various countries and determined whether those perceptions are influenced by cultural factors. Data from 2004 to 2014 were collected from the COMPUSTAT database. The empirical results show that managers of listed firms in societies characterized by uncertainty avoidance, individualism, power-distance and masculinity tend to meet or exceed dividend thresholds, whereas managers in long term orientation societies do not.

These findings emphasize the strong and direct effect of cultural values on meeting or exceeding dividend thresholds through earnings management over multiple years. In addition, our empirical results suggest that investors evaluate firm performance (i.e., earnings) before dividends are paid, which should be considered by financial market participants and regulators when assessing financial statements and the reliability of financial reporting among multiple countries.

However, this study has limitations. Dividends are almost always issued as cash dividends. However repurchases and stock dividends may also be issued. Therefore, net shareholder cash flow may not represent the overall dividend threshold, and researchers could stress the importance of firms' pay-out components. In addition, future studies could investigate the effects of culture on achieving the earning expectations of analysts. We used a modified Jones model to measure earnings management. Therefore, tradeoff tools (i.e., real activities or other DA models) should be used to examine earnings management among managers to ensure the robustness of our results. Finally, because numerous countries have adopted international financial accounting standards as their accepted GAAP, future studies could use this information to explain systematic differences in earnings management that have resulted from cultural differences.

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