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**Do Religion, Corporate Governance and BIG 4 Audit Interactions Affect
Misclassification?**

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ABSTRACT

This study examines the extent to which religious social norms of the firms' environment interacts with corporate governance and BIG4 audit to affect managers' motivation to engage in misclassification so as to influence reported core earnings. Using a sample of 23,164 U.S. firm-year observations between 2000 and 2015, we show that religiosity complements corporate governance to mitigate classification shifting in both rural and urban areas. In a religious environment, we find that managers have disincentive to shift revenue items from and core expenses into special items to inflate reported core earnings to avoid market penalties and beat analyst forecast, even more so in the presence of board independence. In addition, we find that the interaction between religiosity and audit from big four auditors also lower the presence of misclassification. Overall, results show that religiosity complements corporate governance and audit against misclassifying revenue items or core expenses.

Keywords: Religiosity, Classification Shifting, Corporate Governance, BIG4 and Audit Tenure.

1. INTRODUCTION

The objective of this study is to provide an empirical assessment of the extent to which religious social norms of the firms' environment interacts with corporate governance and BIG4 audit to affect misclassification of income-decreasing special items or special revenue items to influence reported core earnings. The study fills the gap in the literature on managers' opportunistic misclassification of revenue and/or expense items in a religious social norm environment. It is important to ascertain whether religious social norms of the firms' environment mitigate managers' opportunistic behaviour or economic motivations in classification shifting. By economic, the study suggests that religious social norms might influence misclassification of special items in order to signal and help users to understand the firms' underlying financial performance in line with prior research (Francis, Hanna and Vincent, 1996; Lougee and Marquardt 2004; Bowen, Davis and Matsumoto, 2005). By opportunistic behaviour, the study holds a view similar to prior studies (McVay, 2006; Fan et al. 2010) that misclassifying core expenses or revenue items into special items aims at influencing perceptions of the firms' performance in a biased way. Prior research indicates that highly religious individuals tend to hold conservative views and high moral standards than individuals with lower religious background (Terpstra, Rozell and Robinson, 1993; Barnett, Jermier and Lafferty, 1996). Following these studies, Conroy and Emerson (2004) examine the association between religiosity and financial reporting and find that religiosity is negatively related to the use of accounting manipulation. Kennedy and Lawton (1998) observe that the higher the degree of religious social norms in an environment, the stronger its effect on people who live and operate in that environment. On another strand of the literature (Terpstra et al. 1993; Barnett et al., 1996; Weaver and Agle, 2002; Conroy and Emerson, 2004; Longenecker, McKinney and Moore, 2004) provides evidence of the impact of religiosity on business ethics. For example, Weaver and Agle (2002) observe that business ethics is positively related to religiosity especially when religion is an important part of individual's self-identity. Similarly, Welch, Tittle and Petee (1991) note that the prominence attached to religious social norms in an environment has a great impact on individual's devotion to social norms, attitudes and beliefs. Thus managers' behaviour is shaped by the religious social norms of the population in the neighbourhood that surrounds them.

We extend research in the area of classification shifting to examine whether religious social norms in the firms' environment influence misclassification of core expenses and/or revenue to influence market perceptions, influence share price or beat analysts' benchmarks. Prior research document evidence of misclassification in expense items and demonstrates that managers opportunistically shift core expenses (cost of goods sold and selling, general and administrative expenses) to special items (Zalata and Roberts, 2015; Behn, Gotti, Hermann and Kang, 2013; Haw, Ho and Li, 2011, Fan, Barua, Cready and Thomas, 2010 and McVay, 2006), misclassify expenses in discontinued operations as operating expenses (Barua, Lin and Sbaraglia, 2010) and shift extraordinary items into operating expense (Barnea, Ronen and Sadan, 1976) to inflate core earnings. Again, several factors have been noted to mitigate classification shifting, for example; good internal corporate governance (Zalata and Roberts, 2015; Veprauskaite and Adams, 2013; Xie, Davidson, & DaDalt, 2003), monitoring role by financial analyst (Behn et al., 2013) and strong investor protection (Haw et al., 2011).

The objective of this study is to examine the impact of religious social norms on managers' motivation to manage core earnings using core expenses or revenue items in classification shifting. First, we use McVay (2006) expectation model to assess the existence of classification shifting and the impact of religiosity on classification shifting in the U.S. Secondly, we agree with the concerns raised by Fan et al. (2010) to exclude contemporaneous accruals from the original McVay (2006) model. Thirdly, we replace total accruals by working capital accruals (which exclude depreciation expense and other exceptional items) to avoid any bias associated with original McVay's (2006) model as reported by Athanasakou, Strong & Water (2009). In addition, we break our data into rural and urban areas, high and low religious areas in order to assess the effect of religious social norms on classification shifting.

Thereafter, we include interaction terms between religiosity and corporate governance variables, religiosity and audit tenure as well as religiosity and BIG4 auditors in line with Zalata and Roberts (2015) using McVay (2006) model to re-assess the impact of religiosity on classification shifting. We respond to the call by Callen et al., (2011) and McGuire et al., (2012) to examine the extent to which religion affects earnings management on a broader scale by exploring the association between religiosity and misclassification of revenue items from and core expenses into special items. Again, we focus on all U.S. states and use all U.S. county

level religious dataset from *The Association of Religious Data Archives (ARDA)* database and all US firms in the Compustat database. Overall, we identify 698 distinctive counties that are the headquarters of at least one of the firms on the Compustat annual database used in our analyses. We collect financial data from all firms on the Compustat database between 2000 and 2015.

From the analyses, we observe a significant negative association between religious social norms and classification shifting. The results suggest that religiosity mitigates managers' incentive to classification shifting. Thus, managers in a highly religious environment have no motivation to misclassify core expenses into special items or shift revenue items to meet capital market pressures or earnings targets. We also observe that religiosity is negatively related to classification shifting in firms located in both rural and urban areas in the light of the low (high) earnings quality often associated with urban (rural) firms respectively. In further analyses, we study the interaction between religiosity and corporate governance, audit tenure, BIG4 auditors and find that in a religious social norms environment, the effect of corporate governance, audit tenure and BIG4 auditor is more pronounced and negatively significant. Thus, religiosity complements corporate governance, audit tenure and BIG4 auditors to mitigate managers' incentive to misclassify revenue items or core expenses to inflate reported core earnings.

The study makes three important contributions. First, we examine whether religiosity is associated with income-decreasing special items or special revenue classification shifting. Second, we assess whether classification shifting occurs in both rural and urban areas despite the high earnings quality often associated with rural areas. In addition, we investigate whether corporate governance, audit tenure and BIG4 auditors mitigate classification shifting in firms' operating in highly religious environment. Finally, we provide different evidence of the interaction between religiosity and corporate governance variables, such as board size, board independence, audit committee, audit tenure and BIG4 auditors. The evidence shows that religiosity is negative and significantly associated with classification shifting. In addition, the study shows that religiosity impacts upon firms in rural and urban areas, and that religiosity serves as a monitoring mechanism to complement existing governance structure and external monitoring put in place by management.

The rest of the study is organised as follows. In section 2, we discuss the literature and develop the hypotheses. Section 3 covers research design, empirical methodology and estimation equations. Section 4 discusses data collection, sampling and descriptive statistics. The regression results are discussed in section 5. In addition, section 6 presents results of robustness tests and further sensitivity analyses. Section 7 provides conclusion and future research.

2. HYPOTHESES DEVELOPMENT

2.19 Religious Social Norm

From the view point of social norm theory, managers of firms operating in religious environment with diverse social norms exhibit varied behaviours (Tayler and Bloomfield, 2010). In fact, individuals' decisions are shaped by the moral values and social norms of the environment where they live or work. The resilience of religious social norms has posed great surprises in recent decades (Renneboog and Spaenjers, 2011; Hilary and Hui, 2009). For instance, prior research has established the relationship between religion and personal behaviour (Lehrer, 2004, p. 180), religion and development (Mersland, D'Espallier and Supphellen, 2012; Ter Haar & Ellis, 2006), religion, economic attitudes and household income (Renneboog and Spaenjers, 2011).

Previous researchers have also indicated that religion affects individuals' behaviour and that religiosity enhances individual's ethical values and attitudes (Tayler and Bloomfield, 2010; Vitell, 2009; Parboteeah, Hoegl and Cullen, 2008). This view is also corroborated by Shu, Sulaeman and Yeung (2012) who find that individual's level of religiosity is positively correlated with high ethical values. According to Lehrer (2004), the personal religious values such as: discipline (Kennedy and Lawton, 1998), accountable (Iannaccone, 1998), honest (Keister, 2003) has the potential to influence the performance of firms and for that matter the characteristics of individuals. In a related study, Barro and McCleary (2003) assess the impact of religiosity on performance and observe that managers can maintain high levels of success and performance irrespective of the demographic and cultural background in which the moral values are implemented. Sunder (2005) underscores the importance of religious values to the stakeholders of the firm and find that the absence of religiosity can potentially harm stakeholders and affect the whole system and performance of the organisation (Omer, Sharp and Wang, 2010).

2.2 Classification Shifting and Religious Social Norms

Prior studies document evidence of earnings management using accrual management (Donelson, Mcinnis & Mergenthaler, 2013; Gao, 2013; Gerakos and Kovrijnykh, 2013) and real-activities management (Kim and Park, 2014; Wongsunwai, 2013; Badertscher, 2011; Cohen and Zarowin, 2010; Gunny, 2010; Roychowdhury, 2006; Graham, Harvey & Rajgopal, 2005). Accruals management has a high cost of detection and involves borrowing earnings from future periods either through acceleration of revenues or delaying of expenses. On the other hand, real activities have lower cost of detection and involve the provision of discounts to boost sales and cutting down of discretionary expenses such as; advertising, research and development costs to increase earnings. In fact, previous studies to establish the association between religion and earnings management (McGuire et al., 2012; Callen et al., 2011; Dyreng et al, 2009) have ignored classification shifting as an earnings management method. McVay (2006) indicates that classification shifting re-arranges income statement items and does not change the bottom-line reported earnings but involves; classifying operating expenses as discontinued operations (Barua et al., 2010), classifying operating expenses as extraordinary items (Barnea, Ronen and Sadan, 1976), classifying operating expenses as special items (Fan et al., 2010; McVay, 2006) and classifying other operating income as special items (Noh et al, 2014). Indeed, establishing the link between individuals' religious values and economic development has been extensively covered in the economics literature but the link between religion and classification shifting is missing in the accounting literature. We investigate this gap in the earnings management literature.¹ Zalata and Robert, (2015); Fan et al., (2010) and McVay, (2006) indicate that whilst the various methods of earnings management raise expectations of future performance, both real-activities and accrual-based earnings management have the effect of reducing future or past earnings. Consequently, the reputation and the quality of the company are compromised (Cao, Myers and Omer, 2012). With income-decreasing classification shifting, McVay (2006) indicates that there is no change in reported bottom-line earnings; rather core earnings are inflated as recurring items are shifted to non-recurring and exceptional items leading to a positive relationship between core earnings and

¹ Classification shifting does not involve GAAP violation; auditors and regulators do not scrutinize classification shifting as they do for accrual-based and real-activities earnings management (Fan et al., 2010; McVay, 2006).

special items (Behn et al., 2013). There is no implication for future reported earnings (Barua et al., 2010), therefore, there is limited external monitoring and vigilance (Nelson et al., 2002).

On ethical grounds, previous studies (McGuire et al., 2012; Dryeng et al., 2010; Grullen et al., 2010) indicate that religiosity influences earnings management and curbs financial reporting irregularities. For example, Callen et al., (2011) find no relationship between religious social norms of the firms' environment and earnings management. However, McGuire et al., (2012) and Dyreng et al., (2010) report a negative association between religiosity and accrual-based earnings management but positive relationship between real-activities based earnings management and religiosity. However, Scott (1995) argues that earnings management can be beneficial by signalling managers' inside information to investors. From the discussions above, we posit that religiosity in a firm's environment can complement existing monitoring mechanism put in place by management to mitigate classification shifting practices or it's probable that managers in areas with strong religious backgrounds would misclassify core expenses into special items to increase reported core earnings to signal managers inside information to investors. The above arguments therefore lead to the following hypothesis:

H1a Classification shifting using income-decreasing special items is related to the religiosity of the firms' environment.

On the other hand, McVay (2006) and Bulkeley (2002) indicate that managers' might misclassify revenue items upward to increase reported core earnings. Prior research (Alfonso, Cheng and Pan, 2012; Cheon, 2011) indicate that firms' operating income covers all items except investment income and financial cost when operating income is low. Again, Noh et al (2014) investigate whether managers engage in classification shifting using both revenue and expenses items. They find that firms' shift other income to influence reported core earnings generally but engage in shifting of core expenses into special items just to meet or beat earnings benchmarks. Therefore, it's probable that firms misclassify revenue items to influence reported core earnings. McVay (2006) suggested that future research should consider upward classification shifting of revenue items. However, prior studies in the business ethics literature (Terpstra et al., 1993; Barnett et al., 1996; Weaver and Agle, 2002; Conroy and Emerson, 2004; Longenecker et al., 2004) indicate that providing misleading financial information is ethically and morally unacceptable. Also, the teachings from the various religious groups forbid mis-

reporting of financial information. For example, The Holy Bible says 'You shall not steal, nor deal falsely, nor lie to one another. 'You shall not swear falsely by My name, bear false witness so as to profane the name of your God; I am the LORD (Exodus 20:15; Leviticus 19:11-12). Also, the Holy Quran says “It is not for any Prophet to take illegally or falsify a part of booty (Ghulul), and whosoever deceives his companions as regards the booty, he shall bring forth on the Day of Resurrection that which he took (illegally). Then every person shall be paid in full what he has earned, and they shall not be dealt with unjustly” (Surah 161). In addition, the Securities and Exchange Commission (SEC) (2000) has expressed serious concern on the improper misclassification of line items on the income statement, especially revenue items. Therefore, the SEC regulates individual line items on the financial statements. Consequently, we investigate whether or not firms in the U.S. are engaged in shifting special revenue items to boost total revenue or reported core earnings. Secondly, we examine the impact of religiosity in the firms’ environment on upward misclassification of special revenue. Following the above discussions, the study examines whether managers in a religious social norm environment, might or might not be involved in opportunistic or economic misclassification of special revenue items to lower the expectation of the market, hide certain internal information from shareholders, mislead investors and financial analyst. The hypothesis that follows is stated below:

H1b: Classification shifting using special revenue items is related to the religiosity of the firms’ environment.

2.2 Classification Shifting, Religiosity and Corporate Governance

A sound corporate governance mechanism requires superior board independence, autonomous audit committees and separation of the Chief Executive Officer (CEO) and the chairman roles (Kim, Mauldin and Patro, 2014; Gonzalez and Garcia-Meca, 2014; Jo and Harjoto, 2011). Interestingly, previous research on corporate governance has concentrated on characteristics of corporate governance including; board structure and independence; ownership structure and influence; financial transparency and disclosure, as well as financial stakeholders rights and relations on performance, shareholder value, financial reporting (Ashbaugh-Skaife et al. 2006; Cullen and Christopher, 2002). Also, Chau and Gary (2010) examine the relationship between managerial ownership and financial reporting and find that managerial ownership is negatively

associated with the levels of voluntary financial disclosure. Prior research indicates that corporate governance in the area of public ownership allows large number of investors to press for full disclosure and quality financial reporting from management (Chau and Gray, 2002; Cullen and Christopher, 2002). Publicly owned companies have more shareholders and therefore are expected to exert more pressure on the board for more disclosure and extra information as a result of accountability issues.

However, studies (Kim et al. 2014; Uddin and Choudhury, 2008) indicate that several shareholders in publicly owned companies do not understand the financial reports presented at the annual general meeting (AGM) and therefore cannot influence the financial reporting quality. In addition, board independence is regarded as a key corporate governance mechanism that affects financial reporting quality because they are expected to make decisions that protect the interest of shareholders. Therefore, research indicates that financial reporting quality is positively associated with board independence, estimated as the number of independent directors on the board. In a related study, Li and Srinivasan (2011) observe that monitoring quality and financial reporting are enhanced when the roles of CEO and chairman are separated. Prior studies (Kim et al. 2014; Jo and Harjoto, 2011) state that separating the two roles strengthens the corporate governance mechanism and internal control system for effective financial reporting and performance management but they were quick to observe that several companies that have capable and effective boards are managed by individuals with a combination of CEO and chairman positions. In fact, a key influence on corporate governance mechanism is the presence of audit committees in an organisation (Turley and Zaman, 2004, 2007). Audit committee has the responsibility of ensuring effective internal control procedures, approving the choice of accounting policies, influencing the financial reporting and disclosure quality within an organisation. Li and Srinivasan (2011) indicate that there is a positive association between audit committee and financial reporting quality.

Prior studies (Agrawal and Chadha, 2005; Klein, 2002) observe that earnings management or restatements decrease when independent directors with banking experience or professional accounting background are on the audit committee. Previous research has also indicated a positive association between the market reaction and an appointment of a board member with an accounting background to the firm's audit committee (Davidson and Stevens 2010). This study observe that the effectiveness of the audit committee is enhanced and the integrity of

financial reporting is significantly improved, when there is a presence of financial expert on the audit committee. Similarly, where ownership is concentrated in the hands of few individuals, these shareholders exert pressure on the board of directors to the detriment of external creditors and non-controlling interest. Similarly, where corporate governance system allows for an independent scrutiny of managerial decision - making, shareholder value is enhanced and all stakeholders benefit (Ashbaugh-Skaife et al. 2006).

The accounting literature is satiated with studies that discuss the association between corporate governance mechanism and financial reporting irregularities (Cohen and Zarowin, 2010; Dechow, Sloan and Sweeney, 1996). These studies find that firms' that are involved in financial reporting irregularities have weak corporate governance mechanism. For example, studies (Cohen and Zarowin, 2010; Agrawal and Chadha, 2005; Faber, 2005; Abbott et al. 2004) observe that firms that have weak audit committees and whose board of directors are controlled by inside directors with few external non-executive directors have very weak financial reporting system. Importantly, the presence of autonomous audit committees reduces the motivation by firms to be involved in fraudulent financial reporting, the misstatement of financial reports, rather firms aspire to maintain high accruals quality. Several studies have examined the turnover of outside directors (Faber, 2005; Srinivasan, 2005), senior management (Li and Srinivasan, 2011) following the detection of financial reporting irregularities and accounting restatement. These studies find substantial turnover in boards, top managers and financial officers in firms that restate earnings and report financial irregularities.

Similarly, Zalata and Roberts (2015) observe that high quality internal governance in the board and audit committees mitigate classification shifting. Again, (Gonzalez and Garcia-Meca, 2014; Kim et al., 2014; Haw et al., 2011; Lin and Hwang, 2010; Harris and Raviv, 2008) indicate that strong corporate governance acts as a form of monitoring mechanism, controls devious managerial behaviour, mitigate classification shifting and reduces information risk. In addition, (Hossain, Mitra, Rezaee and Sarath, 2011) observe that the relationship between the board size, the number of meetings and accruals management is negative. Also, audit committees (Abbott, Parker, Peters and Raghunandan, 2003), number of meetings and financial expertise (Coles, Daniel and Naveen (2008), number of outside directors (Chau and Gray, 2010) and CEO reputation (Francis, Huang, Rajgopal and Zang, 2008) have been found to affect financial reporting.

Unlike the previous studies discussed above, the current study centres on the interaction between corporate governance (*defined in this study as presence of audit committee, strong board size and independent board*) and religiosity of the firms' environment on classification shifting. The extant literature has examined the relationship between corporate governance and other aspects of the organisation including; financial statements disclosure or reporting (Ashbaugh-Skaife et al. 2006; Faber, 2005; Srinivasan, 2005; Cullen and Christopher, 2002). Recently, several studies have also examined the association between religiosity and financial reporting irregularities (McGuire et al. 2012; Callen et al. 2011; Grullon et al. 2010). However, there is no study that has examined religion and misclassification as well as the effect of the interaction between corporate governance and religiosity on classification shifting in the U.S.

Therefore, it is probable that the influence of religious social norms on classification shifting would be significant or insignificant for firms with good internal corporate governance. On the other hand, it could also mean that the influence of religious social norms could complement internal corporate governance mechanism in mitigating classification shifting. Following the above discussions and in line with prior studies, we use board size, board independence and audit committees as our proxies for internal corporate governance mechanism to examine the effect of religiosity on classification shifting. The above discussion lead to the following hypotheses:

H2: The interaction between religiosity and audit committee, between religiosity and board size as well as religiosity and board independence is related to managers' classification shifting behaviour.

2.3 Classification Shifting and Religiosity in Rural and Urban Areas

Loughran and Schultz (2005) and Loughran (2007) observe that reported earnings quality are higher in rural areas and rural companies are more likely to report voluntary management earnings forecast. Similarly, Ucran (2007) finds that rural firms relative to urban firms provide higher quality financial information, better corporate disclosures and better quality reported earnings. Conventionally, prior research (McGuire et al., 2012; Ucran, 2007) indicate that those who live in rural areas tend to exhibit more traditional views and religiosity than their counterparts in the urban areas. Similarly, McGuire et al., (2012) examine religiosity and accruals earnings management in rural and urban areas and observe that religiosity mitigates

earnings management in rural areas despite higher earnings quality associated with rural areas. Ucran (2007) indicate that rural areas are associated with fewer local investors, poorer liquidity and low investment leading to higher cost of capital and lower market value. Consequently, managers of rural firms provide information to minimise the adverse effects of rural areas. Again, prior studies argue that managers of rural firms may provide better corporate disclosures to maintain their personal reputation in the society because they interact socially with potential investors and other stakeholders. In contrast, in the urban settings, it is possible for managers to distance their social life from employees and potential investors (Loughran, 2007; Ucran, 2007 and Loughran and Schultz, 2005). Therefore, managers of urban firms might be involved in classification shifting of special items because they might feel less pressure to main their personal reputation. On the other hand, where management in rural firms seek private benefits, they might try to engage in misclassification to hide information from the public at the expense of shareholders and this is likely to manifest in classification shifting and lower earnings quality. Following the above, it is important to show that our results concerning the impact of religious social norms of the firms' environment on classification shifting are not influenced by the high or low earnings quality attributable to firms headquartered in rural or urban areas. The above discussion lead to the following hypotheses:

H3: The religiosity in the firms' headquartered could affect differently managers' classification shifting behaviour in urban areas vs. rural areas.

3.0 DATA AND DESCRIPTIVE STATISTICS

3.1 Measuring Religiosity

We utilise religious dataset published by Religious Congregations and Membership Study (RCMS) between 2000 and 2010 to measure the strength of religious social norms. We use these datasets to create our proxy for religiosity. The religiosity dataset is derived from Association of Statisticians of American Religious Bodies (ASARB). The results of these surveys are published on the website of Association of Religion Data Archive (ARDA). The

survey consists of an average of 173 religious bodies² and a total of 248,957 congregations with an average of 150,686,156 adherents. This represents 51.9% of the average U.S. population during the period between 2000 and 2010. The average percentage of population showing religiosity and religious adherents from each U.S. County is 64.4% and respondents exceeded 55.9% of the total population from each U.S. County. Religious adherents consist of all members, full members, communicants or non-communicants, baptized or non-baptized, regular attendants, participants of weekly religious activities and those who consider religion as important part of their life.

The data set is then scaled by the total county population as reported by US Census Bureau of that same period. Conceptually, the higher the percentage of religious adherents in a county, the higher the impact of religious social norm on the firms headquartered in that county. Therefore, we use total number of religious adherents per capita in line with prior studies (Grullon et al., 2009; Hout and Greeley, 1998). Overall, we identify 698 distinctive counties that are the headquarters of at least one of the firms on the Compustat annual database used in our analyses between 2000 and 2015. The county-level religiosity scores are matched to their respective U.S. States by merging them by year using the state code identifiers from the Compustat's company location code where firms are headquartered to derive the State-level religious dataset. We use religious dataset covering all U.S. States. The data requirement for each dependent and independent variable is a function of the number of observations and test required for the analysis.

Table 1 below provides descriptive statistics for the measure of RELIGIOSITY (REL). Table 1 shows that religiosity in the U.S. is declining from an average of approximately 53% in 2000 to an average of 48% in 2010 in each county. This is consistent with the 2008 American Religious Identification Survey, which reports a substantial decline in religiosity among US population between 1990 and 2008. In addition, Table 1 indicates that approximately 54% of all people in each U.S. county are affiliated with a religion, attend a religious activity or considers religion as important in their life.

² Of this, there were on average 154 Christian denominations and associations (including Messianic Jews, Latter-Day Saints, and Universalist groups); there were also counts of Shinto, Sikh, Jain, National Spiritualist Association Congregations, and several congregations and adherents from three Buddhist groupings, four Hindu groupings, Baha's, four Jewish groupings, Zoroastrians and Muslims.

(Insert Table 1 Here)

In the robustness tests, we use Gallup religious database for the twenty most and least religious US States for the same study period. Based on the responses collected by Gallup, on whether religion is important, respondents attend religious activities weekly or are affiliated with religion, Mississippi came out, as the most religious state, whilst Vermont is the least religious state. The most religious states are mainly in the South, with the exception of Utah, while the least religious states are concentrated in New England and the West.

(Insert Table 2 here)

3.2 Control Variables

In line with prior research (McVay, 2006; Fan et al., 2010), the study includes lagged core earnings (CE_{t-1}) because of the unrelenting nature of core earnings. Again, asset turnover ratio (ATO_t) is added to the model because Nassim and Penman (2001) report that there exists a negative relationship between profit margin and ATO_t . In addition, McVay (2006) indicates that inclusion of ATO_t in the model (1) below is crucial because changes to the operating strategies are associated with firms that have large income-decreasing special items, for example, firms can change their profit and sales mix to affect the level of core earnings. We include $ACCRUALS_{t-1}$, which are prior year operating accruals and $ACCRUALS_t$, which are current year accruals in the model. Previous studies (Fan et al., 2010; McVay, 2006) observe that earnings performance of firms is influenced by accruals and cash flows earnings components. These studies observe that accruals manipulation could result in high or low accruals figure, which can affect firm's performance. Therefore, we include accruals to ensure a good prediction of core earnings. Again, prior research (McVay, 2006; Baker, Collins and Reitenga, 2009) indicates that costs increase is associated with changes in activity level. We therefore include the change in sales ($\Delta SALES_t$) and the percentage change in sales ($NEG_{\Delta SALES_t}$), if $\Delta SALES_t$ is less than 0, otherwise zero. In addition, we include firm level control variables and control for return on assets (ROA) because prior studies indicate that firm performance influences earnings management (Zalata and Roberts, 2015; Cohen et al. 2008; McVay, 2006). The poorer the performance of the firm, the keener will be the tendency to engage in misclassification of special items to increase reported core earnings. Thus, we anticipate a negative coefficient on ROA. Also, we include firm size (SIZE) to control for the

existing variations in accruals behaviour between large and small firms. Prior studies (Ashbaugh et al., 2003) indicate that small firms are more likely to engage in earnings manipulations than large firms. Therefore, depending on the size of the firms in the sample, we expect a negative or positive association between classification shifting and SIZE. To secure external financing, prior studies indicate that management might manage reported earnings upwards. Therefore, we control for leverage (LEV), estimated as the ratio of long-term debt to total assets because prior studies indicate that managing earnings upwards allows firms to meet debts covenants (Zhang, 2008; Badertscher, 2011). In addition, Daniel et al. (2008) report that firms with a leverage have the tendency to manage earnings because of debts covenants, therefore a positive relationship between LEV and unexpected core earnings is expected.

3.3 Data Collection

We collect financial data from the annual compustat database between 2000 and 2015. We also obtain additional data from other sources including, Annual Reports, Audit Analytics, CRSP and I/B/E/S. Firms with missing data and those with less than 15 firm-year observations to test our hypotheses and estimate expected core earnings are excluded in line with prior research (Haw et al., 2011; Fan et al., 2010; McVay, 2006). In addition, to shun bias and avoid creation of outliers resulting from the inclusion of insignificant firms in the sample, we exclude any observation with sales revenue less than \$1,000,000 (Haw et al., 2011; Fan et al., 2010; McVay, 2006) as sales is used as a deflator for the majority of the variables, thus reducing the full sample to 23,164 firm-year observations. Again, utilities firms and financial services companies have different reporting environment and regulations, therefore, their observations are deleted in line with prior studies (Zalata and Roberts, 2015; Fan et al., 2010; McVay, 2006). We classify industries using Fama and French (1997) industry classification code and our results are not influenced by the number of observations or classification code. The final sample is used to estimate the normal or expected core earnings.

(Insert Table 3 here)

Table 3 above presents descriptive statistics for our regression variables for all firms. The mean, median, standard deviation, first quartile and third quartile are reported. The dependent variable UNEXP_CE has a mean of 0.002 (approximately zero). The median of UNEXP_CE is 0.001 with a standard deviation 0.069. The mean SPITEM is positive (0.002) indicating income-decreasing special items. In addition, the mean and median of income-increasing special items are positive 0.021 and 0.011 respectively. Also, the mean (median) REL×SPITEM and REL×REVT, indicating the interaction between religiosity (REL) and income-decreasing special items (SPITEM) and religiosity and special revenue are approximately zero. The other distributions are similar and consistent with prior research (McVay, 2006; Fan et al, 2010). For example, the mean and median board size is approximately 11 and ranges between 10 and 11, which is consistent with prior studies (Zalata and Roberts, 2015; Haw et al., 2011; Lipton and Lorsch, 1992). Again, the mean board independence shows a slight surge to an approximately 67% consistent with prior studies in the U.S. (Abbot et al., reported 61%; Frankel, McVay and Soliman, 2011; reported 66 %.). Similarly, audit committee size is in line with prior studies in the U.S. (Faleye, 2011; Mangena and Pike, 2005). All other univariate statistics and distributions for all variables appear similar to McVay (2006) and Fan et al., (2010), which are winsorized at the first and 99th percentile.

4. RESEARCH DESIGN AND EMPIRICAL METHODOLOGY

4.1 Measuring (Unexpected Core Earnings) Classification Shifting

To estimate classification shifting, firstly, we focus on the allocation of expenses between core expenses and special items. Secondly, we focus on misclassification of special revenue items into total revenue to increase reported core earnings. We expect core earnings to be overstated when core expenses or revenue items are misclassified and anticipate that where managers deliberately misclassify core expenses or special revenue; unexpected core earnings will be positively associated with special items. We employ McVay's (2006) and Athanasakou et al. (2009) expectation model and make estimates of the coefficients, which are used to compute normal core earnings, equation (1) is run cross-sectionally for each industry-year using the compustat industry classifications. The unexpected core earnings (UNEXP_CE) is then

computed as the difference between reported core earnings (REP_CE) and expected core earnings (NOR_CE) for each firm.

$$NOR_CE_t = \beta_0 + \beta_1 CE_{t-1} + \beta_2 ATO_t + \beta_3 ACCRUALS_{t-1} + \beta_4 ACCRUALS_t + \beta_5 \Delta SALES_t + \beta_6 NEG_ \Delta SALES_t + \varepsilon_t, \quad (1)$$

where NOR_CE_t is the core earnings before noncore special items and depreciation, calculated as (Sales – Cost of Goods Sold – Selling, General and Administrative Expenses)/Sales. CE_{t-1} is the lagged core earnings; ATO_t is the asset turnover ratio. Again, in line with prior studies (McVay, 2006; Fan et al., 2010), we include $ACCRUALS_{t-1}$, which is prior year operating accruals and $ACCRUALS_t$, which is current year accruals. $\Delta SALES_t$ is change in sales and $NEG_ \Delta SALES_t$ is the percentage change in sales, where $\Delta SALES$ is less than 0, otherwise zero.

4.2 Classification Shifting Using Special Items Expenses and Revenue

We follow McVay (2006) model to test whether firms shift core expenses into special items or special revenue into normal revenue in order to increase their core earnings. We examine the classification of core expenses into or special revenue from special items within the income statement as an earnings management tool (McVay, 2006; Fan et al., 2010). Core expenses are relatively steady, while special items are infrequent or unusual in nature (Fan et al., 2010; McVay, 2006; Doyle et al., 2003). When firms' engage in classification shifting, unexpected core earnings increases.

$$UNEXP_CE_t = \beta_0 + \beta_1 SPITEM_t + \beta_2 REVT + \varepsilon_t, \quad (2)$$

where $UNEXP_CE_t$, is the unexpected core earnings, calculated as the difference between reported and normal or expected core earnings from equation (1). The variable of interest $SPITEM_t$ is income-decreasing special items scaled by sales and $REVT$ is total revenue scaled by total assets. When firms shift core expenses to income-decreasing special items, they increase both core earnings and income-decreasing special items. Similarly, when firms classify special revenues as normal revenues they would increase both core earnings and total

revenues (Fan et al., 2010; McVay, 2006). Therefore, we expect the coefficients β_1 and β_2 in equation 2 above to be positive. Furthermore, we interact religiosity (REL) with special items (*SPITEM*) and total revenue (REVT) to generate new variables in model (3).

$$UNEXP_{CE_t} = \beta_0 + \beta_1 SPITEM + \beta_2 REL \times SPITEM_t + \beta_3 REVT_{t-1} + \beta_4 REL \times REVT + \beta_5 CONTROL\ VARIABLES + \varepsilon_t \quad (3)$$

We exclude current accruals from equation (1). Recent studies (Fan et al., 2010; Barua and Cready, 2008; McVay, 2008) attribute McVay's estimation of expected core earnings to model bias because of the inclusion of contemporaneous accruals in the formation of expected core earnings values. These studies argue that the inclusion of current accruals results in the creation of a mechanical bias leading to a positive association between unexpected core earnings (dependent variable) and special items (independent variable). This therefore, suggests that the misclassification of core earnings into special items reported by McVay (2006) is not classification shifting but symbolic of model bias. Thus, the Fan et al (2010) model without contemporaneous accruals is shown below:

$$CE_t = \beta_0 + \beta_1 CE_{t-1} + \beta_2 ATO_t + \beta_3 ACCRUALS_{t-1} + \beta_5 \Delta SALES_t + \beta_6 NEG_ \Delta SALES_t + \varepsilon_t \quad (4)$$

In the further supplemental analyses, we estimate the validity and results for both McVay (2006) and Fan et al (2010) models to assess the impact of religiosity on classification shifting and interact religiosity with corporate governance variables, BIG4 auditors and audit tenure.

4.2. Testing the Relationship between Religiosity and Classification Shifting

We use equation 3 and include the interactions between REL and SPITEM, interaction between REL and REVT as well as firm-level control variables as shown in equations (5), (6) and (7) below. The generic regression model takes the following form.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 REL \times SPITEM + \beta_4 SIZE + \beta_5 LEV + \beta_6 CASFO + \beta_7 ROA + \beta_8 BMV + \beta_9 BIG4 + \beta_{10} ANALYST_FOL \quad (5)$$

$$UNEXP_CE = \beta_0 + \beta_1 REVT + \beta_2 REL + \beta_3 REL \times REVT + \beta_4 SIZE + \beta_5 LEV + \beta_6 CASFO + \beta_7 ROA + \beta_8 BMV + \beta_9 BIG4 + \beta_{10} ANALYST_FOL \quad (6)$$

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 REL \times SPITEM + \beta_4 REVT + \beta_5 REL \times REVT + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST_FOL \quad (7)$$

To test hypotheses 1a and 1b, we examine the coefficient of the religiosity of firms' environment (REL), the interaction between REL and SPITEM (REL × SPITEM) in equation (5). Again, we examine the coefficient of the interaction between REL and REVT (REL × REVT) in equation (6) and the combine effect is shown in equation (7). We expect religiosity to mitigate managers' incentive to misclassify core expenses or special revenue to increase reported core earnings because of ethical and moral issues involve in the religious social norm. Therefore, we anticipate a negative coefficient on REL, RELSPITEM and RELREVT.

Again, we test hypothesis 2 to assess the impact of REL, RELSPITEM and RELREVT on UNEXP_CE where the firms have corporate governance mechanism in place. Initially, we control for corporate governance variables and test the interaction between REL and corporate governance variables. In particular, we use board size (BODSIZE), number of independent directors (BODIND) and audit committees size (AUCOM) as proxies for corporate governance in line with prior studies (Zalata and Anderson, 2015; Haw et al., 2011). The interactions between REL and governance variables give the following three new variables. *REL×BODSIZE*; *REL×BODIND* and *REL×AUCOM*. Note that board and audit committee characteristics are tested separately to avoid multicollinearity problems. We predict significant and negative relationship between classification and *REL×BODSIZE*; *REL×BODIND* and *REL×AUCOM*. The following regression model is used.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 REL \times SPITEM + \beta_4 REVT + \beta_5 REL \times REVT + \beta_6 BODSIZE + \beta_7 BODIND + \beta_8 AUCOM + \beta_9 REL \times BODSIZE + \beta_{10} REL \times BODIND + \beta_{11} REL \times AUCOM + \beta_{12} SIZE + \beta_{13} LEV + \beta_{14} CASFO + \beta_{15} ROA + \beta_{16} BMV \quad (8)$$

5. Empirical Regression Results and Discussions

To assess whether religiosity is related to classification shifting, we initially investigate whether U.S. firms are currently engaged in classification shifting as reported by McVay, (2006) and corroborated by Fan et al., (2010). In Table 4, initially, we include only SPITEM in Model (2) to provide basic regression results. The coefficient on SPITEM is positive and

significant (*SPITEM*; p-value = 0.002), suggesting that some firms in the U.S. inflate core earnings by misclassifying core expenses into special items. Again, when we include only REVT in Model (2), the coefficient on REVT is also positive and significant (REVT; p-value = 0.001). Finally, we include both SPITEM and REVT in Model 2 and observe a significant positive relationship between unexpected core earnings and both SPITEM and REVT. The result indicates that when revenue is shifted upward or core expenses are shifted downwards on the income statement, unexpected core earnings increases (UNEXP_CE), suggesting that firms' do not only report true and fair performance but are involved in misclassification of special items to increase reported core earnings. This is consistent with prior findings that unexpected core earnings increases with special items. Again, firms with huge write-offs and restructuring charges tend to perform poorly but the converse is equally true for firms with special items (McVay, 2006; Fan et al., 2010).

(Insert Table 4 here)

In hypothesis 1, we examine the association between religiosity (REL) and unexpected core earnings (UNEXP_CE) as well as the interaction between REL and SPITEM as the variable of interest (REL×SPITEM). We run regressions using fixed effects to account for heterogeneity across firms and the results are shown in Table 5, Model (5) below. We find that religiosity is negatively related to UNEXP_CE, (REL; p-value = 0.004). Similarly, we find a significantly negative relationship between REL×SPITEM and UNEXP_CE (REL×SPITEM, p-value = 0.001). In Table 5 Model (6), we interact REL with REVT and report the regression results of UNEXP_CE on REL x REVT. The results show a significant negative relationship between UNEXP_CE and REL x REVT (p-value = 0.000). Again, we include all the variables of interest in Model (7) and re-run our regression. The results are consistent with previous findings as shown in Table 5. That is, religiosity mitigates managers' incentive to misclassify revenue items upwards to increase reported core earnings. Therefore, our results suggest that religious managers possibly deem it unacceptable, unethical and morally wrong to engage in classification shifting to boost core earnings to signal managers' inside information to investors, raise the expectation of the market or beat/meet earnings benchmarks. Perhaps, as indicated by prior studies (McVay, 2006; Fan et al., 2010) this might be due to the limited scrutiny of auditors and other external monitors often associated with classification shifting. The result is also consistent with prior studies (McGuire et al 2012), which observe that

accruals earnings management are negatively related to the religiosity of the firms' environment. This is a noble contribution to literature as our study is the first to attempt an association between classification shifting and religiosity of the firms' environment

(Insert Table 5 here)

In addition, we find that the firm-level control variables are associated with UNEXP_CE in line prior studies (Zalata and Roberts, 2015; Haw et al., 2011). For example, the coefficient of ROA is negative and significantly at (1%) related to UNEXP_CE, suggesting that firms engage in misclassification when they perform poorly. Again, market book value (MBV) is negative and significantly related to UNEXP_CE, suggesting that firms are less likely to engage in classification shifting when the book value is high. Similarly, SIZE is negative but insignificantly associated with UNEXP_CE, indicating that the sample includes larger firms than smaller firms. Ashbaugh et al. (2003) observe that small firms are more likely to manipulate reported profits than large firms. Thus, the impact of classification shifting decreases, the greater the size of the firm. Again, we observe a positive and significant relationship at 5% level between leverage (LEV) and UNEXP_CE. DeFond and Jiambalvo (1994) indicate that managers manipulate reported earnings upwards to meet debt covenants or contracts. The BIG4 and analyst following exhibit their expected sign and significant/insignificant levels in line with prior studies (McVay, 2006; Fan et al., 2010; McGuire et al. 2012).

5.1 Testing Religiosity Across Areas

The above results and analyses have provided clear evidence that religiosity of the firm's environment influences classification shifting negatively and significantly. However, the analyses do not reveal the extent to which the level (high or low) of religiosity in an area will affect classification shifting. We test this by empirically breaking down the datasets into two samples in line with prior research (McGuire et al., 2012), comprising of high and low religious areas and define areas with above (below) the median religiosity figure of 52% in our sample

as having high (low) religiosity respectively. We expect that a highly religious environment will influence classification shifting more significantly than areas with low religiosity figures³.

(Insert Table 6 here)

Table 6 above, presents the results of the analysis of high and low religious areas on managers classification shifting. Interestingly, we observe a strong negative at 1% significant level ($P < 0.01$) between RELSPITEM and UNEXP_CE in high religiosity areas. Similarly, there is a negative relationship at 1% significance level ($P < 0.03$) between REVT and UNEXP_CE at the high religiosity areas. In addition, the study notes that the association between REL×SPITEM, REL×REVT and UNEXP_CE at the low areas is negative at 5% significance level. This reinforces the findings that religious social norms influences classification shifting, and that the effect is acute especially in highly religious environment, consistent with prior studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2009).

5.2 Religiosity, Corporate Governance Variables and Classification Shifting

We test hypothesis 2 to assess the interactive effect between religiosity and governance variables on unexpected core earnings to ensure that previous findings are robust in the presence of internal corporate governance. We include BODSIZE, BODIND and AUCOM in line with prior research (Zalata and Roberts, 2015). Thereafter, we focus on the interaction between REL×BODSIZE, REL×BODIND and REL×AUCOM to assess their impact on UNEXP_CE.

(Insert Table 7 here)

As indicated in Table 7, we find a significant negative relationship (at 1% level, p -value = 0.001) between REL×SPITEM and UNEXP_CE. Again, the coefficient on REL x REVT and UNEXP_CE is negative and significant (-0.13; -3.82). Consistent with prior research (Zalata and Roberts, 2015; Haw et al., 2011; Sun and Cahan, 2009), the results show that there is a negative association at 5% significant level between UNEXP_CE and BODSIZE, and between UNEXP_CE and BODIND at 10% significant level, suggesting that corporate governance mechanism within the firms' in our sample mitigates misclassification of core expenses or

³ We break our sample into high and low religiosity areas because prior studies (McGuire et al., 2012; Callen et al., 2011; Dyreng et al., 2009) indicate that a highly religious environment has significant influence on attitudes and behaviour of the people living in that environment.

special revenue items. The relationship between UNEXP_CE and AUCOM is negative but not significant. With regards to the interactive variables, we also find significant (1%) negative association between REL×BODSIZE, REL×BODIND, REL×AUCOM and UNEXP_CE. This suggests that REL complements BODSIZE, BODIND and AUCOM to mitigate classification shifting, and the impact becomes relatively more pronounced in a religious environment. This is consistent with our findings that managers have less motivation to misclassify core expenses or revenue items in an environment where religious social norms influence managerial behaviour and decisions. Therefore, our initial results are supported that religiosity complements existing monitoring mechanism put in place by management.

5.3 Religiosity and Classification Shifting in Rural and Urban Areas

To test hypothesis 3, we disaggregate the sample into rural and urban areas. Prior studies observe that earnings quality is associated with firms in rural areas (McGuire et al. 2012; Ucran, 2007). This point is further strengthened when firms in rural areas are audited by the BIG4 auditors and have strong internal controls (Bayley and Taylor, 2007; Dechow et al., 2010). To indicate that religious social norms have influence on firms located in both urban and rural areas and that our results are not solely due to the lower and higher earnings quality of the firms located in urban and rural areas respectively, we break the sample into urban and rural areas. In line with Loughran and Schulz (2005)⁴, we classify Metropolitan Statistical Area (MSA) in each county with over five million population as urban area and repeat the main test using the urban and rural subsamples.

(Insert Table 8 here)

Table 8 above, presents the results of the analyses of the relationship between REL×SPITEM, REL x REVT and UNEXP_CE for firms located in urban and rural areas. Indeed, the conclusions remain the same using both rural and urban sub-samples. We find that both

⁴ Loughran and Schulz (2005) define urban areas as the most-populated areas with an average of over five million residents in the MSA within the county. We replicate our analysis based on their definition and find that the inferences remain the same.

REL×SPITEM and REL× REVT are negative and significantly (at 1% level, p-value = 0.004) associated with UNEXP_CE, suggesting that the negative association between religious social norms and misclassification is not solely influenced by the high or low earnings quality associated with rural or urban areas. Note though that the magnitude of the interaction terms REL×SPITEM and REL× REVT, also the REL, is higher in the urban areas compared to rural areas. Thus, religious social norms are more effective to reduce classification shifting in highly populated areas. Overall, the findings are robust and clearly demonstrate that religiosity of the firms' environment mitigates classification shifting.

6. Robustness Analysis

6.1 Validity of McVay's (2006) Model

In Table 9, we estimate the results for both Athanasakou et al. (2009) and Fan et al. (2010) classification shifting models. To employ Fan et al. (2010) model, we drop contemporaneous accruals from McVay's model. We find that UNEXP_CE is positive and significantly (1%; p-value =0.002) related to SPITEM and REVT. Again, the coefficients of both REL×SPITEM and REL× REVT are still negative and significantly ($P < 0.001$) associated with UNEXP_CE. The results are similar to McVay's (2006), suggesting that our initial findings of misclassification of core expenses and revenue items rooted in McVay's (2006) expectation model is bias free. Furthermore, in line with Athanasakou et al (2009), we surrogate total accruals by working capital accruals in both McVay's (2006) and Fan et al (2010) expectation models. Athanasakou et al. (2009) observe that the substitution of working capital accruals is important because total accruals in the McVay's (2006) model comprise of depreciation expenses and special items accruals, which are likely to introduce bias. Therefore, we re-estimate the regression results using working capital accruals but our results as indicated by Athanasakou et al., (2009) model and inferences remain similar to the initial results.

(Insert Table 9 here)

6.2 Auditor Characteristics, Religiosity and Classification Shifting

Prior studies (Haw et al., 2011; Francis and Yu, 2009; Francis and Wong, 2008; Fan and Wong, 2005; Myers, Myers and Omer, 2003) observe that auditor characteristics (BIG4 and auditor tenure) are negatively associated with earnings management since high quality auditors complement existing corporate governance mechanism. Haw et al. (2011) find that in East Asia classification shifting decreases with firms audited by the BIG4 and external auditors with short tenure are associated with lower earnings quality. Similarly, Myers et al. (2003) find that longer auditor tenure is a function of higher quality reporting and lower misclassification management. In our previous analyses, we control for BIG4 and analyst following but observe insignificant negative relationship between UNEXP_CE and BIG4 auditors. Therefore, the study assesses the extent to which the interaction between religiosity and auditor characteristics impact classification shifting.

Panel A in Table 10 indicates the regression results when we include only income-decreasing special items (SPITEM) in Model (5), the results show a positive and significant co-efficient of (0.14, $t = 2.03$). However, the coefficient on SPITEM \times BIG4 is negative but not significant (-0.04, $t = -1.09$). We include the interaction between BIG4 and REL in Model (5), the coefficient on REL \times BIG4 is negative and significant (-0.13, $t = -1.94$), similarly the interaction among REL \times SPITEM \times BIG4 shows a significant and negative coefficient of (-0.25 $t = -2.21$), indicating that religiosity complements BIG4 auditors and existing monitoring mechanism to mitigate income-decreasing classification shifting. In Model (6), we include only special revenue, the coefficient on REVT is positive and significant (0.06, $t = 2.05$), but the coefficient on REVT \times BIG4 is negative but not significant (-0.03, $t = -1.23$). Thereafter, we interact REL, REVT and BIG4, the results show that the coefficient on REL \times REVT \times BIG4 is negative and significant (-0.18, $t = -2.14$). When we include both REVT and SPITEM in Model (7), the results and inferences remain the same. The coefficient on SPITEM \times BIG4 is (-0.05, $t = -1.64$) and REVT \times BIG4 is (-0.04, $t = -1.36$) still negative but not significant. The coefficient on REL \times SPITEM \times BIG4 is (-0.17, $t = -1.81$) and REL \times REVT \times BIG4 is (-0.16, $t = -1.98$) both are negative and significant at 10%. Overall, we report some evidence that firms with BIG4 auditors in relation to religious social norms engage less in upward and downward classification shifting. Note though that there is some variability in the significance of such effect.

(Insert Table 10 here)

In Table 10, Panel B, the study shows regression results to indicate whether or not audit tenure, interaction between audit tenure (TEN in Table 10 captures the number of years the auditor has been with the company) and religiosity affect classification shifting. We include only SPITEM in Model (5) and the coefficient is positive and significant (0.33, $t = 2.94$) while the result for SPITEM×TEN is negative but not significant (-0.06, $t = -1.38$) suggesting that audit tenure might not mitigate classification shifting. We include the interaction between REL and TEN as well as REL, SPITEM and TEN in Model (5). The coefficient on REL×TEN is negative and significant (-0.04, $t = -2.08$) and the coefficient on REL×SPITEM×TEN is also negative and significant (-0.05, $t = -2.45$) suggesting that classification shifting is less in a religious social norm environment with firms having a longer tenure relationship with their auditors. However, long audit tenure alone does not mitigate misclassification but religiosity complements long tenure and the existing monitoring mechanism in the firms (McGuire et al. 2012). Again, we include REVT in Model (6), the coefficient is positive and significant (0.02, $t = 3.09$) and the coefficient on REVT×TEN is negative and significant (-0.09, $t = -2.40$). The results for REL×TEN and REL×REVT×TEN are (-0.08, $t = -1.82$) and (-0.06, -2.31) respectively. We include both SPITEM and REVT in Model (7) and the results remain the same. The overall results indicate that classification shifting is subdued in a religious social norm environment and that religiosity complements the existing monitoring mechanism such as corporate governance and audit practices.

6.3 Testing Misclassification in Pre and Post Sarbanes-Oxley Act 2000 and Financial Crises

To ensure that the results of the study are not influenced by confounding effects of various events that took place during the study period, the study examines the extent to which religiosity affects misclassification of special items in the pre and post SOX or financial crises and stock market crash period. To achieve this, the study breaks the data into the period prior to the implementation of the Sarbanes-Oxley Act (SOX, 2000-2002), the period prior to the financial crises and stock market crash (2003-2009) and the post financial crises period (2010-2015). The study expects religiosity to complement SOX and other monitoring mechanisms. Prior studies (Leuz and Christian, 2007; Engel, Ellen, Hayes and Wang, 2006; Jain and Rezaee, 2006; Bushee and Leuz, 2005) indicate that the SOX enactment brought about an improvement in the reliability of financial information, reduction of financial statement fraud, strengthening of corporate governance mechanism and improvement in the liquidity of firms. Again, Cohen et al., (2008) observe that the level of real activities earnings management increased after the passage of SOX but decreased prior to SOX. Conversely, they find that accrual-based earnings management activities were high prior to the passage of SOX, suggesting that firms engage in more real activities than accruals based earnings management after the passage of the SOX. Therefore, this study examines whether or not misclassification occurred pre and post the passage of SOX in 2002.

(Insert Table 11 here)

The regression results in Table 11 show that firms in the U.S engage in misclassification of special items to boost reported core earnings in pre and post SOX and financial crises period. From the results, there was a positive relationship at 1% significant level between SPITEM, REVT and UNEXP_CE across all the levels. Prior to the enactment of SOX in 2002, the results show a positive and significant co-efficient of (0.32, $t = 4.52$) between SPITEM and UNEXP_CE. Similarly, the post SOX and financial crises period show a positive and significant co-efficient of (0.21, $t = 2.48$ and 0.18, $t = 2.38$) between SPITEM and UNEXP_CE respectively. In addition, the relationship between REVT and UNEXP_CE is also significantly positive in both pre and post SOX and financial crises period (0.19, $t = 3.98$; 0.15, $t = 2.58$ and 0.12, $t = 2.18$; respectively), suggesting that some firms in the U.S. are engaged in upward

classification shifting of special revenue to boost reported core earnings. In relation to whether religiosity impacts misclassification in the pre or post SOX and financial crises period, the results show that REL x SPITEM and REL x REVT are negatively related to UNEXPE_CE at 1% significant level. However, the coefficients and t-values (REL x SPITEM AND UNEXP_CE, -0.17, t = -3.64; -0.22, t = -3.92; -0.20, t = -3.87; REL x REVT and UNEXP_CE, -0.07, t = -3.26; -0.08, -3.47; -0.09, -3.91; respectively) are significant at the period after the enactment of SOX and financial crises period, suggesting that religiosity complements SOX and other monitoring systems to mitigate misclassification of core expenses and special revenue after the enactment of SOX in 2002. The results indicate that classification shifting of special expenses and revenue items occur in firms the U.S. but decreases in the religious social norms environment where there is external monitoring.

6.4 Geographical Dispersion

Furthermore, the analyses above have been based on the assumption that religiosity in the geographic area surrounding the firm's headquarters has influence on misclassification of core expenses and special revenue to boost reported core earnings. However, McGuire et al (2012) indicate that firms are geographically dispersed with geographic segments located in areas far away from their corporate headquarters. Some of these segments have autonomous structures which allow them to make decisions on behalf of corporate headquarters. Therefore, it's possible that the religious social norms in the area surrounding the corporate headquarters will have no influence on the segments financial reporting and classification shifting behaviour. This is possible because the segmental reports and decisions are more likely to be influenced by the religious social norms of the area where the segments are located. Consequently, the study creates two sub samples in line with the geographic segment data from the compustat to assess whether the results differ based on the geographic dispersion of the firm.

Following prior research (McGuire et al., 2012), the study utilises the geographic segment data from the compustat annual database. Thereafter, the study finds the mean and median of the segments and observes that 2.05 represents the mean segments, the median segments is 1.04 and the maximum number of geographic segment is 35. Therefore, the study classifies firms with two or less geographic segment as being centralized and those firms with more than two

geographic segments as geographically dispersed. Table 12 shows the regressions results of geographically centralised and dispersed segment regressions analysis. The study finds that the association between religion and unexpected core earnings is significantly negative at 1% in the geographically centralised sample, consistent with the earlier findings. For example, the coefficient on both REL x SPITEM and REL x REVT are negative and significant. In contrast, the relationship between religiosity and unexpected core earnings is negative but not significant in the geographically dispersed sample. This result is consistent with initial findings suggesting that the geographic dispersion influences the extent to which religious social norms subdue expense misclassification to increase reported core earnings. Furthermore, the results confirm that religious social norms in the firm's environment has negative impact on expense misclassification into special items.

(Insert Table 12 here)

The results in Table 12 for geographically centralised and dispersed segments are not perfectly comparable because of the differences in the sample size. To minimize selection bias, noise and check whether the difference in sample size has effects on the inferences, the study repeats the centralised regressions using 4541 firm year observations to be consistent with geographic dispersed segment sample. Table 13 provides the results which are quite similar and consistent with the previous results reported in Table 12. Again, SPITEM is positive significantly related to UNEXP_CE. In addition, the coefficients on both REL x SPITEM and REL x REVT are negative and significant at 99% confidence level. This suggests that the results of the study are not prone or subject to sample selection bias.

(Insert Table 13 here)

6.5 Alternative Measure of Religiosity

Although our measure of religious social norm is supported by prior studies (McGuire et al. 2012; Callen et al 2011; Grullon et al. 2010), we conduct further robustness tests to ensure that our results are free from potential bias and do not rely on generalisation of religious datasets across several years. We use different source of religious datasets collected by Gallup survey for the study period.⁵ We run our regressions for only the twenty U.S. States with available Gallup religious datasets. Interestingly, we find that the results presented in Table 14 are consistent with our initial results. Our inferences still remain the same when religiosity was measured by a simple aggregate of the responses to the three Gallup questions on religion. Specifically, the coefficients on RELxSPITEM and RELxREVT are negative and significant (-0.13, $t = -4.02$) and (-0.11, $t = -2.89$) respectively, indicating that religiosity mitigates misclassification. Overall, the results suggest that religiosity complements existing monitoring systems put in place by management to mitigate classification-shifting behaviour. This is consistent with prior findings by McGuire et al., (2012) which indicate that religious managers deem accruals-based earnings management as unethical, not feasible, morally unacceptable and inappropriate. Our results indicate that managers have disincentive to signal information to investors to increase reported core earnings.

⁵ Thereafter, we take a sub-sample of our original data based on the twenty most and least religious states in the U.S. as reported by Gallup survey in Table 2. We surrogate our original religious datasets by Gallup religious datasets for the twenty U.S. States and merge them into the compustat financial data file using the state code identifiers.

7. Conclusion

This study examines economic or opportunistic motivation to misclassification of special items in a religious social norm environment. We contribute to financial reporting and earnings management literature and provide evidence that religiosity is negatively associated with upward and downward classification shifting and that managers have little economic or opportunistic motivation to misclassification in a religious environment. Religiosity appears to be more effective to combat classification shifting in urban and highly religious areas. In addition, our study further shows that religiosity complements corporate governance, for example, board size, board independence, BIG4 auditors and audit tenure to mitigate classification shifting. The study has several policy and practical implications. Firstly, the findings are consistent with social norm theory as social norms are reported to shape the behaviour and attitudes of managers in corporate decision-making. The study highlights the complementary role of religion and the associated interaction between religiosity, corporate governance and audit practices. Therefore, it provides a platform for management to strengthen the existing corporate governance and audit practices. This is important because religion is scarcely discussed in secular organisations but an understanding of the role of religion in shaping corporate financial reporting will help policy decisions to create value for shareholders. The present results are useful for regulators, external monitors and investors as it indicates that religion strengthens the existing monitoring mechanism put in place by management to mitigate classification shifting.

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APPENDICES

Appendix A: The following table shows the measurement of variables in the study:

Variables	Proxy	Definition
Religiosity	<i>REL</i>	Strength of religiosity for each U.S. county measured by Association of Statisticians of American Religious Bodies (ASARB) surveys. The results of these surveys are published on the website of Association of Religion Data Archive (ARDA). The average of each county religiosity score is weighted by the county's population.
Normal Core Earnings	NOR_CE	This is the core earnings that is actually expected to occur in the normal course of business activity devoid of classification shifting. The study follows McVay (2006) expectation model in equation 1.
Reported Core Earnings	REP_CE	Estimated as sales – cost of goods sold – selling, general and administration expenses. Depreciation and Amortization are excluded from Cost of Sales, Selling, General and Administrative Expenses.
Unexpected Core Earnings	UNEXP_CE	Is the difference between reported core earnings and normal or expected core earnings (McVay, 2006).
Special Items	SPTIEM	Income-Decreasing Special Items as a Percentage of Sales, calculated as [Special Items (#17)]/Sales (#12) when Special Items are income-decreasing, and 0 otherwise (McVay, 2006)
Total Revenue	REVT	Total revenue scaled by total assets
Asset Turnover	ATO	Sales scaled by average net operating assets. Where net operating assets is the difference between operating assets and operating liabilities. Operating assets = Total assets – Cash and Cash equivalent. Operating Liabilities = Total assets – Total debt - Book value of common equity – Preferred equity – Minority interests.
Percent change in sales	Δ Sales	$(Sales_t - Sales_{t-1}) / Sales_t$
% change in Sales	NEG_ΔSales	where ΔSALES is less than 0, otherwise zero
Cash flow from operation	CASFO	Is the cash flow from operational activities scaled lagged total assets
Total Assets	TA	Measured as total Non-current assets plus total current assets
Size of the Firm	SIZE	The natural log of total assets
Return on Assets	ROA	Measured as net income before extraordinary items divided by average total assets
Leverage	LEV	Financial leverage, measured as total debts scaled by total equity

Market to Book Value	MBV	Measured as total assets divided by market capitalization
Reported Loss	LOSS	An indicator variable that equals 1 if income before extraordinary items was negative in the current or previous two fiscal years, and 0 otherwise;
Audit Committee Presence	AUCOM	A dummy variable coded as 1 if the company has an audit committee, otherwise zero.
Independent Board	BODIND	Calculated as the number of independent directors divided by the total number of directors on the board. Defined as non-executive directors holding less than 5% of the voting securities and having no direct or indirect interest or relationship that could reasonably influence their objective judgment and decision making
Board Size	BODSIZE	Total number of directors on the board
Religiosity interacts Board size	RELBODSIZE	Religiosity multiplied by Board Size
Religiosity interacts Board independence	RELBODIND	Religiosity multiplied by Board independence
Religiosity interacts Audit Committee	RELAUCOM	Religiosity multiplied by Audit committee
BIG4 Auditors	BIG4	Is an indicator variable that equals 1 if a company's auditing firm is one of the BIG4 auditors, otherwise zero (0)
Audit Tenure	TEN	The natural log of the number years the auditor has been with the company.
Analysts Following	ANA_FOL	Natural log of the number of analyst following the firm
Total Accruals	TAC	Difference between earnings before extraordinary items and discontinued operations and the cash flow from operational activities scaled by lagged total assets
Operating Accrual	ACCRUALS	Operating Accrual = (Net income before extraordinary items – cash flow from operation)/Sales.
Working Capital Accruals	WC_ACCRUALS	Measured as earnings before extraordinary items plus depreciation and amortisation minus cash flow from operational activities.

Table 1: Descriptive Statistics for Religiosity

Variable	Mean	Std. Dev.	Q1	Median	Q3	Skewness	Kurtosis
REL	53.5	18.07	36.27	52.47	63.33	0.83	2.69
RELAdh – 2000	53	18.6	39.4	51.1	64.7	0.74	2.98
RELAdh – 2010	48	15.6	24.6	46.8	52.3	0.88	2.68

Notes: *Religiosity* (REL) = is the variable of interest, measured as the average of US counties religiosity score weighted by the county's population for the period, 2000 and 2010. RELAdh = a measure of religious adherence for US counties in, 2000 and 2010. Association of Statisticians of American Religious Bodies (ASARB) collects religiosity dataset, which are published by the Association of Religion Data Archive (ARDA).

Table 2: Comparison of Most and Least Religious States in the US

Ten Most Religious States in US	Ranking Top States	Ten Least Religious States in US	Ranking Bottom States
Mississippi	1	Vermont	1
Utah	2	New Hampshire	2
Alabama	3	Maine	3
Louisiana	4	Massachusetts	4
South Carolina	5	Oregon	5
Tennessee	6	Nevada	6
Georgia	7	Washington	7
Arkansas	8	Connecticut	8
North Carolina	9	Hawaii	9
Oklahoma	10	District of Columbia	10

Notes: Table 2 shows comparison of most and least religious states in the US compiled by Gallup. Since 1965, Gallup has conducted interviews about US adults' religiosity. The results over the years suggest that religious attitudes are very stable, consistent with ASARB studies. The percentage of US adults who consider religion to be important according to Gallup are as follows: 1990 = 58 percent; 2000 = 58 percent; 2005 = 55 percent; 2006 = 56 percent; 2007 = 56 percent; 2008 = 54 percent; 2009 = 56 percent; 2010 = 56 percent

Table 3
Descriptive Statistics for the Full Sample

Variables	Mean	Median	Standard Deviation	25%	75%
SALES (in M)	1627.363	202.597	3441.067	30.883	1159.031
UNEXP_CE	0.002	0.003	0.069	-0.003	0.004
SPITEM	0.002	0.001	0.012	0.001	0.008
REVT	0.021	0.011	0.061	0.001	0.029
RELxSPITEM	-0.004	-0.003	0.002	-0.001	0.003
RELxREVT	0.005	0.003	0.159	0.000	0.109
BODSIZE	11.428	11.303	4.196	9.597	13.245
BODIND	0.670	0.720	0.078	0.650	0.770
AUCOM	5.458	5.256	2.284	4.125	5.502
RELxBODSIZE	6.905	6.960	1.862	6.226	7.558
RELxBODIND	0.081	0.108	0.033	0.055	0.32
RELxAUCOM	3.567	3.744	1.097	3.726	3.834
ATO	2.143	1.782	1.531	0.950	2.981
CHANGE_ATO	0.029	0.004	0.376	-0.135	0.141
ACCRUALS	-0.019	0.028	0.201	-0.035	0.077
ACCRUALS _{t-1}	-0.026	0.029	0.254	-0.030	0.078
ΔSALES	0.096	0.058	0.300	-0.055	0.191
NEG_ΔSALES	0.075	0.043	0.359	-0.048	0.176
SIZE	5.680	5.190	1.760	3.390	6.860
LEV	0.151	0.101	0.162	0.001	0.252
CASFO	0.072	0.089	0.156	0.045	0.141
ROA	-0.311	0.042	0.141	-0.032	0.084
MBV	2.012	1.754	1.212	1.024	2.912

Notes: UNEXP_CE = computed as the difference between reported core earnings (REP_CE) and expected core earnings (NOR_CE) for each firm (McVay, 2006). REP_CE is the reported core earnings estimated as sales – cost of goods sold – selling, general and administration expenses. Depreciation and Amortization are excluded from Cost of Sales, Selling, General and Administrative Expenses. BODSIZE = total number of directors on the board; BODIND = calculated as the number of independent directors divided by the total number of directors on the board; AUCOM = audit committee RELxBODSIZE = religiosity multiplied by board size; RELxBODIND = religiosity multiplied by board independence; RELxAUCOM = religiosity multiplied by audit committee. REVT is total revenue scaled by total assets. RELxREVT =religiosity multiplied by total revenue scaled by total assets. ATO is Sales scaled by average net operating assets. Where net operating assets is the difference between operating assets and operating liabilities. Operating assets = Total assets – Cash and Cash equivalent. Operating Liabilities = Total assets – Total debt - Book value of common equity – Preferred equity – Minority interests. ACCRUALS is calculated as (Net income before extraordinary items – cash flow from operation)/Sales. ΔSales is (Salest – Salest-1)/ Salest and NEG_ΔSales is where ΔSALES is less than 0, otherwise zero. SIZE is the natural log of total assets, LEV is the financial leverage measured as the total debts scaled by total equity,

CASFO is the cash flow from operational activities scaled lagged total assets ROA is measured as net income before extraordinary items divided by average total assets and MBV is measured as total assets divided by market capitalization. All other variables are defined above and in the Appendix A

Table 4: Regression of Unexpected Core Earnings on Special Expenses and Special Revenue

Variables	Dependent Variable = UNEXP_CE					
	SPITEM		REVT		SPITEM & REVT	
	Coefficient	t-values	Coefficient	t-values	Coefficient	t-values
Intercept	0.002	0.33	-0.010	-2.47**	-0.08	-2.30***
SPITEM	0.31	3.11***			0.46	4.20***
REVT			0.13	3.65***	0.14	3.57***
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23,164	23,164	23,164	23,164	23,164	23,164
Adjusted R ²	0.05	0.05	0.06	0.06	0.09	0.09

Notes: We use *,**,*** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, *REVT* is total revenue scaled by total assets. The parameters are estimated based on the following model: All variables are defined in appendix.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REVT.$$

Table 5: Regression of Unexpected Core Earnings on Special Items Expenses and Special Revenue

Dependent Variable = UNEXP_CE						
Variables	Model (5)		Model (6)		Model (7)	
	Coefficient	t-values	Coefficient	t-values	Coefficient	t-values
Intercept	-0.07	-1.61	0.06	1.74*	-0.04	-1.30
SPITEM	0.28	3.78***			0.16	3.41***
REVT			0.16	4.35***	0.12	3.97***
REL	-0.34	-3.74***	-0.30	3.38**	-0.28	-2.76**
REL×SPITEM	-0.23	-2.92***			-0.19	-2.56**
REL×REVT			-0.09	-7.88***	-0.08	-4.51**
SIZE	-0.03	-1.45	-0.05	-1.17	-0.06	-1.19
LEV	0.07	2.26**	0.09	2.53**	0.10	2.68**
CASFO	0.09	1.10	0.02	1.07	0.05	1.15
ROA	-0.06	3.37***	-0.16	2.37**	-0.18	2.39**
MBV	-0.03	-2.07**	-0.04	-1.77*	-0.06	-1.78*
BIG4	-0.04	-1.62	-0.03	-1.22	-0.04	-1.28
ANA_FOL	-0.04	-1.56	-0.02	-1.36	-0.04	-1.42
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23,164	23,164	23,164	23,164	23,164	23,164
Adjusted R ²	0.16	0.16	0.18	0.18	0.24	0.24

Notes: We use *,**,*** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, *REVT* is total revenue scaled by total assets, *REL* = religiosity of the firms' environment, *REL×SPITEM* = interaction between religiosity and income-decreasing special items. *REL×REVT* = interaction between religiosity and total revenue scaled by total assets. *SIZE* is the natural log of total assets, *LEV* is the financial leverage measured as the total debts scaled by total equity, *CASFO* is the cash flow from operational activities scaled by lagged total assets. *ROA* is measured as net income before extraordinary items divided by average total assets and *MBV* is measured as total assets divided by market capitalization. *BIG4* is an indicator variable that equals 1 if a firm is audited by the *BIG4*, otherwise zero and *ANALYST_FOL* represents the natural log of the number of financial analyst following the firm. The parameters are estimated based on the following model: All variables are defined in appendix.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST_FOL$$

Table 6: Classification Shifting in High and Low Religiosity Areas

Variables	HIGH		LOW	
	Coefficient	t-values	Coefficient	t-values
Intercept	-0.08	-0.060	-0.03	-0.077
SPITEM	0.08	3.16***	0.04	2.45**
REVT	0.18	3.85***	0.09	2.20**
REL	-0.36	-3.09***	-0.07	-1.82*
REL×SPITEM	-0.26	-3.28***	-0.06	-2.04**
REL×REVT	-0.14	-3.09***	-0.08	-2.27**
SIZE	-0.08	-2.45**	-0.05	-2.04**
LEV	0.08	1.61	0.08	1.32
CASFO	0.15	2.91**	0.11	0.62
ROA	-0.05	-2.18**	-0.12	-1.78*
MBV	-0.06	-1.69*	-0.05	-1.19
BIG4	-0.04	-1.54	-0.03	-0.89
ANA_FOL	-0.03	-1.21	-0.02	-1.02
Year Fixed Effects	Yes	Yes	Yes	Yes
Adjusted R ²	0.27	0.27	0.22	0.22
Observations	14,124	14,124	8,566	8,566

Notes: We use *, **, *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, *REVT* is total revenue scaled by total assets, *REL* = religiosity of the firms' environment, *REL*×*SPITEM* = interaction between religiosity and income-decreasing special items. *REL*×*REVT* = interaction between religiosity and total revenue scaled by total assets. *SIZE* is the natural log of total assets, *LEV* is the financial leverage measured as the total debts scaled by total equity, *CASFO* is the cash flow from operational activities scaled by lagged total assets. *ROA* is measured as net income before extraordinary items divided by average total assets and *MBV* is measured as total assets divided by market capitalization *BIG4* is an indicator variable that equals 1 if a firm is audited by the *BIG4*, otherwise zero and *ANALYST_FOL* represents the natural log of the number of financial analyst following the firm.. The parameters are estimated based on the following model: All variables are defined in appendix.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST_FOL$$

Table 7: Impact of Religiosity and Governance Variables on Classification Shifting

Dependent Variable = UNEXP_CE		
	Coefficient	t-value
Intercept	-0.08	-1.37
SPITEM	0.06	2.94***
REVT	0.19	3.50***
REL	-0.12	-3.64***
RELxSPITEM	-0.15	-3.12***
RELxREVT	-0.13	-3.82***
BODSIZE	-0.03	-2.22**
BODIND	-0.04	-1.74*
AUCOM	-0.02	-0.74
RELxBODSIZE	-0.24	-3.92***
RELxBODIND	-0.39	-3.67***
RELxAUCOM	-0.17	-2.87***
SIZE	-0.02	-1.17
LEV	0.11	1.70
CASFO	0.03	0.86
ROA	-0.07	-1.19
MBV	-0.03	-1.76*
Year Fixed Effects	Yes	Yes
Adjusted R ²	0.52	0.52
Observations	23164	23164

We use *,**,*** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, *REVT* is total revenue scaled by total assets. *REL* = religiosity of the firms' environment, *REL x SPITEM* = interaction between religiosity and income-decreasing special items. *RELxREVT* = interaction between religiosity and total revenue scaled by total assets. *SIZE* is the natural log of total assets, *LEV* is the financial leverage measured as the total debts scaled by total equity, *CASFO* is the cash flow from operational activities scaled by lagged total assets. *ROA* is measured as net income before extraordinary items divided by average total assets and *MBV* is measured as total assets divided by market capitalization. *BODSIZE* = total number of directors on the board; *BODIND* = calculated as the number of independent directors divided by the total number of directors on the board; *AUCOM* = a dummy variable coded as 1 if the company has an audit committee, otherwise zero; *RELxBODSIZE* = religiosity multiplied by board size; *RELxBODIND* = religiosity multiplied by board independence; *RELxAUCOM* = religiosity multiplied by audit committee; The parameters are estimated based on the following model. All variables are defined in the appendix.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 RELSPITEM + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 BODSIZE + \beta_7 BODIND + \beta_8 AUCOM + \beta_9 RELxBODSIZE + \beta_{10} RELxBODIND + \beta_{11} RELxAUCOM + \beta_{12} SIZE + \beta_{13} LEV + \beta_{14} CASFO + \beta_{15} ROA + \beta_{16} BMV$$

Table 8: Impact of Religion on Classification Shifting in Urban and Rural Areas

Variables	URBAN		RURAL	
	Coefficient	t-values	Coefficient	t-values
Intercept	-0.06	-0.70	-0.09	-0.47
SPITEM	0.07	2.28**	0.04	2.69**
REVT	0.15	3.62***	0.11	2.20**
REL	-0.12	-3.21***	-0.09	-3.51***
REL×SPITEM	-0.13	-3.45***	-0.11	-3.37***
REL×REVT	-0.14	-3.09***	-0.08	-2.27**
SIZE	-0.08	-2.32**	-0.05	-1.74*
LEV	0.06	1.06	0.00	1.01
CASFO	0.16	2.23**	0.08	2.18**
ROA	-0.06	-1.77*	-0.07	-1.75*
MBV	-0.06	-1.04	-0.05	-1.02
BIG4	-0.03	-1.36	-0.02	-1.49
ANAL_FOL	-0.04	-1.26	-0.03	-1.09
Year Fixed Effects	Yes	Yes	Yes	Yes
Adjusted R ²	0.37	0.37	0.33	0.33
Observations	18,124	18,124	4,253	4,253

Notes: We use *, **, *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, *REVT* is total revenue scaled by total assets. *REL* = religiosity of the firms' environment, *REL*×*SPITEM* = interaction between religiosity and income-decreasing special items. *REL*×*REVT* = interaction between religiosity and total revenue scaled by total assets. *SIZE* is the natural log of total assets, *LEV* is the financial leverage measured as the total debts scaled by total equity, *CASFO* is the cash flow from operational activities scaled by lagged total assets. *ROA* is measured as net income before extraordinary items divided by average total assets and *MBV* is measured as total assets divided by market capitalization. *BIG4* is an indicator variable that equals 1 if a firm is audited by the BIG4, otherwise zero and *ANALYST_FOL* represents the log of the number of financial analyst following the firm. The parameters are estimated based on the following model: All variables are defined in appendix.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST_FOL$$

Table 9: Religiosity and Different Models of Classification Shifting.

Variables	Athanasakou et al. (2009) Model		Fan et al. (2010) Model	
	Coefficient	t-values	Coefficient	t-values
Intercept	-0.08	-0.65	-0.05	-0.73
SPITEM	0.07	3.27***	0.08	2.96***
REVT	0.16	3.78***	0.12	2.24**
REL	-0.12	-2.93***	-0.17	-3.65***
REL×SPITEM	-0.15	-3.09***	-0.13	-3.07***
REL×REVT	-0.09	-3.83***	-0.11	-2.48**
SIZE	-0.03	-2.14**	-0.04	-2.48**
LEV	0.19	1.41	0.03	1.56
CASFO	0.19	1.49	0.13	1.48
ROA	-0.08	-1.71*	-0.09	-1.67*
MBV	-0.07	-2.04**	-0.04	-2.28**
BIG4	-0.04	-1.22	-0.05	-1.09
ANA_FOL	-0.03	-1.37	-0.04	-1.27
Year Fixed Effects	Yes	Yes	Yes	Yes
Adjusted R ²	0.53	0.53	0.46	0.46
Observations	23164	23164	23164	23164

Notes: We use *, **, *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, *REVT* is total revenue scaled by total assets. *REL* = religiosity of the firms' environment, *REL*×*SPITEM* = interaction between religiosity and income-decreasing special items. *REL*×*REVT* = interaction between religiosity and total revenue scaled by total assets. *SIZE* is the natural log of total assets, *LEV* is the financial leverage measured as the total debts scaled by total equity, *CASFO* is the cash flow from operational activities scaled by lagged total assets. *ROA* is measured as net income before extraordinary items divided by average total assets and *MBV* is measured as total assets divided by market capitalization. *BIG4* is an indicator variable that equals 1 if a firm is audited by the *BIG4*, otherwise zero and *ANLYST_FOL* represents the natural log of the number of financial analyst following the firm. The parameters are estimated based on the following model: All variables are defined in appendix.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST_FOL$$

Table 10: Regression of Unexpected Core Earnings on Special Items Expenses and Special Revenue: Auditor Characteristics & Religiosity

Dependent Variable = UNEXP_CE

Variables	Model (5)		Model (6)		Model (7)	
	SPITEM		REVT		SPITEM & REVT	
Panel A: BIG4 Auditors						
	Coefficient	t-values	Coefficient	t-values	Coefficient	t-values
Intercept	-0.05	-0.37	0.07	1.31	0.06	0.80
SPITEM	0.14	2.03**			0.16	2.05**
SPITEM×BIG4	-0.04	-1.09			-0.05	-1.64
REVT			0.06	2.05**	0.09	1.97**
REVT×BIG4			-0.03	-1.23	-0.04	-1.36
REL×SPITEM×BIG4	-0.25	-2.21**			-0.17	-1.81**
REL×REVT×BIG4			-0.18	-2.14**	-0.16	-1.98**
REL×BIG4	-0.13	-1.94**	-0.05	-2.32**	-0.07	-2.33**
BIG4	-0.08	-1.24	-0.03	-1.42	-0.09	-0.883
Con. Variables	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23,164	23,164	23,164	23,164	23,164	23,164
Adjusted R ²	0.09	0.09	0.08	0.08	0.11	0.11
Panel B: Auditor Tenure						
Intercept	-0.04	-0.39	-0.02	-0.54	-0.03	0.69
SPITEM	0.33	2.94***			-0.30	2.86***
SPITEM×TEN	-0.06	-1.38			-0.08	-1.21
REVT			0.02	3.09***	0.02	3.04***
REVT×TEN			-0.09	-2.40**	-0.08	-2.68**
REL×SPITEM×TEN	-0.05	-2.45**			-0.07	3.15***
REL×REVT×TEN			-0.06	2.31**	-0.08**	-2.39**
RELTEN	-0.04	-2.08**	-0.08	-1.82*	-0.07*	-1.78*
TEN	-0.02	-0.88	-0.04	-1.54	-0.05	-1.55
Con. Variables	Yes	Yes	Yes	Yes	Yes	Yes
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	23,164	23,164	23,164	23,164	23,164	23,164
Adjusted R ²	0.08	0.08	0.06	0.06	0.09	0.09

Notes: We use *,**,*** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, *REVT* is total revenue scaled by total assets. *REL* = religiosity of the firms' environment, *BIG4* is an indicator variable that equals 1 if a firm is audited by the *BIG4* auditing firm, otherwise zero. *SPITEM*×*BIG4* = interaction between *BIG4* auditors and total revenue by total assets. *REVT*×*BIG4* = interaction between *BIG4* and total revenue scaled by total assets. *REL*×*SPITEM*×*BIG4* = interaction among religiosity, *BIG4* auditors and income-decreasing special items. *REL*×*REVT*×*BIG4* = interaction among religiosity, *BIG4* auditors and total revenue scaled by total assets. *REL*×*BIG4* = interaction between *BIG4* and religiosity. *TEN* = is the natural log of the number of years the auditor has been with the company. *SPITEM*×*TEN* = interaction between income-decreasing special items and auditor tenure. *REVT*×*TEN* = interaction between total revenue scaled by total assets and auditor tenure. *REL*×*TEN* = interaction between auditor tenure and religiosity. The parameters are estimated based on the following model: All variables are defined in appendix.

Table 11: Religiosity and Misclassification in Pre and Post Sarbanes-Oxley Act 2000 and Financial Crises Period

Dependent Variable = UNEXP_CE

Variables	2000-2002		2003-2009		2010-2015	
	Coefficient	t-values	Coefficient	t-values	Coefficient	t-values
Intercept	-0.05	-0.72	-0.08	-0.74	-0.04	-0.64
SPITEM	0.32	4.52***	0.21	2.48**	0.18	2.34**
REVT	0.19	3.98***	0.15	2.58**	0.12	2.18***
REL	-0.26	-3.52***	-0.28	-3.68***	-0.27	-3.66***
REL×SPITEM	-0.17	-3.64***	-0.22	-3.92***	-0.20	-3.87***
REL×REVT	-0.07	-3.26***	-0.08	-3.47***	-0.09	-3.91***
SIZE	-0.03	-1.32	-0.02	-1.13	-0.02	-1.12
LEV	0.06	2.35**	0.05	2.33**	0.04	2.26**
CASFO	0.04	1.28	0.03	1.18	0.03	1.16
ROA	-0.06	-2.36**	-0.05	-2.29**	-0.04	-2.18**
MBV	-0.01	-2.42**	-0.04	-1.97**	-0.06	-1.78*
BIG4	-0.02	-1.49	-0.03	-1.22	-0.04	-1.28
ANA_FOL	-0.02	-1.63	-0.02	-1.46	-0.04	-1.44
Fixed Effects	Yes	Yes	Yes	Yes	Yes	Yes
Observations	3,054	3,054	10,828	10,828	9,281	9,281
Adjusted R ²	0.29	0.29	0.33	0.33	0.30	0.30

Notes: We use *, **, *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, *REVT* is total revenue scaled by total assets, *REL* = religiosity of the firms' environment, *REL×SPITEM* = interaction between religiosity and income-decreasing special items. *REL×REVT* = interaction between religiosity and total revenue scaled by total assets. *SIZE* is the natural log of total assets, *LEV* is the financial leverage measured as the total debts scaled by total equity, *CASFO* is the cash flow from operational activities scaled by lagged total assets. *ROA* is measured as net income before extraordinary items divided by average total assets and *MBV* is measured as total assets divided by market capitalization. *BIG4* is an indicator variable that equals 1 if a firm is audited by the BIG4, otherwise zero and *ANLYST_FOL* represents the natural log of the number of financial analyst following the firm. The parameters are estimated based on the following model: All variables are defined in appendix.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST_FOL$$

Table 12: Regressions of Religion on Classification Shifting Using Geographic Centralised and Dispersed Segments Sub-samples

Variables	Centralised Segments		Dispersed Segments	
	Coefficient	t-values	Coefficient	t-values
Intercept	-0.07	-0.71	-0.04	-0.83
SPITEM	0.06	2.96***	0.04	2.82***
REVT	0.13	3.35***	0.10	2.09**
REL	-0.18	-4.29***	-0.12	-1.53
REL×SPITEM	-0.16	-3.42***	-0.09	-1.48
REL×REVT	-0.12	-3.92***	-0.07	-1.32
SIZE	-0.06	-2.36**	-0.04	-2.43**
LEV	0.19	1.41	0.03	1.56
CASFO	0.19	1.49	0.13	1.48
ROA	-0.07	-1.78*	-0.08	-1.72*
MBV	-0.09	-2.18**	-0.03	-2.32**
BIG4	-0.05	-1.02	-0.05	-1.09
ANA_FOL	-0.04	-1.32	-0.04	-1.27
Year Fixed Effects	Yes	Yes	Yes	Yes
Adjusted R ²	0.38	0.38	0.32	0.32
Observations	18623	18623	4541	4541

Notes: We use *, **, *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, *REVT* is total revenue scaled by total assets. *REL* = religiosity of the firms' environment, *REL*×*SPITEM* = interaction between religiosity and income-decreasing special items. *REL*×*REVT* = interaction between religiosity and total revenue scaled by total assets. *SIZE* is the natural log of total assets, *LEV* is the financial leverage measured as the total debts scaled by total equity, *CASFO* is the cash flow from operational activities scaled by lagged total assets. *ROA* is measured as net income before extraordinary items divided by average total assets and *MBV* is measured as total assets divided by market capitalization. *BIG4* is an indicator variable that equals 1 if a firm is audited by the *BIG4*, otherwise zero and *ANLYST_FOL* represents the natural log of the number of financial analyst following the firm. The parameters are estimated based on the following model: All variables are defined in appendix.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST_FOL$$

Table 13: Regressions of Religiosity on Classification Shifting using Centralised Segment Sub-Sample

Dependent Variable = UNEXP_CE		
	Coefficient	t-value
Intercept	-0.07	-1.32
SPITEM	0.06	2.82***
REVT	0.16	3.19***
REL	-0.11	-3.27***
RELxSPITEM	-0.13	-3.07***
RELxREVT	-0.12	-3.47***
SIZE	-0.02	-1.14
LEV	0.10	1.63
CASFO	0.03	0.84
ROA	-0.06	-1.17
MBV	-0.03	-1.75*
Year Fixed Effects	Yes	Yes
Adjusted R ²	0.32	0.32
Observations	4541	4541

Notes: We use *, **, *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, *REVT* is total revenue scaled by total assets. *REL* = religiosity of the firms' environment, *RELxSPITEM* = interaction between religiosity and income-decreasing special items. *RELxREVT* = interaction between religiosity and total revenue scaled by total assets. *SIZE* is the natural log of total assets, *LEV* is the financial leverage measured as the total debts scaled by total equity, *CASFO* is the cash flow from operational activities scaled by lagged total assets. *ROA* is measured as net income before extraordinary items divided by average total assets and *MBV* is measured as total assets divided by market capitalization. *BIG4* is an indicator variable that equals 1 if a firm is audited by the *BIG4*, otherwise zero and *ANLYST_FOL* represents the natural log of the number of financial analyst following the firm. The parameters are estimated based on the following model: All variables are defined in appendix.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_3 SPITEM \times REL + \beta_4 REVT + \beta_5 REVT \times REL + \beta_6 SIZE + \beta_7 LEV + \beta_8 CASFO + \beta_9 ROA + \beta_{10} BMV + \beta_{11} BIG4 + \beta_{12} ANALYST_FO$$

Table 14: Religiosity and Classification Shifting in Twenty US States

	Coefficient	t-value
Intercept	-0.06	-0.68
SPITEM	0.06	2.98***
REVT	0.10	3.56***
REL	-0.12	-2.94**
REL×SPITEM	-0.13	-4.02***
REL×REVT	-0.11	-2.89**
SIZE	-0.05	-1.84*
LEV	0.05	1.47
CASFO	0.23	2.57**
ROA	-0.09	-1.75*
MBV	-0.07	-1.09
BIG4	-0.03	-1.42
ANAL_FOL	-0.02	-1.33
Year Fixed Effects	Yes	Yes
R-Square	0.49	0.49
No. of Observations	12,325	12,325

Notes: We use *, **, *** in a two tailed test to respectively indicate statistical significance at 10 percent, 5 percent and 1 percent levels. We show co-efficient estimates and t-statistics in separate columns. *SPITEM* = income-decreasing special items scaled by sales, *REVT* is total revenue scaled by total assets, *REL* = religiosity of the firms' environment, *REL×SPITEM* = interaction between religiosity and income-decreasing special items. *REL×REVT* = interaction between religiosity and total revenue scaled by total assets. *SIZE* is the natural log of total assets, *LEV* is the financial leverage measured as the total debts scaled by total equity, *CASFO* is the cash flow from operational activities scaled by lagged total assets. *ROA* is measured as net income before extraordinary items divided by average total assets and *MBV* is measured as total assets divided by market capitalization. *BIG4* is an indicator variable that equals 1 if a firm is audited by the BIG4, otherwise zero and *ANLYST_FOL* represents the natural log of the number of financial analyst following the firm. The parameters are estimated based on the following model: All variables are defined in appendix.

$$UNEXP_CE = \beta_0 + \beta_1 SPITEM + \beta_2 REL + \beta_2 REL \times SPITEM + \beta_2 SIZE + \beta_3 LEV + \beta_4 CASFO + \beta_5 ROA + \beta_6 MBV + \beta_7 ROA + \beta_8 MBV.$$