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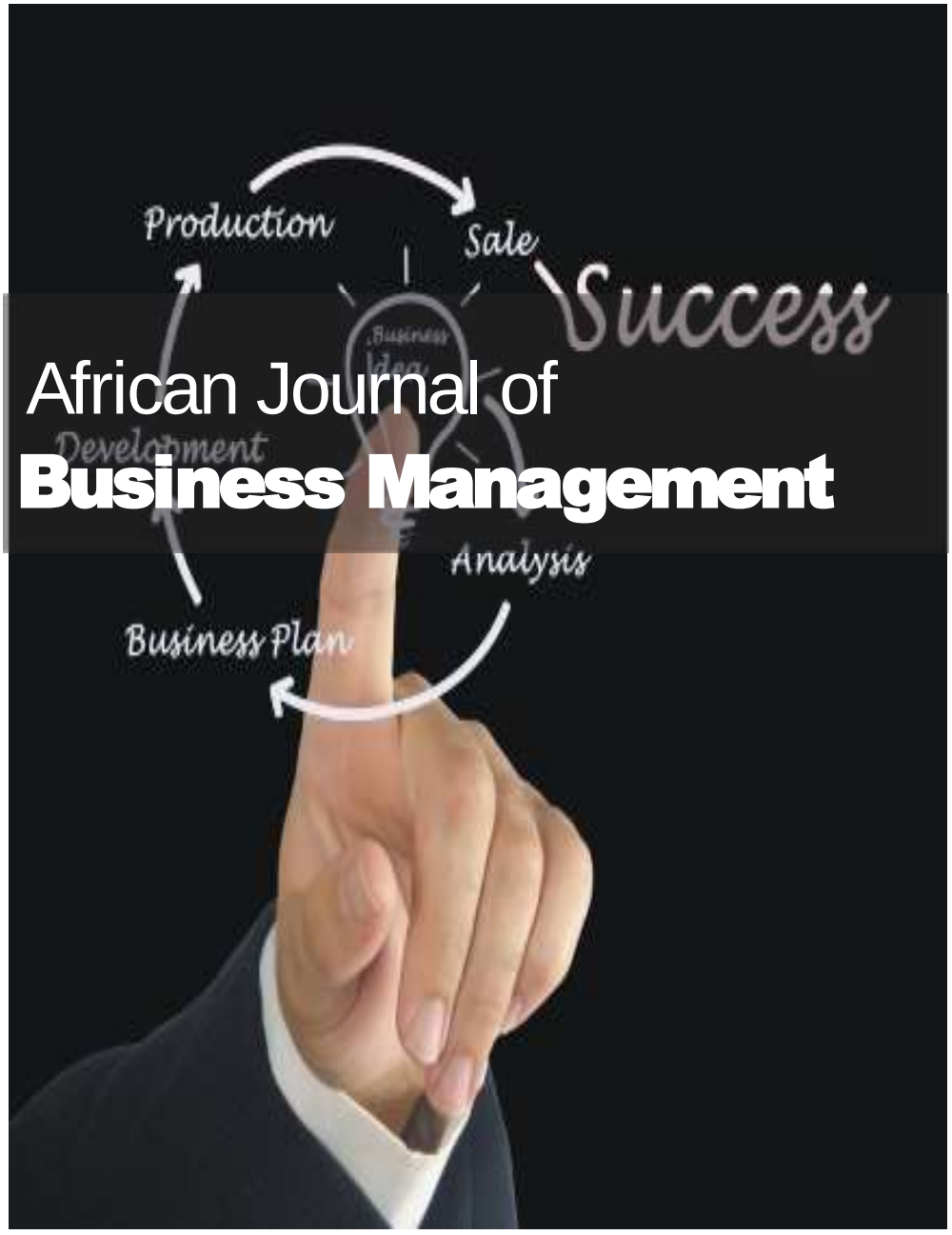

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Full Length Research Paper

Performance, financing decisions and corporate governance of Italian medium and large private family firms

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This empirical study examines the relationship between financing decisions and corporate governance on the one side and firm performance on the other, concerning Italian large and medium private family firms. Tax-aggressive practices are not used to avoid a deprivation of socioemotional wealth, in terms of diminished reputation, caused by a possible tax-related lawsuit. Due to the low risk perception and most likely the profitable use of a larger quantity of cheaper debt, size improves performance. However, more solvent firms exhibit better results only when Return on Assets (ROA) is taken into account. The presence of descendants taking their place in the family business impairs performance. Short- and long-term debts are not related to the agency conflicts between owners and managers and between owners and creditors, therefore debt maturity has no influence on performance. Finally, the negative relationship between leverage and performance tends to reveal pecking order behaviour for the sampled firms.

Key words: Private family firms, performance, financing choices, corporate governance, socioemotional wealth, agency conflicts.

INTRODUCTION

The research on family firms has developed intensively in the last two decades (Carney et al., 2015) and covered several different issues, such as succession, governance, organization theory, small- and medium-sized firms, ownership, and human resources (Benavides-Velasco et al., 2013). In this respect, many articles dealing with the influence of family control on performance stress the importance of several topics, such as the firm's size, generation of family management, identity of owners and managers, as well as the country-context in which family firms operate (Miralles-Marcelo et al., 2014). This paper further deals with the above-mentioned dimensions, which appear to be of interest empirically.

Specifically, this paper investigates the connection between the double aspect of *financing decisions* (represented by the choice of the mix of equity and debt for a firm, that is, its capital structure decisions, as well as the selection of the appropriate duration of its liabilities, that is its debt maturity decisions) and *corporate governance* (used in a very broad meaning, in which the issue of prevention or mitigation of agency conflicts is included, together with the methods for allocating power

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and responsibilities within a firm) of Italian medium and large private family firms on the one side and their *performance* (measured by return on equity or return on assets) on the other.

A large body of empirical research has investigated the relationship both between financing decisions and firm performance and between corporate governance facets and firm performance.

Regarding financing decisions and firm performance, Modigliani and Miller (1958) contend that no modification of a firm's capital structure changes its value or shareholders' wealth in perfect competition and markets. Specifically, only investment decisions are important in maximising value and improving performance. However, when the assumptions of Modigliani and Miller (1958) are at least partly abandoned, by considering taxation, bankruptcy, asymmetric information, and agency conflicts, one finds that capital structure influences a firm's performance.

Modigliani and Miller (1963) themselves explain that, as interest payments are deductible from corporate income, firms can increase their proportion of debt to reduce company tax and improve performance. Moreover, the tax burden can be reduced through tax planning activities (Chen et al., 2010). Many studies on the relationship between effective tax rate (that is, the proportion of tax paid on gross profit) and performance highlight an inverse relationship. For example, Noor et al. (2010) contend that profitable companies can achieve lower effective tax rates, thanks to the availability of tax incentives and provisions. Similarly, Derashid and Zhang (2003) find that more efficient firms benefit from tax subsidy in the form of lower effective tax rates, and Gatsi et al. (2013) explain the negative relationship between taxation and profitability in terms of reduction of earnings level. Other studies find that more profitable firms take advantage of tax practices to moderate their tax costs (Minnick and Noga, 2010; Lanis and Richardson, 2012). In terms of tax aggressiveness, which can be defined as downward manipulation of taxable income through tax planning, sometimes implying fraudulent tax evasion (Frank et al., 2009), Desai and Dharmapala (2006) stress the importance of agency theory in explaining its determinants in family firms. On this issue, Chen et al. (2010) find that the tax aggressiveness of listed family businesses is moderate, in order to avoid the non-tax costs of a potential price discount caused by non-controlling shareholders, who fear a family rent-seeking goal, masked by tax avoidance orientation (Desai and Dharmapala, 2006). Nevertheless, it is still unclear how the trade-off between the costs and benefits of being tax aggressive affects privately held family firms.

However, indebtedness generates not only advantages, but also drawbacks. In fact, a high leverage implies greater probability of bankruptcy, which is an important business concern (Graham and Harvey, 2001), together with its related potential costs (Bancel and Mittoo, 2004). Thus, a firm should identify its optimal leverage, which is the result of a compromise between tax benefits and distress costs of debt (Kraus and Litzenberger, 1973). Accordingly, when a firm's bankruptcy risk is high owing to the sizable amount of debt raised, then the shareholder value will tend to decline, because lenders will demand higher rates of interest on a riskier debt. By contrast, larger firms benefit from higher leverage (Rajan and Zingales, 1995), and this may be interpreted as a low distress-risk perception by lenders. Therefore, larger enterprises can take advantage of lower debt costs and improve their performance.

Moreover, if we look at the issue of corporate governance and its linkage with firm performance, prior studies tend to associate the founder's effect with the superior performance of a family business (Cucculelli and Micucci, 2008). In particular, founder owners are basically focused on growth and financial performance, whereas family owners also pursue socioemotional objectives, generating lower financial returns (Jaskiewicz et al., 2017). Hence, the presence of successors probably has a negative effect on the performance of private family firms. Therefore, weaker performance is expected for older private family firms, in which it is likely that descendants have a growing role as managers and/or owners in the firm, as opposed to younger ones. Furthermore, when we consider the agency conflicts between shareholders and managers and between shareholders and creditors (Jensen and Meckling, 1976), the peculiarities of (private) family firms may have an impact in moderating these agency conflicts in these firms. In other words, the use of debt and its maturity may not be necessary as a means of control over the selfish behaviour of managers, to the detriment of owners, and the same use may not prove to be useful as a method for reducing the opportunistic activities of shareholders to lenders in family-controlled businesses. Coherently, the choice of leverage or debt maturity for these enterprises may not influence their performance.

Although previous analysis acknowledges the effort of academicians in examining the main reasons contributing to business performance, there is virtually no empirical research on the specific issue this paper deals with, that is to say, on the relationship between financing decisions and corporate governance of Italian medium and large private family firms and their performance, as previously described. Specifically, to the best of my knowledge, there is only one recent paper that focuses on the relationship between performance and financing activities from a sample of Portuguese-listed non-financial family and non-family firms (Vieira, 2017). This is quite surprising, as the international importance of family business is widely recognized. For example, over 50% of enterprises in the European Union are family owned; in

Latin America, they represent between 65 and 90% of firms, and in the United States, they constitute more than 95% of businesses (PricewaterhouseCoopers, 2007). Family-controlled businesses employ 80% of the United States workforce and 85% of the working population worldwide. A total of 37% of Fortune 500 companies are family ones (Poza, 2007), and overall, family businesses represent approximately 46% of the Standard and Poor's (S&P) 1500 index firms (Chen et al., 2008). In East Asia, a considerable fraction of firms in the stock markets is controlled by a small number of families (Claessens et al., 2000) and there is also evidence of the domination of family business in Arab and MENA countries (Ayman et al., 2015).

Following the above discussion, this work contributes to the scarce body of knowledge on the relationship between performance, and financing policy and corporate governance of family firms for the main following reasons. First, it focuses on medium and large private family firms, which differ from both non-family-controlled firms and other kinds of family firms (such as listed or very small ones). Secondly, this work facilitates ample examination of the determinants of performance of medium and large private family firms, including financing choices and corporate governance issues. Thirdly, the paper considers a specific country, Italy, where family firms represent more than 70% of industrial and services businesses (ISTAT Istituto Nazionale di Statistica - *Italian Central Statistics Institute*, 2013) and which has a bank-based tradition. This study can thus facilitate further comparisons between medium and large private family firms, belonging to countries with similar or different financial-system characteristics. Lastly, by using a wide sample of firms, it tries to overcome the limitation of the small size of the sample Vieira (2017) used in her work to possibly obtain more generalizable results from the private family firms being examined.

The remainder of this paper is organized as follows. Firstly, the peculiarities of private family firms, as opposed to other types of firms, are highlighted. Secondly, pertinent literature and some hypotheses are examined, and this part is followed by a description of the methodology being employed. Then the results of the econometric model are provided and discussed. Lastly, some conclusions are offered.

THE PECULIARITIES OF PRIVATE FAMILY FIRMS

Family firms differ from non-family firms in general, owing to their complex nature, created by the connections between the family members, their beliefs, culture, and values and the specific business. The "familiness" (Habbershon and Williams, 1999) of family enterprises is related to their distinctive financial and governance features as compared to non-family ones. In fact, family owners have concentrated and poorly diversified ownership and they are actively involved in the management, these businesses have long investment horizons and they are characterized by a specific generation leading the firm (Cheng, 2014). From a non-economic perspective, even if all enterprises have several economic as well as non-economic objectives, only family firms should have non-economic goals which represent the unique interests of the controlling family, including its vision, attitudes, and intentions (Chrisman et al., 2012). Moreover, Gomez-Mejia et al. (2007) coined the term *socioemotional wealth*, which they defined as a group of several facets, including identity, the ability to exercise family influence, and the perpetuation of a family dynasty. The socioemotional orientation implies autonomy and control, family cohesiveness, supportiveness, loyalty, harmony, pride, family name recognition, respect, and status (Zellweger et al., 2011), as well as the need to transfer the family business to future generations and sustain the family's image and reputation (Naldi et al., 2013).

However, in addition to the difference between family and non-family firms in general, it is also interesting to make a comparison between both private family firms and private non-family firms and between publicly listed family firms and publicly listed non-family firms.

Private firms have equity shares which are not traded in a stock exchange, and they are allowed to release only basic information concerning their financial situation and performance. Nonetheless, privately held family firms benefit from the absence of the capital market discipline which promotes their long-term orientation and socioemotional attitude, even if the lack of these market forces generates excessive altruism, loss aversion, and the pursuit of non-economic goals (Carney et al., 2015).
On the contrary, the power of wealth extraction by controlling shareholders, at the expense of non-controlling ones, in publicly listed firms is subject to capital market forces, and these prove to be effective for both family and non-family firms. Thus, the possibility for family blockholders of engaging in expropriation activities may be as low as that of non-family counterparts (Carney et al., 2015).

The overall differences and similarities between private family firms and other types of businesses are likely to influence the determinants of the performance of the sample enterprises, hence these issues are included in the discussion, which is developed in the following sections.

LITERATURE REVIEW AND HYPOTHESES

Agency conflicts between controlling and non-controlling shareholders and taxation, and financial distress

The agency conflicts between controlling and non-

controlling shareholders, the so-called Agency Problem II (Villalonga and Amit, 2006), are likely to be substantial in family firms (Villalonga et al., 2015), especially when compared to the other types of agency conflicts, namely those between managers and shareholders and between shareholders and creditors, as further explained in a subsequent paragraph.

Thanks to the divergence between control rights and cash flow rights (Shyu and Lee, 2009), family controlling owners can expropriate wealth from non-controlling ones through corporate tax activities that, by deceiving non-controlling shareholders, allow them to extract rents (Gaaya et al., 2017). Nonetheless, family controlling shareholders in private family firms have a lower motivation for taking advantage of non-controlling shareholders compared to controlling shareholders in public firms or private non-family firms. On the one hand, one could assert that non-public family firms lack the discipline of the capital market control (Carney et al., 2015), for which they would be punished by a price discount if non-controlling shareholders perceived rent extraction, through misleading tax planning (Chen et al., 2010). On the other hand, though, Steijvers and Niskanen (2014), quoting Gedajlovic and Carney (2010), stress that private family businesses have large family ownership, implying a much longer investment horizon and greater reputation concerns, as opposed to what happens in public firms or private non-family firms. Therefore, it is likely that controlling family shareholders are strongly worried about complying with tax rules, in order not to have reputation damage caused by a tax-related lawsuit (Chen et al., 2010). Such damage in turn leads to the destruction of socioemotional wealth. In particular, this issue has become more important in Italy, since the recent approval of the Legislative Decree on August 5, 2015 n. 128, introducing a new definition of abuse of law and tax avoidance. Hence, for the preceding considerations, Italian medium and large private family firms refrain from engaging in important tax-aggressive practices to decrease their tax burden and enhance their future performance. In this respect, a negative impact of past taxation on profitability is considered possible. Therefore, the first hypothesis is:

H_1: Past effective tax rate is negatively associated with performance.

As family firms are likely to trade off the tax benefits and bankruptcy costs of debt (Kraus and Litzenberger, 1973), a moderate level of leverage is plausible. Lòpez-Gracia and Sànchez-Andùliar (2007), in line with a previous study of Poza et al. (2004), document that family firms reach their optimal leverage more easily, thanks to reduced agency costs. Lòpez-Gracia and Sànchez-Andùliar (2007) also find that family firms are less indebted than non-family ones. The relative low use of debt by family firms (Gallo et al., 2004; McConaughy et al., 2001; Agrawal and Nagarajan, 1990) is probably related to their peculiar features. In fact, first, a significant debt ratio means a high likelihood of losing family control. Secondly, a business failure implies both an economic loss and a loss of the family human capital (Blanco-Mazagatos et al., 2007). Finally, bankruptcy also causes serious damage to family firms that wish to transfer the business to future generations and safeguard their reputation as a family (Berrone et al., 2012). Nevertheless, the financially healthiest family businesses may find it profitable to raise debt capital for new investments, since Italian medium and large private family enterprises rely largely on debt (despite the fact that financial literature documents a lower use of debt in family businesses, as compared to non-family ones, as just described). In fact, on average, debt constitutes 60% of investments for the firms being analysed (Table 2: SOL = 40). Therefore, more solvent and sizeable Italian medium and large private family firms can enjoy moderate rates of interest on their debt, as they are perceived as less risky by creditors. In turn, this may generate better performance, thanks to the profitable employment of a larger amount of cheaper debt capital. Therefore, the next two hypotheses follow:

H_2: Solvency is positively related to performance.

H_3: Size is positively related to performance.

Age and corporate governance considerations

Age, as a proxy for the generation leading a family firm, is expected to influence the performance of family-controlled businesses. Many empirical studies focus on how a specific generation involved in the family business can affect its performance. However, most of these studies concern companies listed in stock markets, thus rarely is a more varied sample employed (Cucculelli and Micucci, 2008). For example, Villalonga and Amit (2006), examining Fortune-500 firms, find that family ownership creates value, but only when the founder serves as CEO of the family firm or as chairman with a hired CEO. Similarly, Barontini and Caprio (2006), using data from publicly traded corporations in Continental Europe, show that operating performance is significantly higher in founder-controlled corporations and in corporations controlled by descendants who sit on the board as non-executive directors, whereas when a descendant is CEO, family firms do not statistically differ from their non-family peers in terms of performance. Within the Standard and Poor's 500 firms, Peréz and Gonzáles (2006) report that firms run by heirs significantly underperform other firms, especially when a family CEO did not benefit from a selective education, while Cucculelli and Micucci (2008) found that successors cause the firm they run to have a lower performance as compared to founders, in a large

sample of Italian manufacturing firms. For the U.S. stock market, Fahlenbrach (2009) gives evidence that founder-CEO firms have better performance. The lower performance, generated by later-generation family businesses, is probably due to their orientation to socioemotional wealth creation. In fact, this orientation causes family firms to accept risks and/or make decisions that possibly decrease performance if those decisions enhance socioemotional wealth creation (Gomez-Mejia et al., 2007; 2011). Actually, family owners, differently from founder owners who are essentially focused on growth and financial performance, also pursue socioemotional wealth objectives, such as dynastic control, family-member employment, and safeguard of reputation, which in turn might imply a sacrifice of financial returns, although compensated by socioemotional wealth creation (Jaskiewicz et al., 2017). Hence, it can be argued that Italian medium and large private family enterprises create lower value, when these businesses involve the descendants, as owners and/or managers. Since the older a family firm is, the higher the probability the successors will have a growing role in the firm itself as well as of an increasing preference to socioemotional goals, it is reasonable to construct the next hypothesis:

H_4: Age is negatively associated with performance.

Agency costs between managers and shareholders and between shareholders and creditors

Regarding Agency Problem I (Villalonga and Amit, 2006) in family firms, concerning agency conflicts between (family) shareholders and managers (Berle and Means, 1932; Jensen and Meckling, 1976; Jensen, 1986), many researchers contend that these should be insignificant, owing to corporate governance and altruistic considerations. First, there is little separation between ownership, control, and management in family-controlled businesses, which maximizes stockholder wealth (Hill and Snell, 1989). Furthermore, family shareholders usually have undiversified portfolios and concentrated ownership (Cheng, 2014) and pursue noneconomic goals to preserve their socioemotional wealth (Gomez-Mejia et al., 2007), such as the transmission of the business to future generations and the preservation of the family's image and reputation (Naldi et al., 2013). Therefore, family controlling owners are encouraged to communicate and cooperate with one another (Van den Berghe and Carchon, 2003) to effectively monitor managers (Shleifer and Vishny, 1986) and stimulate them to create shareholder value as well as to achieve socioemotional goals. Nevertheless, agency conflicts between owner-managers and simply family owners may occur in family firms, especially in later-generation family businesses. In fact, in this kind of family firm, ownership and management become more fragmented, thus generating room for information asymmetries and the opportunistic behaviour of managers (Blanco-Mazagatos et al., 2007). Owner-managers will be focused on the interests of their family unit and make decisions for the benefit of their own nuclear family, rather than that of the family firm as a whole (Blanco-Mazagatos et al., 2016), thus prejudicing family firm performance. Since short-term debt gives lenders the possibility of effectively monitoring managers with minimum effort (Rajan and Winton, 1995), reducing debt maturity also helps minimize the agency conflicts between managers and owners (Stulz, 2000), that is between owner-managers and non-manager owners in family firms, thus improving business performance. The same result can be obtained through increasing leverage, which prevents managers from employing free cash flow to realize personal objectives (Jensen, 1986). Hence, we could expect a positive relationship between the amount of short-term debt and level of debt and firm performance on the one side, and a negative one, between the incidence of long-term debt and firm performance on the other. Nonetheless, adequate governance mechanisms may effectively discipline managers and cause agency conflicts between owner-managers and non-manager owners negligible in the second and later generations (Blanco-Mazagatos et al., 2016). Therefore, Italian medium and large private family firms do not use decreasing debt maturity nor increasing leverage to hinder selfish managerial behaviour, which may impair firm performance, especially when the business is characterized by a more distributed ownership and management (the mean and median values for AGE are, alternatively, 33.8 and 32.0, exhibiting, on average, a certain probability of some kind of ownership and/or managerial fragmentation, due to the greater involvement of the founder's relatives in the firm). Obviously, at the same time, owner-managers are not allowed to employ long-term debt or decreasing debt to satisfy their selfish interests.

The Agency Problem III (Villalonga et al., 2015), that is the agency conflicts occurring between owners and creditors, is supposed to be irrelevant in family-controlled businesses, as argued by Croci et al. (2011) and Dìaz-Dìaz et al. (2016). In fact, family owners tend to behave fairly with lenders, because they wish to preserve the socioemotional wealth reflected in the family firms they run and want to safeguard their concentrated and scarcely diversified investments, in the firms themselves. Consequently, creditors do not need to compensate for the strong possibility of selfish behaviours of shareholders by paying less for a firm's debt, demanding higher interest rates, developing monitoring activities, and requiring bonding activities (Jensen and Meckling, 1976). All of these circumstances would normally increase financial and managerial costs and worsen firm performance. Coherently, short-term debt is not required

in family-owned businesses to lessen the agency problems of underinvestment or overinvestment (Myers, 1977; Barnea et al., 1980; Childs, et al., 2005; Dang and Phan, 2016). Neither higher debt nor longer debt maturity are seen by creditors as a means for expropriating considerable lenders' wealth. More precisely, debt maturity and leverage are not connected with the performance of Italian medium and large private family firms, because creditors do not require costly activities or higher interest rates in the absence of suitable financing policies. Similarly, specific financing typologies cannot improve a firm's performance. Thus, the next hypotheses are proposed as applicable in both the contexts of Agency Problems I and III, discussed in this paragraph:

H_5: There is no statistically significant relationship between short-term debt and performance.

H_6: There is no statistically significant relationship between long-term debt and performance.

H_7: There is no statistically significant relationship between leverage and performance.

METHODOLOGY

Sample selection and model characteristics

The sampled firms are composed of Italian medium and large private family firms, belonging to all sectors except for the financial one. The choice of only non-financial businesses allows this research to avoid the effect of financial sector regulations and specific firms' financing policy (Gottardo and Moisello, 2014). Furthermore, following previous studies (Anderson and Reeb, 2003, Anderson et al., 2003; Barth et al., 2005; Amore et al., 2011; Croci et al., 2011; Dìaz-Dìaz et al., 2016), ownership is considered for identifying family firms. Specifically, depending on data availability, private family firms are referred to herein as those unlisted firms with one or more named individuals or families, jointly owning at least 50% of the equity. The choice of the percentage of 50% for ownership lies in the fact that privately owned firms have concentrated ownership structures, therefore an ownership of 50% is needed to achieve actual control (Amore et al., 2011). As far as the issue of firm size in the sample is concerned, this work refers to the EU approach (Commission Recommendation of 6 May 2003, concerning the definition of micro-, small-, and medium-sized enterprises). In particular, medium and large businesses in this research are those with revenues from sales and services (annual turnover) of at least EUR 10 million and at least 50 employees.

The sample data were gathered from the AIDA (*Analisi Informatizzata Delle Aziende*) database for the period of 2008-2016. AIDA is the Italian provider of the Bureau Van Dijk European Databases, containing comprehensive financial and accounting information on Italian companies in all sectors of activity. The initial sample includes all active non-financial Italian medium and large private family firms of the database, which are represented by 1,760 units. Enterprises with missing observations and/or negative values for effective tax rates and/or short-term debt, long-term debt, and leverage are excluded in order to avoid misleading results. Hence, the final sample is made of 983 family firms, as defined above. All of the variables used in the empirical model concern book values and are described in detail in Table 1.

The following empirical models are employed to test the proposed hypotheses:

$$PER_{A\ or\ B\ i,t} = \beta_0 + \beta_1 ETR_{i,t-1} + \beta_2 SOL_{i,t} + \beta_3 SIZE_{i,t} + \beta_4 AGE_{i,t} + \beta_5 STD_{i,t} + \beta_6 LTD_{i,t} + \beta_7 DE_{i,t} + \varepsilon_{i,t}$$

Where, $PER_{A\ or\ B\ i,t}$ = performance$_{A\ or\ B}$ for firm i at time t; β_0 = constant; $ETR_{i,t-1}$= effective tax rate for firm i at time t-1 (where the initial/final t-1 period is between 2007 and 2015); $SOL_{i,t}$ = solvency for firm i at time t; $SIZE_{i,t}$ = size for firm i at time t; $AGE_{i,t}$ = age for firm i at time t; $STD_{i,t}$ = short-term debt for firm i at time t; $LTD_{i,t}$ = long-term debt for firm i at time t; $DE_{i,t}$ = leverage for firm i at time t; $\varepsilon_{i,t}$ = error term and $\varepsilon_{i,t} = \varepsilon_i + v_{i,t}$, where ε_i is the firm-specific effects and $v_{i,t}$ is a random term.

The study exploits a static panel data approach. In general, Hsiao (2007) asserts that panel data methodology has several advantages over either cross-sectional or time-series data. Specifically, Terra (2011) emphasizes three main advantages of panel data estimation, quoting Hsiao (1986). First, it creates larger datasets which have higher variability and less collinearity among independent variables. Furthermore, it allows for the examination of topics that cannot be adequately addressed by cross-section or time series models. Lastly, it offers an instrument for reducing the missing variable problem. A fixed effects or random effects model can be used when it comes to a static panel data approach. As suggested by Abor (2007), the choice of the former or latter method depends on the underlying assumptions, and an Hausman test is conducted, which generates a probability of less than 0.05, thus indicating that the fixed effects model is preferable to the random effects one.

RESULTS AND DISCUSSION

Descriptive statistics

Table 2 shows the descriptive statistics for all variables used in the regressions. Some main comparisons highlight that SOL, AGE, and PER_A are characterized by the highest variability, as their standard deviations are greater than 10. By contrast, SIZE, STD, and LTD display the lowest variability, as the values of their standard deviations are less than 1. In greater detail, the mean values for PER_A and PER_B account for 9.88 and 6.62%, respectively. That tends to document an overall ability of the firms considered to generate value, although the period of the investigation (2008 to 2016) substantially refers to the international financial crisis one. Notoriously, it starts with the subprime mortgage financial crisis in 2007 in the USA and then propagates to Europe, including Italy, as a major credit crunch and lack of investment opportunities for businesses. Subsequently, after 2010, firms from a few European countries (the so-called PIIGS), such as Italian medium and large private family firms, are also hit by the effects of the sovereign debt crisis of the Eurozone, in terms of further credit restrictions and worsening of economic perspectives. As expected, the mean value for PER_A is coherently greater than that for PER_B, as the former includes, of course, the equity risk premium, demanded by shareholders on their riskier investment, and the latter is a gross weighted average rate of returns for shareholders and lenders. On average, the ETR is 0.55, implying quite a heavy tax burden

Table 1. Description of the variables.

Variable	Definition	Characteristics of the employed variables and (references)
PER_A	$Performance_A$: return on equity (ROE) as a percentage of profit (loss) over the shareholder's funds	Dependent variable (Muhammad et al., 2014; Vieira, 2017)
PER_B	$Performance_B$: Return on assets (ROA) as a percentage of operating margin over total assets	Dependent variable (Anderson and Reeb, 2003; Villalonga and Amit, 2006)
ETR*	Effective tax rate: total current, deferred and prepaid income taxes over profit before taxation (of the previous year, in this work)	Explanatory variable (Chen et al., 2010; Steijvers and Niskanen, 2014)
SOL	Solvency: percentage of shareholder's funds over total assets	Explanatory variable (AIDA)
SIZE*	Size: natural logarithm of total assets	Explanatory variable (Miralles-Marcelo et al., 2014; Vieira, 2017)
AGE*	Age: Number of years since the incorporation until 2016 (as a proxy for the likelihood of the presence of later-generation family firms, in this work)	Explanatory variable (Miralles-Marcelo et al., 2014)
STD**	Short-term debt: payables due within 12 months over the sum of payables due within 12 months and payables due beyond 12 months	Explanatory variable
LTD**	Long-term debt: payables due beyond 12 months over the sum of payables due within 12 months and payables due beyond 12 months	Explanatory variable
DE**	Leverage: sum of due to banks, due to banks beyond 12 months, due to other lenders and due to other lenders beyond 12 months over shareholder's funds	Explanatory variable

*A few variables are constructed on the basis of other variables, provided by the same database. **Unlike previous studies which use, alternatively, debt payable within one year (Abor, 2007; Sheik and Wang, 2011), beyond one year (Sadeghian et al., 2012; Ramadan, 2013), and total debt (Abor, 2007; Salim and Yadav, 2012) scaled by total assets, different proxies for STD, LTD, and DE are employed, as illustrated in Table 1, to better support the underlying hypotheses and argumentation. In fact, depending on the variable considered, it is coherent to calculate the percentage of STD or LTD relative to total debt (as defined) and the proportion of debt to equity.
Source: Most of the variables and related definitions refer to those available on the AIDA database.

for the surveyed firms. Despite a relatively low use of debt in family firms, which is recognized by the preceding researches, as previously written, SOL shows the importance of debt, as the percentage of equity on average employed by the firms analysed is only 40%, and DE exhibits a mean value of almost 1. Whereas the low SIZE variability reveals that the dimensions of the firms observed are similar, the significant mean AGE, that is to say 33.8, shows that they were generally founded many years ago, with the oldest firm being 107 years old. As for STD and LTD, their average values (0.85 and 0.15, respectively) could suggest the low use of long-term debt by Italian medium and large private family firms. Nonetheless, it is important to stress that the sampled firms may tend to rely on the rolling over of short-term debt, thus becoming de facto long-term debt and increasing the actual amount of debt repaid in the long run.

Regression results

Tables 3 and 4 present the regression results, by considering ROE or ROA as the dependent variables, respectively, and employing a fixed-effects approach for the above-mentioned reason. The findings regarding the signs of the coefficients are generally the same in both cases, thus only the relationships concerning ROE and

Table 2. Descriptive statistics of the dependent and explanatory variables.

Variable	Mean	Median	Standard deviation	Minimum	Maximum
PER_A	9.88	7.32	11.3	-130	129
PER_B	6.62	4.99	5.92	-21.8	49.8
ETR	0.55	0.43	1.07	0.00	52.0
SOL	40.0	37.5	20.8	0.21	95.4
SIZE	10.4	10.3	0.79	7.73	14.7
AGE	33.8	32.0	15.1	1.00	107
STD	0.85	0.88	0.15	0.00	1.00
LTD	0.15	0.12	0.15	0.00	1.00
DE	0.98	0.49	1.67	0.00	55.1

Source: Personal elaboration, based on data available on the AIDA database.

Table 3. Regression results for ROE.

Explanatory variable	Predicted sign	Coefficient	Standard error	*t*-value
const		−31.36	79.17	−0.40
ETR	-	−0.158	0.09	−1.79*
SOL	+	−0.12	0.02	−7.17***
SIZE	+	2.04	0.57	3.57***
AGE	-	−0.14	0.05	−3.05***
STD	No relationship	31.78	78.91	0.40
LTD	No relationship	25.86	78.94	0.33
DE	No relationship	−1.30	0.10	−13.03***
R^2	0.532593			
Adjusted R^2	0.473579			
F-statistic	35.1133			
P-value (F-statistic) 0.000000				
Number of observations 8841				
(*), (**), and (***) indicate that coefficients are significant at the 10, 5, and 1% levels of significance, respectively.				

Source: Personal elaboration, based on data available on the AIDA database.

its explanatory variables are commented on, unless differences arise for the dependent variable of ROA.

The sign of the relationship between performance and ETR is negative, as hypothesized, albeit only significant at the 10% level. The significance, though, reaches the 5% level if ROA is taken into account. Therefore, it is fairly clear that, owing to socioemotional concern for a possible tax-related lawsuit (Chen et al., 2010), Italian medium and large private family firms avoid engaging themselves in strong tax-aggressive practices. As a result, past tax burden does not cause these firms to abuse or even use tax-avoidance instruments, and this is reflected on the decreasing profitability.

Regarding the issue of the financial distress relative to performance, firstly the positive impact of SOL on performance was supposed, as more solid Italian medium and large private family firms, from a financial point of view, should be able to moderate their interest expenses and increase performance. However, an opposite result is found. One possible explanation may concern the use of SOL as a solvency variable and ROE as a performance measure. In other words, the most solvent firms being examined are those which obviously employ a considerable amount of equity, that is shareholder's funds. Therefore, one may conclude that, despite a lower cost of debt, which certainly decreases the interest payments, the profit those enterprises produce, by using a greater quantity of less costly debt, may not be sufficient to generate an adequate ROE. This statement could be supported by the positive relationship

Table 4. Regression results for ROA.

Explanatory variable	Predicted sign	Coefficient	Standard error	*t*-value
const		-15.33	36.61	-0.43
ETR	-	-0.08	0.04	-2.05**
SOL	+	0.09	0.01	11.51***
SIZE	+	1.48	0.26	5.75***
AGE	-	-0.22	0.02	-10.77***
STD	No relationship	11.54	35.50	0.33
LTD	No relationship	8.17	35.51	0.33
DE	No relationship	-0.33	0.04	-7.40***
R^2	0.656714			
Adjusted R^2	0.613371			
F-statistic	53.4855			
P-value (F-statistic) 0.000000				
Number of observations 8841				
(*), (**), and (***) indicate that coefficients are significant at the 10, 5, and 1% levels of significance, respectively.				

Source: Personal elaboration, based on data available on the AIDA database.

between SOL and ROA, which could tend to show a positive effect of decreasing default risk and interest rates on the ability of the surveyed firms to improve their value, obviously for both shareholders and creditors. Nonetheless, the positive direction of the relationship involving SIZE is as it was supposed to be, thus sizeable Italian medium and large private family firms can benefit from a larger amount of cheaper debt and reach better performance.

Furthermore, the negative linkage between AGE (as a proxy for the likelihood of the presence of later-generation family firms and the growing involvement of descendants and their preferences) and performance confirms the correctness of the specific hypothesis. This is based on the fact that descendants in Italian medium and large private family firms impair the performance of the businesses they manage once founders have left the enterprise or are less involved in their ownership and/or management. In fact, family owners, unlike founder owners, also purse socioemotional wealth objectives, that is, non-economic ones such as dynastic control, family-member employment, and safeguard of reputation, which in turn causes the sacrifice of financial returns in exchange for socioemotional wealth creation (Jaskiewicz et al., 2017).

Lastly, the reasoning for the linkage between financing choices and performance is only partly proven to be true. In fact, on the one hand and as believed, there is no statistically significant relationship between performance and either STD or LTD, implying no benefit or disadvantage of debt maturity in curbing agency conflicts arising between owner-managers and non-manager owners or between owners and lenders in Italian medium and large private family firms. First, that means that suitable instruments of governance tend to adequately monitor owner-managers, making agency conflicts between them and non-managers owners insignificant, mostly in later-generation family enterprises. Thus, no specific use of debt maturity is necessary from the principals' point of view (non-managers) or allowed for self-serving agents (owner-managers). Furthermore, that also implies that, because of the socioemotional orientation of family owners, together with their need to protect their concentrated and undiversified investments in the firm, lenders neither fear to be expropriated by selfish shareholders by using long-term debt, nor is short-term debt employed to moderate the self-interested behaviour of owners. On the other hand, a negative and statistically significant linkage between DE and performance is found, and that contrasts with what it was supposed to be; that is, no relationship. However, this unexpected result may be explored in the context of the pecking order theory (Myers, 1984; Myers and Majluf, 1984), that is by considering a hierarchy in the choice of the source of financing, for Italian medium and large private family firms: internal funds, debt, hybrid forms of debt and equity, and equity as a last resort. Specifically, more profitable firms can invest considerable quantities of earnings, whose costs, related to asymmetric information, are nil, whereas they are positive for the other items in the pecking order, including debt. Actually, the issue of asymmetric information is likely to be particularly justified for the businesses being considered. In fact, their shares are not traded in stock exchanges, and these firms are allowed to release only little information concerning their financial situation and performance (Carney et al., 2015),

as previously mentioned. Thus, a negative relationship between performance and debt is reasonable. Moreover, this result is in line with the assertion of Vieira (2017), even if this author, especially considering ROA, finds a negative association not only between performance and total debt, but also between performance and both short- and long-term debt.

Conclusions

This article analyses a sample of 983 Italian large and medium private family firms and relates their corporate governance facets and financing decisions to their performance.

By employing a static panel data model (a fixed effects approach), the research documents that most of the relevant explanatory variables considered have the same signs regarding performance as those hypothesized. ROE and ROA are used as dependent variables for performance. The results concerning ROE are preferably examined. Nonetheless, ROA is also taken into account, when empirical evidence shows differences with ROE.

The inverse linkage between ROE and past ETR reveals no use of tax-aggressive practices to avoid the deprivation of socioemotional wealth in terms of diminished reputation caused by a possible tax-related lawsuit (Chen et al., 2010).

The sign for SOL is the opposite of what it was supposed to be, that is negative instead of positive, as it was conjectured that more trustworthy enterprises should benefit from lower financial expenses on their debt, whose cheaper and greater employment enhanced their performance. However, this result can be caused by the fact that the most solvent firms are those which can certainly raise a considerable amount of equity. Therefore, these businesses could not generate sufficient value to improve their ROE, although the amount of debt interest they pay is moderate. On the contrary, the positive relationship between SOL and ROA is as forecasted, and the positive relationship between SIZE and ROE confirms that sizeable Italian medium and large private family firms can improve their performance, thanks to the profitable use of a possibly less costly debt.

The inverse relationship between AGE and ROE is to be interpreted as the negative effect on performance of the presence of successors, having an increasing role as shareholders and/or managers in older Italian medium and large private family firms, once founders have left the enterprise or are less directly involved, as owners and/or managers. In fact, unlike founder owners, family owners also try and achieve socioemotional goals, which cause them to accept a sacrifice of financial returns, counterbalanced by an increase in socioemotional wealth (Jaskiewicz et al., 2017).

STD and LTD are not related to ROE. Specifically, debt maturity is not employed by Italian medium and large private family firms to both limit agency conflicts arising between owner-managers and non-manager owners and between owners and lenders. Debt maturity is also not used by selfish agents (owner-managers or owners, respectively) to expropriate their principals' wealth (non-manager owners, or lenders, alternatively). In fact, on the one hand, adequate mechanisms of governance tend to satisfactorily monitor owner-managers, making agency conflicts between them and non-managers owners insignificant, mostly when later-generation family businesses are considered. On the other hand, the socioemotional wealth orientation of family owners and their concentrated and scarcely diversified investments cause creditors to believe that family owners are reliable. Therefore, lenders do not fear to be expropriated by selfish shareholders, nor the latter are willing to do so.

Lastly, contrary to the expectation, a negative relationship between DE and ROE is empirically found, which may thus reveal a pecking order behaviour among the sampled firms. In other words, more profitable Italian medium and large private family enterprises rely less on external sources, including debt. Interestingly, this finding is in line with that of Vieira (2017), even if the author, especially considering ROA, finds a negative association not only between performance and total debt, but also between performance and both short- and long-term debt.

A limitation of this study may concern the use of an indirect measure for the presence of later-generation family firms and descendant involvement that is AGE, owing to the data availability concerning ownership. Nonetheless, this exploration may stimulate further investigations on the performance of family firms and their corporate governance and financing decision issues, by comparing different kinds of family firms (e.g., founder-run versus descendant-run family businesses) and/or their different legal and financial settings (that is, civil-law relative to common-low countries and/or bank-centred as opposed to market-centred countries). Furthermore, an examination of possible differences and similarities between family and non-family enterprises could shed more light on this field of research..

CONFLICT OF INTERESTS

The authors declare that they have no conflict of interest.

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Assessing the extent of compliance with IAS 41 by agricultural entities in Southern Malawi

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The paper assesses the extent to which Malawian agricultural entities are complying with recognition and measurement requirements of IAS 41-Agriculture, for their agricultural produce and biological assets. The purpose of the paper is to investigate the extent to which Malawian agricultural entities are using the fair value accounting model proposed in IAS 41 for measuring their agricultural produce and biological assets; to establish the most common method utilized for measuring the agricultural produce and biological assets; and to identify the implementation challenges that agricultural entities face in complying with IAS 41, in particular, the determination of fair value. Questionnaires were used to collect the data. Thirty-two participants from Eastern Produce Malawi Limited and Sable Farming Limited participated in the research. Purposive sampling was used to identify the participants to the study. The findings indicate that most Malawian Agricultural entities recognize and measure their biological assets in accordance with IAS 41. However, there are challenges particularly with the determination of fair value. The findings indicate that most agricultural entities measure their agricultural produce and biological assets at fair value less estimated cost of sale at the point of harvest and fair value respectively. It was also established that present value of estimated future cash inflows is the most utilized method to determine the fair value of assets that are biological in nature.

Key words: Biological assets, fair value, recognition, agriculture produce, disclosure.

INTRODUCTION

Malawi, as the warm heart Africa is best known for its friendly people and its lake which covers 20% of the country. In total, 84% of Malawians live in rural areas where about 11 million are engaged in smallholder farming (Mucavele, 2010). Agriculture has, for the past decade, been the mainstay of the Malawian economy. It continues to be a fundamental instrument for sustainable development and poverty reduction in Malawi (Mucavele, 2010). Its contribution to the economy cannot be overemphasized and in 2004 Malawi Economic Growth Strategy; agriculture is stated to account for more than one-third of Gross Domestic Product (GDP) and for 85% of the labor force (Mucavele, 2010). Furthermore, it is stated to account for 90% of export earnings (Manda and Makowa, 2012). While agricultural imports constitute less of the country's total imports, about 20% in 2010,

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agricultural exports, on the other hand, constitute a greater percentage of total exports, approximately 80% in 2010. The sector also supports nearly 82% of the rural population in Malawi (Mucavele, 2010). The main agricultural exports in the country are tobacco, tea, sugar, cotton, rice, and pulses (Mucavele, 2010). Coffee, cotton, tea, sugar, and tobacco are the principal cash crops (Manda and Makowa, 2012). Tobacco is the dominant cash crop in the economy accounting for approximately 63% of the country's total export earnings. Tobacco is the most important cash crop in Malawi contributing 63% to export earnings followed by tea at 8% and sugar at 7%. Livestock production, which contributes about one-fifth of the value of total agricultural production, consists mainly of subsistence grazing of sheep, cattle, goats, poultry and pigs (WTO, 2010).

Malawi agriculture is made up of smallholder farmers estimated at two million farming families cultivating 4.5 million hectares. The agricultural production is subsistent with most households cultivating on less than a hectare of land. It is characterized by low levels of input and low output levels. The estate subsector is the nation's principal foreign exchange earner. While it contributes only 20% of the total national agricultural production, it provides over 80% of agricultural exports mainly from tobacco, sugar, and tea and to a lesser extent, coffee and macadamia. (WTO, 2003). In the light of the sector's importance to the economy, it follows that it is equally important to account for biological assets appropriately. International Accounting Standard (IAS) 41, *Agriculture,* prescribes the accounting treatment and disclosure requirements related to agricultural activity to be measured at fair value less the cost to sale. Furthermore, it states that agricultural activities are the management of biological assets which includes living animals or plants.

Prior to the implementation of IAS 41, there was no comprehensive accounting guideline or standard for agriculture available. IAS 41 was the first ever standard issued by the International Accounting Standard Commission (IASC) that proposed the use of fair value as a prescribed method of measurement rather than as an allowed alternative to historical cost (Argiles and Slof, 2001). It represents the most comprehensive and far-reaching departure from historical costs to date (Elad, 2004). The study sought to examine the extent of compliance with IAS 41 by Malawian agricultural entities, and in particular, to establish challenges faced by them in determining the fair value of biological assets and agricultural produce. The findings of the study indicate that most Malawian agricultural entities are complying with the recognition and measurement requirements of IAS 41.

The findings of the study indicate that most Malawian agricultural entities are complying with the recognition and measurement requirements of IAS 41. The findings also indicate that most agricultural entities measure their agricultural produce and biological assets at fair value less estimated cost of sale at the point of harvest and fair value respectively. It was further established that present value of estimated future cash inflows is the most utilized method to determine the fair value of both biological assets. However, there are challenges particularly with the determination of fair value. The paper presents the problem statement, the literature review, research methodology, discussion of the research findings and a conclusion

Problem statement

Several studies that have focused on the application of IAS 41 have been conducted in other countries including South Africa (Baigrie and Coetsee, 2016), Kenya (Ndung'u, 2012), France (Elad and Herbohn, 2011), United Kingdom (Butler, 2001), Romania (Feleagă et al., 2012), Australia (Nobes, 2006), the United States (Marsh and Fischer, 2013), New Zealand (Fisher et al., 2010) and Spain (Argiles et al., 2009, 2007). Despite the plethora of studies that have been made on the application of IAS 41 around the world, and despite the vital role that agriculture plays in the Malawian economy, there has been no recorded study of the extent to which agricultural entities in Malawi are complying with the requirements of IAS 41. The Malawi Accounting and Auditing Report on the Observance of Standards and Codes in Malawi (ROSC) established that several entities in Malawi encountered practical difficulties in dealing with the requirements of fair value measurement in standards such as IAS 16, Property, Plant, and Equipment. As a result, there were various compliance gaps with IFRS (World Bank, 2007).

In light of the findings by previous studies and the rigorous fair value recognition, measurement and disclosure requirements that IAS 41 places on agricultural entities, there was a clear need to establish the extent to which Malawian agricultural entities are using fair value accounting for biological assets and agricultural produce and to determine any implementation challenges that agricultural entities face in complying with IAS 41 in particular determination of fair value.

The paper, therefore, assesses the extent of compliance with IAS 41 by Malawian agricultural entities such as Eastern Produce Malawi Ltd and Sable Farming Company Ltd, and this is achieved through the following specific objectives:

a) To establish the extent to which Malawian Agricultural companies are using fair value accounting for biological assets and agricultural produce.
b) To identify the common methods of fair value measurement of the biological assets or agricultural produce by agricultural companies in Malawi.
c) To establish the implementation challenges that agricultural entities face in complying with IAS 41 in

particular determination of fair value.

LITERATURE REVIEW

Accounting theory encompasses assumptions, methodologies and frameworks used in the study of financial principles (Abd-Elsalam and Weetman, 2003). This involves a review of the historical foundations of accounting practices, as well as the way in which accounting practices are verified and added to the regulatory framework that governs financial statements and financial reporting (Gibson, 2007). Financial reporting is intended to provide information useful in making business and economic decisions. The objective of IAS 41 is to give guidance on how agricultural activity can be reported in the financial statements. This includes the disclosure requirements. In the context of biological assets, it prescribes how the value of such assets should be considered taking into account the rate of growth, the growing period, the age, the degree of degeneration or damage from pests and diseases, harvesting and any other aspects that impact, either negatively or positively on the value of such biological asset (IFRS, 2013). The standard requires an entity to recognize a biological asset or agricultural produce when, and only when the entity controls the asset as a result of past events; it is probable that future economic benefits associated with the asset will flow to the enterprise and the fair value or cost of the asset can be measured reliably (IAS, 41:10). The future benefits are normally assessed by measuring the significant physical attributes (IAS 41:11).

The standard requires biological assets to be measured on initial recognition and at each balance sheet date at fair value less estimated point-of-sale costs, except for the case where the fair value cannot be measured reliably (IAS 41:12). On the other hand, agricultural produce harvested from an entity's biological assets to be measured at its fair value less costs to sell at the point of harvest. Such measurement becomes cost at a date when applying IAS 2 *Inventories* or another applicable standard (IAS 41:13). Unlike the recognition of biological assets, there is no exception allowed to this fair value recognition in the cases of agricultural produce. It is assumed that the entity will have access at the time of harvest to a market price for the agricultural produce harvested (Baigrie and Coetsee, 2016).

The standard provides that fair value determination may be facilitated by grouping biological assets or agricultural produce according to significant attributes; for example, by age or quality. In addition, the standard requires an entity to select the attributes corresponding to the attributes used in the market as a basis for pricing (IAS 41:15). If active market exists for a biological asset or agricultural produce in its present location and condition, the quoted price in that market is the appropriate basis for determining the fair value of that asset. If an entity has access to different active markets, the entity uses the most relevant one (IAS 41:17). However, if an active market does not exist, an entity uses one or more of the following, when available, in determining the fair value, firstly, the most recent market transaction price provided that there has not been a significant change in economic circumstances between the date of that transaction and the end of the reporting period; secondly, market prices for similar assets with adjustment to reflect differences; and lastly, sector benchmarks such as the value of cattle expressed per kilogram of meat (IAS 41:18).

If market-determined prices or values are not available for biological asset in its present condition, then in these circumstances, the entity uses the present value of expected net cash flows from the asset discounted at a current market-determined pre-tax in determining fair value (IAS 41:20). Furthermore, the standard stipulates that cost may sometimes approximate fair value, particularly when little biological transformation has taken place since initial cost incurrence (for example, for fruit tree seedlings planted immediately prior to the end of a reporting period) or when the impact of the biological transformation on price is not expected to be material (for example, for the initial growth in a 30-year pine plantation production cycle) (IAS 41:24).

There is a presumption that fair value can be measured reliably for a biological asset. However, that presumption can be rebutted only on initial recognition for biological asset for which market-determined prices or values are not available, and for which alternative estimates are determined to be clearly unreliable. In such a case, biological asset will be measured at its cost less any accumulated depreciation and any accumulated impairment losses. Once the fair value of such a biological asset becomes reliably measurable, an entity shall measure it at its fair value less costs to sell (IAS 41:30).

In addition, gains and losses for biological assets may arise in the following situations, firstly, on initial recognition of biological asset at fair value less estimated point-of-sale costs and from a change in fair value less estimated point-of-sale costs of biological asset. The standard recognizes gains and losses in the statement of profit or loss, hence included in the net profit or loss for the period in which it arises (IAS 41:26). Similarly, the gains and losses for agricultural produce may arise on initial recognition of agricultural produce at fair value less estimated point-of-sale costs (as a result of harvesting). The standard also requires gains and losses to be included in net profit or loss for the period in which it arises (IAS 41:28).

Prior to the implementation of IAS 41, there were no comprehensive accounting guidelines or standard on agriculture. Baigrie and Coetsee (2016) recognizes that IAS 41 was a bold step in the international harmonization program initiated by the International Accounting

Standards Board (IASB, 2014). IAS 41 was the first ever standard issued by the IASB that proposed the use of fair value as a prescribed method of measurement rather than as an allowed alternative to historical cost (Argiles and Slof, 2001). The standard requires entities engaged in agricultural activities to measure biological assets at fair value less estimated cost to sell both on initial recognition and at the end of each reporting period (IAS 41:12).

Ndung'u (2012) noted that the number of countries that require or allow the use of International Financial Reporting Standards (IFRS) in the preparation of financial reports by publicly held companies continues to increase. In Malawi, the Society of Accountants in Malawi (SOCAM) which turned into the Institute of Chartered Accountants in Malawi (ICAM) made a decision in 2001, that all companies incorporated under the Companies Act (1984) including entities listed on the Malawi Stock of Exchange (MSE) are required to produce financial statements in accordance with IFRS (World Bank, 2007). IASB issued IFRS for Small and Medium Entities (SMEs) in 2009 and requires all entities with no public accountability to adopt and apply them as their financial reporting framework. Following the recent developments, ICAM adopted the IFRS for Small and Medium Entities (SMEs) as the applicable and acceptable framework for all non-publicly accountable entities. The new Companies Act (2013) in Malawi explicitly requires all companies to prepare financial statements that comply with full IFRS or the IFRS for SME's in Section 246 (2&3). Consequently, all companies that have public accountability are required to apply full IFRS (Deloitte, n.d). Accordingly, public companies with holdings in biological assets are required to use in preparing their financial statements, the recognition measurement and disclosure requirements as contained in IAS 41.

A large number of IAS adopters are from Europe. However, Canada and the Middle East are also well represented. Cairns (1999) reports that the accounting in Europe have historically been perceived to be different from and more flexible than the IASs. It is also noted that it has often been possible for European companies to choose options within their domestic GAAP and IASs. The reduction in the flexibility (due in part to the IASC's compatibility/improvements project) once available with IAS has made it difficult to achieve this "dual compliance" more difficult to achieve. Dumontier and Raffoumier (1998, p. 227) justified the placement of the non-conforming firms into the IAS group by stating that "these companies which referred to IAS but with some disclosure exceptions were nevertheless classified in the IAS group because it was apparent that most firms which declared compliance with IAS did not, in fact, satisfy the entire set of disclosure requirements of the IASC".

Street and Gray (2000), Street and Bryant (2000), Tower et al. (1999), Street et al. (1999) and Cairns (1999) gave the initial examples of significant non-compliance among companies purporting to use IAS. Street et al. (1999) looked specifically at compliance with IASs issued as a project of IASC's comparability project. They found out that non-compliance is particularly common when the sample companies present extraordinary items, the revaluation of property, plant and equipment, pension disclosures, the valuation of inventories, the restatement of foreign entities for companies operating in hyperinflationary economies and the amortization of goodwill. Cairns (1999) argued for disciplinary action against audit firms that ignore obvious noncompliance with IAS and especially when these firms issue unqualified opinion or reference IAS in a misleading manner. These early findings of noncompliance may have encouraged researchers to ignore claims by firms that they have complied with IAS in preparing their financial statements. Researchers have now adopted advanced methodologies to be used in measuring the degree of IAS compliance (Cairns, 1999).

Tower et al. (1999) endeavored to provide an even more precise measure of IAS compliance by examining it as a continuous variable. They coded each of the "compliance points" within a total of twenty-six IASs according to the following points; No compliance with the relevant IAS issue; Compliance with the relevant IAS issue: Compliance with IAS benchmark on a particular issue; Compliance with IAS allowable alternative on a particular issue; Compliance with both the IAS benchmark and allowable alternative; Compliance not disclosed and not readily discernable; along with non-compliance issue. They reported two problems with this kind of coding. First, a number of items were not applicable to some reporting firms (e.g. IAS 11 on construction contracts) and secondly, there was considerable non-disclosure with regard to many IAS rules. Towers et al. (1999) also examined the determinants of IAS compliance by regressing the level of compliance on a number of firm characteristics. They found out that among the variables being studied, the home country of the reporting firm is the characteristic that mostly heavily influences the level of compliance.

A study of 43 plantation entities on Bursa Malaysia found the disclosure of biological assets by firms which was done separately on the face of the balance sheet as required by FRS 101. However, very few companies used fair value to value their biological assets instead following the capital maintenance and amortization methods under the repealed MAS 8 - accounting for pre-cropping costs in determining their value. Various concerns of not implementing IAS 41 were attributed to difficulty in identifying the attributes of biological assets, the cost of fair valuation and volatility and/or the lack of relevant information (Bhakir, 2010). Ernst and Young carried out a survey in South Africa of 46 JSE-Listed companies in 2005 to investigate the IFRS implementation status of companies in South Africa. The survey results indicated 96% of the companies surveyed

were not in compliance with IFRS reporting for their 2005 interim results and only 33% were on track with the overall progress of the IFRS 2005 implementation.

In 2006, Ernst and Young conducted a follow-up survey to assess the implications and impact of South Africa's IFRS transition. The survey highlighted the challenges South African companies faced with the adoption of IFRS which included greater complexity than had been anticipated, high costs, poor understanding of the reasoning behind the transition and potential confusion about company performance information. Ndung'u (2012) established the extent of compliance with IAS 41 by listed agricultural companies on the Nairobi Stock of Exchange. Findings indicated levels of non-compliance ranging between 17 and 39% by listed agricultural companies on the Nairobi Stock of Exchange. The specific areas of non-compliance were in the financial disclosures with a non-compliance level of 20%, non-financial disclosures with non-compliance level of about 60% and other disclosures with a non-compliance level of 100%. Baigrie and Coetsee (2016) found that the majority of South African agricultural companies are using fair value to measure their biological assets at initial recognition as well as at the end of each reporting period. Furthermore, the results showed that most companies are complying with the compulsory disclosure requirements of IAS 41, and are also providing certain of the recommended disclosures listed in the IAS 41. Elad (2004) notes that through the radical departure from historical costs, the standard causes some theoretical and practical problems that might affect widespread adoption. Moreover, it raises major problems of implementation in different national settings. This could affect the harmonization of international accounting standards, for multinationals domiciled in various nations and possessing material holdings in biological assets, comparability of financial statements could be compromised. The use of different assessment models leads to differences of earnings quality in the agricultural sector internationally (Elad and Herbohn, 2011).

Furthermore, interviews in some agricultural entities have shown that IAS 41 demands a lot of extra work and it is hard to establish the fair value (Burnside and Schiller, 2005; Elad and Herbohn, 2011). Feleagă et al. (2012) recognize that the implementation in various countries has led to radical change in accounting policies of major agricultural entities by switching from historical cost to fair value although reactions were not immediate. Svensson et al. (2008) noted drawbacks with regards to fair value and the main drawbacks claimed includes the cost of recognizing biological assets at fair value which exceeds the gains obtained by this valuation method. Elad and Herbohn (2011) revealed that the costs of measuring and reporting biological assets at fair value outweigh the benefits and the fair value method described in IAS 41 increases the volatility of earnings. Baigrie and Coetsee (2016) recognizes that ten years after the issue of IAS 41, this remains a contentious issue today. Koh (2013) states that the use of fair value accounting for biological assets has led to ludicrous financial statements being produced and the selection of a discount rate for the evaluation of biological assets involves subjective judgment. Elad and Herbohn (2011) noted that discount rates are normally established by independent external valuers. These rates and asset values may differ considerably from valuer to valuer. As a result, comparability of financial statement will be compromised.

Agriculture plays a very important role in the Malawian economy. However, despite the importance of the sector to the Malawian economy, there has been no recorded research on the compliance of recognition and measurement requirements of IAS 41. In 2007, the World Bank conducted a review of accounting and auditing standards and practices in Malawi's corporate sector. The review exercise focused mainly on the strengths and weaknesses of the institutional framework that supports the corporate financial reporting system in the country (World Bank, 2007). The review exercise which was conducted by the ROSC team reviewed 23 sets of financial statements from 8 listed companies (including 3 banks), 4 other banks, 5 insurance companies and 6 state-owned enterprises. This review is probably the closest recorded study in Malawi, with regards to objectives that this paper will achieve. However, even this review did not cover compliance with the recognition and measurement requirements of accounting standards (World Bank, 2007). In a review by the World Bank in 2007, the ROSC team discovered that corporate entities had practical difficulties in dealing with the requirements of some of the standards. There were difficulties in determining component values under IAS 16, Property, Plant and Equipment and generally in determining fair values as required by IFRS (World Bank, 2007).

In light of the emphasis that IAS 41 places on fair value, in addition to the absence of any recorded research since this report was disclosed, the importance of this paper is further emphasized.

RESEARCH METHODOLOGY

The study took place in Blantyre, Mulanje and Thyolo districts where most of the agricultural entities are located. The participants to this research were people working in the Accounting Department, senior internal and assistant internal auditors working in the respective agricultural entities. The study targeted senior accountants and internal audit managers of the respective agricultural entities in the respective districts of Blantyre, Mulanje and Thyolo.

Data collection method

Data was collected using a structured questionnaire for both quantitative and qualitative information. A total of 40 questionnaires were circulated within the targeted agricultural entities. The questionnaires contained two sections: Section A sought to establish the respondent demographic information and Section B

sought to answer the research questions. To ensure the validity of the instrument of measurement, the questionnaire was pilot-tested on five respondents and the results were determined to be adequate.

Thereafter, questionnaires were distributed to the respondents by the researcher using a drop and pick later method to reduce disruptions on the respondents' works. A clear explanation through a written letter was given to respondents as to how they are to benefit from the research. All these were aimed at ensuring a high response.

RESULTS

A total of 40 questionnaires were distributed in different agricultural entities out of which 32 were returned giving a response rate of 80%. This response was considerable, good enough, representative of the population and conforms to Mugenda (2003) stipulation that a response rate of 70% and above is excellent. The respondents were asked to indicate their highest qualification achieved. From the findings, it was revealed that 43.75% of the respondents had a degree as the highest qualification, 28.13% had diplomas, 15.63% had certificates, 6.25% masters and 6.25% had other qualifications. This shows that the respondents had relevant qualifications and were familiar enough with the extent of compliance with IAS 41 in their respective agricultural entities hence provide relevant information for the study. The respondents were requested to indicate the number of years they had been in the organization. The figures revealed that 53.13% had been in the organization for between 1 to 5 years, 25% for between 6 to 10 years, 18.75% between 11 to15 years and 3.13% between 16 to 20 years. This shows that the respondents had been in their organisation long enough to understand the extent of compliance with IAS41 in their respective agricultural companies, hence provided reliable information for the study.

Extent of compliance with IAS 41 by Malawian agricultural entities

It was found that the most acceptable measure of biological assets on the balance sheet was through initial recognition only. It was established that the most adopted measure of biological produce is at market value less estimated point of sale. The research findings are consistent with IAS 41 which provides that biological assets should be measured on initial recognition and at each balance sheet date at fair value less estimated point-of-sale costs; also, biological produce should be measured, in all cases, at the point of harvest, at fair value less estimated point-of-sale costs. In total, 40% of the companies analysed used the present value of the expected net cash flows to determine their fair values. Consequently, 60% used a combination of the most recent market transaction price, market prices for similar assets, quoted market prices and present value of expected net cash flows. This is indicative of the diversity given by IAS 41 on the various methods applicable in fair values determination.

Methods fair value measurement by agricultural entities

The researcher found that 40% of the companies used only one method of fair values determination. That is, the present value of expected future cash flows. This method was applied to a range of biological assets which included tea bushes, macadamia nuts trees and livestock. A total of 60% of the other companies determined their fair values for the same range of biological assets with different measurement methods. For example, one of the companies determined its fair value for livestock through the use of the market prices of similar assets and use of the most recent market transaction price for tea bushes.

Incidences of gain and loses on initial recognition of biological assets

The research findings were indicative that the companies analyzed had gains and losses on initial recognition of biological assets and were consequently included in the profit and loss account in the period in which they arose. IAS 41 provides that gains and losses on initial recognition of biological assets or biological produce should be included in the net profit for the period in which they arise.

Financial disclosure

The study sought to find out the extent of compliance with financial disclosures by agricultural entities. The research findings indicated that the company accounts analysed complied with the disclosure of the aggregate gain or loss arising during the period on initial recognition of biological assets, disclosure of the aggregate gain or loss arising during the period from changes in fair values less estimated point-of-sale costs from the subsequent measurement of biological assets and the disclosure of a reconciliation of changes in the carrying amounts of biological assets between the beginning and the end of the current period under the fair value and cost approaches.

Non-financial disclosures

The research findings revealed the highest levels of noncompliance in this regard. All the companies complied with the disclosures on the nature of activities involving each group of biological assets and the methods and significant assumptions applied in determining the fair

values. However, only 40% of the companies complied with the disclosure of physical quantities of each group of biological assets at the end of the period while 60% did not comply with this section of the standard. In total, 60% of the companies did not comply with the standard on disclosure of output of agricultural produce during the period while only 40% of the companies complied with this section of the standard. None of the companies disclosed the existence of biological assets as the whole title was restricted and/or pledged as liabilities and the amount of commitments for biological assets. A total of 60% of the companies did not disclose the financial risk management strategies related to agricultural activates while only 40% of the companies complied with this section of the standard. In total, 60% of the companies did not disclose where during the period the fair value becomes the measurement basis while only 40% of the companies complied with this section of the standard.

Other disclosures

From the research findings, no disclosures were found in the accounts with regard to whether there were incidences when fair values could not be measured reliably or if they were all measured reliably, whether there was a disclosure to that effect indicating that all the fair values were measured reliably.

DISCUSSION

All the participants that took part in filling the questionnaire reported that the common accepted method of measuring biological assets on the balance sheet was through initial recognition only and biological assets are valued at fair value, while the most common method of valuing agricultural produce is fair value less estimated point of sale costs. On the other hand, agricultural produce harvested from an entity's biological assets should be measured at its fair value less costs to sell at the point of harvest. It is clear from the findings of this study that majority of Malawian agricultural entities are complying with the standard. Moreover, despite the option of using the cost model, which is easier because the cost spent on a biological asset is known, most entities use the fair value model to value their biological assets and agricultural produce, which was quite unexpected. In a previous study that had been conducted in some agricultural entities, it was shown that it is hard to establish the fair value (Burnside and Schiller, 2005). In addition, other studies have further established that the demand of fair value has increased pressure on agricultural entities (Feleaga et al., 2012; Elad and Herbohn, 2011). Furthermore, other studies have suggested that the fair value model proposed in IAS 41 would be totally incomprehensible to those individuals engaged in agricultural activities in developing countries (Elad, 2004). Studies in developed countries such as France (Elad and Herbohn, 2011), have also discovered that a majority of entities engaged in agricultural activity (52%) would rather use the cost model in valuing their biological assets than use the fair value model. The 2007 Report on the Observance of Standards and Codes (ROSC) in Malawi conducted by the World Bank found that several entities were encountering practical difficulties in dealing with the requirements of fair value measurement in standards such as IAS 16, Property, Plant and Equipment, which resulted in several compliance gaps (World Bank, 2007). Therefore, as a result of these previous findings, it was expected that most Malawian agricultural entities would struggle to comply with the standard, in particular fair value determination, and hence opt for the cost model.

However, the widespread use of the fair value model to measure biological assets and agricultural produce could be attributed to the benefits that the fair value model offers. A research conducted by Argiles et al. (2009) found that the fair value model is beneficial not only for the entity but also for the financial user. The study found that fair value is friendlier than historical cost for accounting preparation, and it encouraged better judgment among subjects operating in the agricultural sector. Students, farmers, and accountants encountered more difficulty and made more miscalculations preparing accounts with historical cost than with fair value. They persistently carried out flawed valuations of biological assets, less accurate income calculations and poorer judgements with data based on historical cost. In contrast, they attained acceptably accurate valuations, income calculations and judgments when they applied fair value. The study also found fair value to be a more meaningful point of reference than historical cost for subjects operating in the sector. Furthermore, it was discovered that historical cost was not as reliable and relevant as fair value. Finally, fair value could be applied more easily, produces fewer mistakes, is more understandable and encourages better judgements. On the basis of the study conducted by Argiles et al. (2009), it is clear that there are various advantages that fair valuation has over historical cost. These adavantages possibly form the reason for the widespread use of fair valuation among Malawian agricultural entities despite the challenges that come up with fair value, especially where there are no active markets for some biological assets, as is the case in Malawi. However, more research is required to confirm this assertion.

Common method of fair value

IAS 41 requires an entity to measure biological assets and agricultural produce at fair value, but how the fair value is established is open to discretion. Therefore, it is not surprising that there are a variety of methods that Malawian entities use to come up with fair value of

biological assets and agricultural produce. The most common methods of valuing biological assets are as follows: present value of expected future cash flows, recent market transaction prices, quoted market prices and sector benchmarks. Out of the four common methods of valuing biological assets and agricultural produce that emerged, the prevailing method was present value of expected future cash flows. The method of valuing agricultural produce at the point of harvest was even more varied as compared to the responses that were obtained for the common method of valuation for biological assets. In addition to the four common methods of fair valuation for biological assets, the market prices for similar assets were another method of fair valuation for agricultural produce that emerged from this study. Despite the high variability in responses, the prevailing method for valuing agricultural produce was also the present value of future net cash flows.

In a study conducted by PricewaterhouseCoopers (2009) on the application of IAS 41 Agriculture to the fair value of standing timber, it was found that the valuation based on the present value of anticipated future net cash flows was by far the most commonly used method. That study also established that the most common reason for using the DCF method in that study was the lack of active markets with reliable available market prices. Several accountants alluded to the same reason as the rationale behind the widespread use of this method of fair valuation. As one accountant put it, "… finding an active market is not easy. Economic factors also tend to affect the recent transaction price…"DCF's popularity as a method of establishing fair value for biological assets and agricultural produce does not mean it is the 'best' method of fair valuation. Moreover, this method of fair valuation is recommended by the standard only in the circumstance that market-determined prices or values are not available for biological asset in its present condition. Each method of establishing fair value has its shortfalls. The findings of this study suggest that the shortfalls that pertain to the DCF method could result in the manipulation of financial statements. In a study by PwC, out of all the assumptions made in applying DCF valuation, discount rate was a significant factor. A small change in the applied rate can have significant effects on the valuation. This opinion was expectedly maintained from some of the accountants that participated in the research as one accountant say '…coming up with an appropriate discount rate is challenging. It is also an area that is sensitive, implying there is a high risk of fraud. The fact that Malawi does not have a credit rating system makes it even harder to establish a discount rate on a proper basis… these factors mean there is high variability in the discount rate. This also affects the comparability of financial statements…'

IAS 41 provides a hierarchy for the methods that can be used to value biological assets and produce at fair value. However, there is no 'best' method of establishing fair value. Ultimately, it is up to the entity to choose the method that best meets the need to produce relevant and reliable financial statements.

Implementation challenges

Several studies have been conducted that have concentrated on the implementation challenges of IAS 41. Some of the challenges that these studies established were reinforced by the findings of this study. A study by Elad and Herbohn (2011) suggests that having several models to determine fair value and having different assessment models leads to differences in earnings quality in the agricultural sector. Research findings show that having several models to determine fair value has had an impact on earnings quality in the agricultural sector. Different sectors may use any of the different directives offered by the standard. As a result, the fair value figure that one valuation model would give would be different from another valuation model. Consequently, there are bound to be differences of earnings quality in the agricultural sector. It is further suggested that even if there was only one valuation model to determine fair value, for example, present value of expected net cash inflows, there would still be difference in the earnings quality. This is because there is some judgement involved with the discount rate which the entity wants to use. Likewise, if the most recent market transaction price was used, the earnings quality would still be different as a result of price volatility of agricultural produce. The findings of this study therefore suggest that while there are several models to determine fair value that is not the sole reason for differences in earnings quality. Even for congruent valuation models used to determine fair value, there would still be differences in earnings quality, albeit more reduced. It is clear from the findings that most accountants felt the standard allowed a great degree of judgment from management in many aspects. As a result, the risk of fraud is increased. For the fact that fair value is being used to value biological assets and produce, there is bound to be differences in earnings quality due to the judgement that is required in determining fair value. Apart from differences in earning quality, having different valuation models means that the comparability of the financial statements is heavily compromised. Furthermore, key financial ratios are affected, thereby possibly misleading the final user.

Another study by Burnside and Schiller (2005) also established that some agricultural entities showed that IAS 41 demanded a lot of extra work and that it is hard to establish fair value. From the findings of this study, some of the participants agreed that IAS 41 does require a lot of extra work but that it is not necessarily hard to establish fair value. From the findings, it is clear that a majority of the entities that the participants have worked, have been large estates and listed agricultural companies,

most of whom can enable a professional valuer to value the biological assets and agricultural produce at fair value. As a result, establishing fair value will not be difficult because the professional valuer would do so at a fee agreed between the two parties. However, a lot of work is still required if you are performing the valuation on a fair value basis. There are a lot of estimations and judgements when it comes to determining the fair value. As a result, a lot of extra work must still be done to establish fair value, but it is not necessarily difficult to establish fair value.

Elad (2004) further argued that the fair value model proposed in IAS 41 would be totally incomprehensible to those individuals engaged in agricultural activities in developing countries. From the findings of this study, the results have been mixed. Some have comprehended it so well that they have been able to manipulate the discount rates. On the other hand, others have found it difficult such that they have relied on the auditors to help them. Those with a wealth of resources have been able to access professional expertise, while those that do not have such resources that have used cheap labor have struggled with the standard. Other entities have not struggled to apply the standard because they have institutional memory. They have been able to apply the standard through the transfer of skills from the parent company. However, other entities have struggled to apply the standard. For example, they have struggled with the inputs to their fair value model. For others, getting the information to determine fair value has been a nightmare in specialized markets. Price volatility poses a dilemma for these entities as it leaves them unsure about which prices to use to value biological assets if price fluctuations happen frequently.

Most accountants had not encountered a situation where the presumption was rebutted. However, a constant theme that emerged from the possible reasons for rebutting the presumption that fair value can be measured reliably is uncertainty as a result of economic factors. In addition to the lack of active markets with reliable available market prices, this could also be a factor towards the popularity of the DCF method for valuing biological assets. Active markets for biological assets and agricultural produce are very volatile, and, if they are not volatile, then they are simply unavailable. However, despite the gravity of these problems, they do form the key challenges of fair value determination.

Svensson et al. (2008) also established that the cost of recognizing biological assets at fair value exceeded the gains obtained by this valuation method. Corroborating this, Elad and Herbohn (2011), in their questionnaire survey revealed a high level of agreement amongst all groups of respondents, that the costs of measuring and reporting biological assets at fair value outweigh the benefits. The participants of this study generally disagreed with this assertion. Some stated that it depended on factors such as: availability of the active market, size of the company- in terms of revenue and assets, size of the company- in terms of the stakeholders who rely on the financial statements.

It is unambiguous that there are high costs that come with fair value determination. For small and medium enterprises (SMEs), costs of determining fair value may outweigh the benefits. This may a contributing factor that led the IASB toward allowing SMEs engaged in specialized activity such as agriculture to use the historical cost model in valuing biological assets, unless fair value is readily determinable without undue cost or effort.

In addition to the reinforcing challenges that have been established by other studies, this study also discovered other challenges that agricultural entities in Malawi have encountered in respect to IAS 41. There are various aspects of the standard that have caused entities in Malawi challenges. The majority have centered on fair value determination. Entities have found it difficult to determine the value of their biological assets and agricultural produce at initial recognition and subsequent treatment. In addition, access to information is a nightmare in specialized markets. Price volatility poses a dilemma on which prices are to be used to value biological assets if price fluctuations happen frequently. The price variances are too great and too frequent which can be misleading when eventually presented on the financial statements. These challenges agree with Argiles et al. (2009) conclusion on the use of fair valuation for biological assets and agricultural produce. They state that the main disadvantage of fair value is that there are no active markets for some biological assets. Elad and Herbohn (2011) state that some accountants have voiced concern over the applicability of the fair value model, particualrly to some biological assets in developing countries with inactive markets. Moreover, the IAS 41 recognized the difficulties of applying fair value in inactive markets in developing countries, and admitted the use of historical cost for small and medium-sized entities. However, when market values are available, it is worth making use of their advantages.

Non-financial disclosures

This section of the standard portrayed high levels of non-compliance by all the entities analyzed. The non-compliance level was estimated at about 40%. The last section was on other disclosures. From the research findings, none of the companies analyzed had disclosures to indicate compliance with this requirement by IAS 41. This indicated 100% non-compliance with the standard.

Conclusion

The paper concludes that accountants were represented

at meetings and conferences; they were provided with formal accounting training courses mainly on compliance with IAS 41 and accorded with on-job skills that suit their work in the accounting unit. The paper also concludes that the companies' culture, code of conduct, human resource policies and performance reward systems support the organisations objectives towards compliance with IAS 41. The paper concludes that there is little non-compliance levels by Malawian agricultural entities. The entities need to disclose their real financial performance to the public and especially revalue their prime estate assets which are grossly undervalued having appreciated unusually over the years.

CONFLICT OF INTERESTS

The author has not declared any conflict of interests.

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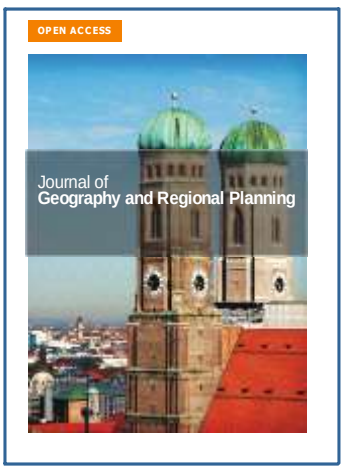
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