Understanding Accounting Students' Cultural Diversity And Its Implication Of The Interpretation Of IFRS

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ABSTRACT

In the global business environment, accountants often adopt accountancy practices to suit their unique cultural and business environments. This aspect often makes the cross-border comparison of financial statements difficult. Several completed research projects conducted has revealed that culture often dictates the accounting environment and based thereupon, it is evident that culture is often closely integrated to accounting development, training and standard setting, as well as the application of accounting standards.

This article considers the potential impact of diverse cultural backgrounds, as defined by the Hofstede and Gray methodologies on accountancy students in a cross-national inter-cultural context, including both developed and developing economical contexts. Using a sample consisting of final-year accounting students from two different university campuses in South Africa and a third university in the United Kingdom, our results suggest that culture does indeed play an important role on accounting education; and that it can also affect the acceptance, understanding and interpretation of accounting standards by these students.

Keywords: Accounting; Accounting Education; Accounting Values; Culture; GAAP; IFRS

INTRODUCTION

The development of a single global set of accounting standards is a key objective in the modern business environment as illustrated by the convergence efforts between the International Accounting Standards Board (IASB) and the American Financial Accounting Standards Board (FASB) (Gornik-Tomaszewski & McCarthy, 2003:35; Goldberg, Grant & Stovall, 2006:35). Notwithstanding this co-operation between the IASB and FASB, aimed to develop a uniform body of 'International Financial Reporting Standards' (Marrero & Brinker, 2007:17), the phenomenon of different accounting practices in different countries will in all likeness prevail. The 'inconsistent' adoption, implementation and application of these International Financial Reporting Standards (IFRS) is evident in the differing levels of education and transparency in the adoption process throughout Western Europe (Steffee, 2009:1), Canada (FEI Canada, 2007:1), and the USA (WEBCPA, 2009:1).

In consideration of the above, there may be a number of factors influencing the adoption, implementation and application of IFRS across international borders, including crucial *non-accounting* influences such as culture, history, geography, socio-economic and political systems, legal and taxation systems, professional governing bodies, religion, language and education. Although most of these factors might determine the local framework within which the accounting profession operates, elements such as education, culture and social beliefs may play an important role in shifting current perceptions while facilitating the evolution of the profession in the years to come.

RESEARCH OBJECTIVE AND METHODOLOGY

South Africa is often referred to as the 'rainbow-nation' due to its widely diverse population, ranging from distinct European cultures to strictly African cultures with almost everything in between. Therefore, it is reasonable to expect that business applications and practices within the country may differ among these cultural groups. Furthermore, the country may be classified as a developing country with very clear '1st' and '3rd' World characteristics. In the context of the global business environment however, South Africa is an international role player and as such its cultural diversity should be a factor of consideration, both within and outside its national borders. In this context, the primary research question under consideration for this article can be formulated as follows:

P₁: What are possible alternate perceptions of IFRS interpretation and accounting practices in the context cross-country cultural diversity between developed and developing economies in accounting students?

The primary aim of this article is therefore to examine the potential impact of different cultural backgrounds on the way accounting students from diverse cultural backgrounds may interpret and apply accounting standards across cultural divides. In order to meet this objective, the article is set out in the following manner. Firstly, an overview of the applied research methodology is provided, followed by a high level theoretical framework on accounting practices and the role of culture. This is followed by the empirical results, including the descriptive and analytical statistics, before the final discussion and conclusions.

RESEARCH METHODOLOGY

Since different perceptions and values could lead to different interpretations of accounting regulations, this article attempts to determine and evaluate cultural values of accounting students of different cultural and socio-economic backgrounds within South Africa, as a developing country, together with a control group sampled from accounting students in a developed European country. There are three distinct cultural groups that make up the sample in this study, and consist of the final-year accounting students from two campuses of the North-West University (NWU) in South Africa with different cultural backgrounds. These two campuses are the Potchefstroom Campus (PTC) with predominantly white, Afrikaans-speaking students and the Mafikeng Campus (MFK) with predominantly black, Sesotho-speaking students. Representing the developed country sample, the final-year accounting students in the Accounting and Finance programme of Leicester Business School, De Montfort University (DMU) in the United Kingdom were sampled.

The measurement instrument used to determine Hofstede's cultural dimensions was the 1994 Value Survey Model, using a five-point Likert scale. This model is a widely utilised instrument to measure cultural differences and has been used in a number of related studies (Torres & Jones, 2010; Crotts & Erdmann, 2000; Huettinger, 2008; Daechun & Sanghoon, 2007; Holden, 2004). In conducting this research, the researchers were present throughout the survey to clarify any uncertainties the students might have experienced in connection with completing the survey. The statistical analysis of the data was performed by the Department of Statistical Consultation Services at the NWU.

THE THEORETICAL FRAMEWORK OF THE RESEARCH

Cultural Impact On Accounting Practices

When IFRS was initially introduced, the general consensus was that the *Capital Market Participants'* financial performances' comparison would improve (Beuselinck, Joos & Van der Meulen, 2007:3; Hamberg, Novak & Paananen, 2006:3). Observers however, warned about the possibility of discrepancies in the process of adopting IFRS due to different views relating to the application thereof, as well as the backgrounds of preparers of financial statements (Perramon & Amat, 2006:6; Diaconu & Coman, 2006:11; Procházka, 2010:19). Radebaugh's (1997:46) earlier argument that *accounting is a product of its environment* is more recently supported by HassabElnaby, Epps and Said (2003:273) when they emphasised the importance of environmental factors in modelling a country's accounting system. Garcia-Sordo and Baren (1999:314) suggest that such a possible environmental factor relates to

the impact of differences in national cultures on the accounting function. Belkaoui (1990:5) also suggested that culture dictates the accounting environment and the cognitive functioning of individuals when faced by accounting phenomena. According to Perera (1989:43), culture is the most powerful environmental factor affecting the accounting system of a country, while Mueller, Gernon and Meek (1997:10) argued that all the things that we learn, observe, feel, believe and prioritise have *cultural dimensions*. According to Marrero and Brinker (2007:18), humans assign specific values to their own realities, which results in certain principles or laws being considered as the norm within a specific group or society. Hofstede (1983:75) defined culture as the combined patterns of thoughts that distinguish one category of people from those of another, the common element being the perception of culture as a *programming of the mind* (Marrero & Brinker, 2007:18). The potential influence of culture on accounting has been researched at various stages. From the perspective of the practical application of accounting, early research by Jaggi (1975:76), concluded that cultural differences between developed and less developed countries may often result in differences in accounting disclosures. In regards accountancy education and training, Lindahl and Fanelli (2002:285) and Sullivan (2006:1-13) identified challenges for students with different cultural backgrounds, while from a regulatory perspective, Violet (1983:2) concluded that different cultures produce unique accounting structures shaped by a multitude of cultural constraints and variables. McKinnon (1986:72-73) further confirmed this conclusion by providing cultural explanations for accounting developments in Japan, while Bloom and Naciri (1989:72) concluded that accounting standard setting is influenced by the economic, political and social environments. Considering the aforementioned, it is evident that culture is very often considered concomitant to accounting development, including accounting training, regulation and application.

Cultural Dimensions and Hypotheses

Hofstede (1980:25) was one of the first authors to recognise the importance of culture in the work environment. In his seminal work, he identified four primary measurable cultural dimensions, including i) *individualism versus collectivism* that refers to the relationship between the individual and the group, ii) *power distance* that refers to social inequality in relation to authority, iii) *masculinity versus femininity* that refers to the social implications of being born as a male or a female, and iv) *uncertainty avoidance* that refers to the ability to deal with uncertainty, the control of aggression and the expression of emotion. Gray (1988:5-8) extended this cultural framework and suggested that accounting values are derived from cultural dimensions that then influences the accounting systems. Gray (1988:8) identified the following primary accounting values, including i) *professionalism versus statutory control* that refers to professional judgement and self-regulation as opposed to compliance with prescriptive legal requirements and statutory control, ii) *uniformity versus flexibility* that refers to the enforcement of uniform and consistent accounting practices as opposed to flexibility in accordance with the perceived circumstances of individual companies, iii) *conservatism versus optimism* that refers to a cautious approach to accounting measurement as opposed to a more optimistic and risk-taking approach and iv) *secrecy versus transparency* that refers to confidentiality and the restriction of disclosure of information as opposed to a more transparent, open and publicly accountable approach. As a result of the interaction between Hofstede's cultural dimensions and Gray's accounting values, Gray (1988:8-11) developed the following hypotheses:

- A high *individualism* ranking together with low *uncertainty avoidance* and *power distance* rankings should more likely result in a high *professionalism* ranking.
- Conversely, high *uncertainty avoidance* and *power distance* rankings with a low *individualism* ranking should result in a high *uniformity* ranking.
- A high *uncertainty avoidance* ranking together with low *individualism* and *masculinity* rankings should result in a high *conservatism* ranking.
- Conversely, high *uncertainty avoidance* and *power distance* rankings with low *individualism* and *masculinity* rankings should in turn result in a high *secrecy* ranking.

The above hypotheses are supported by further independent empirical research, including Sudarwan (1994:8), who used linear structural relations to test the validity of Gray's model and found that all four the values are confirmed by Indonesian accounting practices; Salter and Niswander (1995:379), who concluded that Gray's model has statistically significant explanatory power; Willett (2002:31), who provided support for Gray's accounting value constructs of *uniformity, professionalism* and *secrecy*; Olimid (2006:1), who found evidence in Romania for the first three of Gray's hypotheses; and Askary (2006:102), who confirmed the effects of culture on accounting *professionalism* in developing countries such as Iran, Bangladesh, Jordan, Oman and Qatar.

EMPIRICAL RESULTS

Descriptive Statistics

The final samples consisted of 91 students from the MFK Campus, 118 students from the PTC Campus and 92 students from the DMU (refer to Table 1, panel A). The sample size represented at least 98% of the registered final-year accounting students at the various institutions. With regard to the profile by gender, the MFK returned an unequal split between males and females (38% and 62% respectively), while PTC and DMU returned almost equal splits between male and female. Similarly, the vast majority of the sample in all three locations is within the range of 18 to 24 years old, with only a small percentage of students older than 25 years (refer to panel B). This provided an opportunity to study the different perceptions and cultures across the same age category, thus eliminating potential 'noise' created by life experiences of older age groups.

Table 1: Descriptive Statistics And Sample Properties
Panel A: Gender Of Respondents (By Examined Institution)

	Potchefstroom Campus (n=118)	Mafikeng Campus (n=91)	De Montfort University (n=92)
Male	49%	38%	51%
Female	51%	62%	49%
	100%	100%	100%

Panel B: Age Group Of The Respondents (By Examined Institution)

	Potchefstroom Campus (n=118)	Mafikeng Campus (n=91)	De Montfort University (n=92)
<24	100%	94.5%	92.4%
25-29	0.0%	2.2%	0.0%
30-34	0.0%	1.1%	5.4%
35-39	0.0%	2.2%	2.2%
	100%	100%	100%

Analytical Statistics

With regard to the analysis stage, the use of Likert scales requires the use of a ranking procedure with "1" being a minimum and "5" being a maximum score. However, the analysis of commonality among the alternative sample groups will be initially estimated using an independent group *t*-test. The whole process is carried out in two stages with the formal stage assessing the key underlying assumptions of homogeneity of *k-sample* variances and then, if this is found to be insignificant, we would then proceed with the estimation of the relevant *t*-statistic.

The assessment of the homogeneity of variances is carried out using the Levene's test. Our decision is based on the properties of the test as being less sensitive to possible departure from normality. On that basis, we test the hypothesis that the variance across all sample groups, examined in pairs, for a variable ϑ is significantly different in statistical terms; while the relevant test-statistic, using the comparison between the PTC and MFK Campuses as an example, is estimated as:

$$W = \frac{N-2}{k-1} \frac{\sum_{i=1}^{k} N_i \left(\overline{Z}_{i\cdot} - \overline{Z}_{i\cdot\cdot} \right)^2}{\sum_{i=1}^{k} \sum_{j=1}^{N_i} \left(Z_{ij} - \overline{Z}_{i\cdot} \right)^2}$$

[1]

where, N is the sample size; k is the number of observations of the subgroups within the sample; $Z_{i,j}$ is the difference between each observation of the variable ϑ for both subgroups i and j (PTC and MFK Campuses

respectively) and the arithmetic mean of the ith subgroup ($\overline{\vartheta}_{i.}$) or $Z_{ij} = \left| \vartheta_{ij} - \overline{\vartheta}_{i.} \right|$; N_i is the sample size of the ith subgroup; $\overline{Z}_{i.}$ are the group means for Z_{ij}; and, $\overline{Z}_{i..}$ is the overall mean of the Z_{ij}. Equality of group variances (or lack of) is assessed by comparing the value of *W* with the upper critical value of the *F*-distribution.

Based on the Levene's test findings, we then carry out the independent t-test as normal for all cases where the variance between the two subgroups is similar; while, for the case of unequal variance, statistical significance is assessed using the Welch *t*-statistic.

The cultural value systems and attitudes of all data samples are estimated using Hofstede's (1994) methodology in estimating the four indices of i) *Power Distance,* ii) *Individualism*, iii) *Masculinity*, and iv) *Uncertainty Avoidance*. Each of these systems represents one of the four typical dimensions of a national cultural system, while the review of individual campus' scores in all the above four indices will allow the identification of each campus' performance in terms of Gray's accounting values. Finally, the assessment of statistically significant differences in the average score between institutions is carried out using a conventional independent two-sample *t*-test but adjusted for case of unequal group sizes.

Results From Independent Sample T-Test

A summary of the sample statistics is presented in Table 2. According to the results, for most questions, the answers appear to be within a similar range. However, certain minor differences in the cultural values of the survey participants need to be highlighted. For example, participants from DMU and PTC appear to value more highly the importance of having sufficient time for personal and family life as examined by question one (1.75 and 1.69 for DMU and PTC campuses, compared to 2.055 for MFK). Similarly, based on question ten in connection with the importance of thrift to their personal lives, MFK respondents appear to be marginally less conservative than the PTC respondents. The results for the standard deviation indicate reasonable variation in the answers from the participants with that of MFK reporting a slightly higher standard deviation (0.921) compared to the other two institutions.

Moreover, the respondents from the PTC Campus appear to be marginally more persistent and strong-minded with an average score of 2.054 for question eleven compared to an average of 1.788 for MFK and 1.835 for DMU, respectively.

Finally, a very interesting difference among all three campuses is the answer to question fifteen that examines whether or not 'most people can be trusted'. The UK participants appear to be the ones who exhibit most disagreement in such a statement with an average score of 3.84 and a standard deviation of 0.93. The respondents from the South African universities appear more inclined to trust other people (μ– value of 3.16 with standard deviation of 0.987 for PTC and μ– value of 3.44 with s.d. of 0.882 for MFK).

Testing the indifference hypothesis between all three participating institutions further elaborates the cultural diversity of the respondents. According to Table 3 below, a comparison between PTC and MFK reveals the presence of important cultural differences between these two campuses. Based on the Levene's test results as summarised in Table 3, panel A, in seven out of the 20 questions examined, the variance appears to be unequal, violating one of the key assumptions of the independent samples *t*-test (questions 10, 11, 13, 16, 18, 19 and 20). Following these results, the *t*-statistic for these questions is then estimated with the Welch's correction with the findings presented in Table 1, panel B. Out of the 20 questions answered by both PTC and MFK, there is a statistically significant difference in five questions (questions 1, 10, 15, 16 and 20).

Table 2: Sample Statistics And Frequency Of Responses

	Campus	DMU (n=92)	PTC (n=118)	MFK (n=91)	Total (n=301)			Campus	DMU (n=92)	PTC (n=118)	MFK (n=91)	Total (n=301)
Q1	μ	1.750	1.695	2.055	1.821		Q11	μ	2.054	1.788	1.835	1.884
	σ	0.897	0.891	1.047	0.953			σ	0.843	0.761	0.992	0.866
	Std. Error	0.093	0.082	0.110	0.055			Std. Error	0.088	0.070	0.104	0.050
Q2	μ	1.794	1.653	1.703	1.711		Q12	μ	2.207	2.195	2.473	2.282
	σ	0.792	0.881	0.937	0.872			σ	0.989	0.972	1.068	1.012
	Std. Error	0.083	0.081	0.098	0.050			Std. Error	0.103	0.090	0.112	0.058
Q3	μ	1.783	1.839	1.659	1.767		Q13	μ	2.630	2.839	2.868	2.784
	σ	0.708	0.915	0.846	0.836			σ	0.911	0.795	0.636	0.794
	Std. Error	0.074	0.084	0.089	0.048			Std. Error	0.095	0.073	0.067	0.046
Q4	μ	1.576	1.653	1.571	1.605		Q14	μ	3.152	3.212	3.286	3.216
	σ	0.759	0.900	0.956	0.876			σ	0.864	0.904	1.003	0.922
	Std. Error	0.079	0.083	0.100	0.051			Std. Error	0.090	0.083	0.105	0.053
Q5	μ	1.761	1.788	1.637	1.734		Q15	μ	3.163	3.441	3.846	3.478
	σ	0.732	0.932	0.837	0.846			σ	0.987	0.882	0.930	0.965
	Std. Error	0.076	0.086	0.088	0.049			Std. Error	0.103	0.081	0.098	0.056
Q6	μ	2.120	2.212	2.209	2.183		Q16	μ	3.033	3.136	3.451	3.199
	σ	0.862	0.856	0.863	0.858			σ	1.063	0.969	1.195	1.080
	Std. Error	0.090	0.079	0.091	0.050			Std. Error	0.111	0.089	0.125	0.062
Q7	μ	1.511	1.534	1.626	1.555		Q17	μ	2.946	2.619	2.824	2.781
	σ	0.687	0.844	1.007	0.853			σ	0.918	1.053	1.198	1.067
	Std. Error	0.071	0.078	0.106	0.049			Std. Error	0.096	0.097	0.126	0.062
Q8	μ	1.957	2.017	2.011	1.997		Q18	μ	2.826	2.932	2.714	2.834
	σ	0.901	0.887	1.038	0.936			σ	1.075	0.985	1.259	1.101
	Std. Error	0.094	0.082	0.109	0.054			Std. Error	0.112	0.091	0.132	0.064
Q9	μ	1.707	1.585	1.747	1.671		Q19	μ	3.011	2.534	2.429	2.648
	σ	0.871	0.880	1.060	0.935			σ	1.084	1.027	1.222	1.129
	Std. Error	0.091	0.081	0.111	0.054			Std. Error	0.113	0.095	0.128	0.065
Q10	μ	2.337	2.119	2.429	2.279		Q20	μ	3.109	2.746	3.253	3.010
	σ	0.829	0.730	0.921	0.830			σ	1.172	1.031	1.270	1.168
	Std. Error	0.086	0.067	0.097	0.048			Std. Error	0.122	0.095	0.133	0.067

Table 3: Summary Of Results From Independent *t*-test (Potchefstroom vs. Mafikeng)

Panel A - Levene's Test For Equality Of Variances

	Q01	Q02	Q03	Q04	Q05	Q06	Q07	Q08	Q09	Q10**
F-statistic	0.410	0.267	0.337	0.078	0.215	0.000	2.142	0.968	1.449	13.067
Sig.	0.523	0.606	0.562	0.780	0.643	0.989	0.145	0.326	0.230	0.000
	Q11**	**Q12**	**Q13****	**Q14**	**Q15**	**Q16****	**Q17**	**Q18****	**Q19***	**Q20****
F-statistic	8.878	1.763	6.771	0.253	1.219	10.188	0.691	16.589	6.082	10.305
Sig.	0.003	0.186	0.010	0.615	0.271	0.002	0.407	0.000	0.014	0.002

Panel B – *t*-test For Equality Of Means

	Q01	Q02	Q03	Q04	Q05	Q06	Q07	Q08	Q09	Q10
t-statistic	-2.681**	-0.402	1.454	0.629	1.211	0.026	-0.722	0.045	-1.210	-2.635**
Sig.	0.008	0.688	0.148	0.530	0.227	0.980	0.471	0.964	0.228	0.009
µ-Diff	-0.360	-0.051	0.180	0.081	0.151	0.003	-0.092	0.006	-0.163	-0.310
Std Error	0.134	0.126	0.124	0.129	0.124	0.120	0.128	0.133	0.134	0.118
	Q11	Q12	Q13	Q14	Q15**	Q16*	Q17	Q18	Q19	Q20**
t-statistic	-0.375	-1.961	-0.294	-0.558	-3.217	-2.048	-1.317	1.361	0.662	-3.101
Sig.	0.708	0.051	0.769	0.577	0.002	0.042	0.189	0.175	0.509	0.002
µ-Diff	-0.047	-0.278	-0.029	-0.074	-0.405	-0.315	-0.206	0.218	0.105	-0.507
Std Error	0.125	0.142	0.099	0.132	0.126	0.154	0.156	0.160	0.159	0.164

Notes: * Significant at the 0.05 level
        ** Significant at the 0.01 level

The highest mean difference is reported for question 20 with the respondents of the MFK Campus appearing to disagree more to the statement that 'failure is one's own fault'. Apart from question 16, all other differences in the responses are significant at the one-percent level.

As expected, the most significant difference in responses is reported when the South African campuses are compared with DMU. According to Table 4, panel B, there is evidence of statistically significant differences in the answers provided by the PTC student and those of the DMU. This is reported in six out of the 20 questions covered, with the most important mean difference of -0.477 in question 19 *(t*-value of -3.259).

Table 4: Summary Of Results From Independent *t*-test (Potchefstroom vs. De Montfort)
Panel A - Levene's Test For Equality Of Variances

	Q01	Q02	Q03*	Q04	Q05	Q06	Q07	Q08	Q09	Q10**
F-statistic	0.0205	0.0358	4.3780	1.0429	3.0199	0.0000	1.3027	0.9271	0.0095	7.3664
Sig.	0.8863	0.8501	0.0376	0.3083	0.0837	0.9999	0.2550	0.3367	0.9225	0.0072
	Q11	Q12	Q13*	Q14	Q15	Q16	Q17*	Q18	Q19	Q20
F-statistic	1.9669	0.1302	4.9625	2.1961	0.6807	1.7040	4.1812	2.5544	0.7255	2.6105
Sig.	0.1623	0.7186	0.0270	0.1399	0.4103	0.1932	0.0421	0.1115	0.3953	0.1077

Panel B – *t*-test For Equality Of Means

	Q01	Q02	Q03	Q04	Q05	Q06	Q07	Q08	Q09	Q10*
t-statistic	-0.443	-1.202	0.503	0.653	0.231	0.773	0.212	0.487	-0.999	-1.994
Sig.	0.658	0.231	0.615	0.514	0.818	0.441	0.832	0.627	0.319	0.048
µ -Diff	-0.055	-0.141	0.056	0.076	0.027	0.092	0.023	0.060	-0.122	-0.218
Std Error	0.124	0.117	0.112	0.117	0.118	0.119	0.108	0.124	0.122	0.109
	Q11*	Q12	Q13	Q14	Q15*	Q16	Q17*	Q18	Q19**	Q20*
t-statistic	-2.399	-0.085	1.740	0.484	2.148	0.732	-2.400	0.744	-3.259	-2.384
Sig.	0.017	0.932	0.084	0.629	0.033	0.465	0.017	0.458	0.001	0.018
µ -Diff	-0.266	-0.012	0.209	0.060	0.278	0.103	-0.327	0.106	-0.477	-0.363
Std Error	0.111	0.136	0.120	0.123	0.129	0.141	0.136	0.143	0.146	0.152

Notes: * Significant at the 0.05 level
        ** Significant at the 0.01 level

The examination of variance equality reveals that the smallest number of variance inequality is reported between the PTC Campus and the DMU (questions 3, 10, 13 and 17).

Finally, the comparison between the MFK Campus and the DMU reveals the biggest difference among all three institutions. Using the Levene's test we report unequal variances in six out of the 20 questions examined and

especially in the five ones before the last that deal with views regarding organisation and management (questions 15-19). Testing for equality of means further supports these findings, with significant differences reported in questions 1, 13, 15, 16, 19 and 20 (Table 5, panel B). The largest differences are reported for questions 15 and 19 ($\mu-$ difference of 0.683 and -0.582, *t*-values of 4.819 and -3.409, respectively).

Table 5: Summary Of Results From Independent *t*-test (Mafikeng vs. De Montfort)
Panel A - Levene's Test For Equality Of Variances

	Q01	Q02	Q03	Q04	Q05	Q06	Q07*	Q08	Q09	Q10
F-statistic	0.2320	0.5156	2.2518	1.4570	1.8871	0.0002	6.2728	0.0222	1.1202	1.1076
Sig.	0.6306	0.4737	0.1352	0.2290	0.1712	0.9899	0.0131	0.8816	0.2913	0.2940
	Q11	Q12	Q13**	Q14	Q15	Q16	Q17*	Q18*	Q19**	Q20
F-statistic	2.4045	0.8615	22.1676	2.8608	2.5358	3.1058	6.1790	5.8520	7.4119	1.9941
Sig.	0.1227	0.3546	0.0000	0.0925	0.1130	0.0797	0.0138	0.0165	0.0071	0.1596

Panel B – *t*-test For Equality Of Means

	Q01*	Q02	Q03	Q04	Q05	Q06	Q07	Q08	Q09	Q10
t-statistic	2.116	-0.704	-1.069	-0.037	-1.063	0.700	0.905	0.379	0.284	0.708
Sig.	0.036	0.483	0.286	0.971	0.289	0.485	0.367	0.705	0.777	0.480
μ-Diff	0.305	-0.090	-0.123	-0.005	-0.124	0.089	0.116	0.054	0.041	0.092
Std. Error	0.144	0.128	0.115	0.128	0.116	0.128	0.128	0.144	0.143	0.129
	Q11	Q12	Q13*	Q14	Q15**	Q16*	Q17	Q18	Q19**	Q20
t-statistic	-1.611	1.748	2.049	0.965	4.819	2.500	-0.769	-0.646	-3.409	0.798
Sig.	0.109	0.082	0.042	0.336	0.000	0.013	0.443	0.519	0.001	0.426
μ-Diff	-0.219	0.266	0.238	0.134	0.683	0.418	-0.121	-0.112	-0.582	0.144
Std. Error	0.136	0.152	0.116	0.138	0.142	0.167	0.158	0.173	0.171	0.181

Notes: * Significant at the 0.05 level
        ** Significant at the 0.01 level

Overall, these findings suggest that on the basis of question 15's response, the MFK accounting students on average appear not to support the view that "most people can be trusted", while based on the results from question 19, the UK students appear to be less rule-abiding and acting on their own individual beliefs.

Cultural Dimensions

The cultural dimensions of accounting students at MFK and PTC in South Africa and the DMU in the United Kingdom are set out in Table 6 below.

Table 6 – Index rating: Cultural Dimensions Of Accounting Students

	DMU	PTC	MFK
Individualism (IDV)	78.91	77.46	59.51
Power distance (PDI)	11.68	20.97	24.89
Masculinity vs. femininity (MAS)	21.09	53.22	14.95
Uncertainty avoidance (UAI)	59.95	69.07	88.57

The results indicate that individual rights, as measured by *individualism*, are more dominant at PTC (77.46) than MFK (59.51). There is a strong similarity between *individualism* at the DMU and PTC (a score of 78.91 and 77.46, respectively), perhaps indicative of the European roots at PTC. Societies and cultures with a preference for *individualism* tend to also have a preference for a loosely-knit social framework. Individuals at PTC and DMU are therefore expected to take care of themselves and their immediate families only, while individuals at MFK expect their relatives to look after them in exchange for unconditional loyalty.

Power distance data revealed that hierarchical orders or the fact that power is not distributed equally is marginally more acceptable at MFK (24.89) than PTC (20.97). *Power distance* at DMU (11.68) is lower than both MFK (24.89) and PTC (20.97). According to Gray (1988:7), cultures with lower *power distances* strive for power equalisation and demand justification for power inequalities. Power inequalities will therefore more often be questioned at the DMU, while PTC and MFK will accept power inequalities more readily.

A notable difference relating to *masculinity* versus *femininity* was revealed. The *masculinity* versus *femininity* cultural dimension relates to the social implications of being born as a male or a female. According to Verma (2000:11), *masculinity* stands for qualities such as assertiveness and material success, whereas *femininity* stands for qualities such as caring relationships and quality of life. In addition, masculine dimensions include a preference for showing off, achievement, heroism, assertiveness, making money, thinking big, etc. On the contrary, feminine dimensions include a preference for putting relationships with people before money, helping others, caring for the weak, quality of life, preservation of the environment, etc. It can therefore be concluded that attributes such as assertiveness and material success are significantly more important at the PTC (53.22) than both MFK (14.95) and DMU (21.09).

Uncertainty avoidance, or ways of dealing with uncertainty, was assessed to be higher at MFK (88.57) than PTC (69.07). The fundamental issue is how a society reacts to the fact that the future is unknown. Cultures with a higher uncertainty orientation often punish deviation from norms to encourage conformity (Moustafa, Slaubaugh & Wang, 2008:539). In essence, the dimension relates to the degree to which the members of society feel uncomfortable with uncertainty and ambiguity. Low *uncertainty avoidance* is an indication that members of a society feel in general secure and will not attempt to control the future through laws. In addition, different ideas and viewpoints will be more easily tolerated as well as a bigger willingness to take risks. Different viewpoints at PTC may therefore more easily be tolerated than at MFK. The fact that *uncertainty avoidance* was assessed to be the highest at MFK might therefore be an indication that members of this society feel anxious about the future, which might result in measures to add security and avoid risk. *Uncertainty avoidance* at DMU (59.95) was assessed to be lower than both the South African campuses, indicating that people are relatively more secure about the future and that different viewpoints are more easily tolerated at the UK University.

Accounting Values

The cultural dimensions considered previously are now extended to the accounting values of Gray (1988:5). Cultural dimensions relevant to *professionalism* versus *statutory control* as well as cultural dimensions relevant to *uniformity* versus *flexibility* are set out in Figure 1.
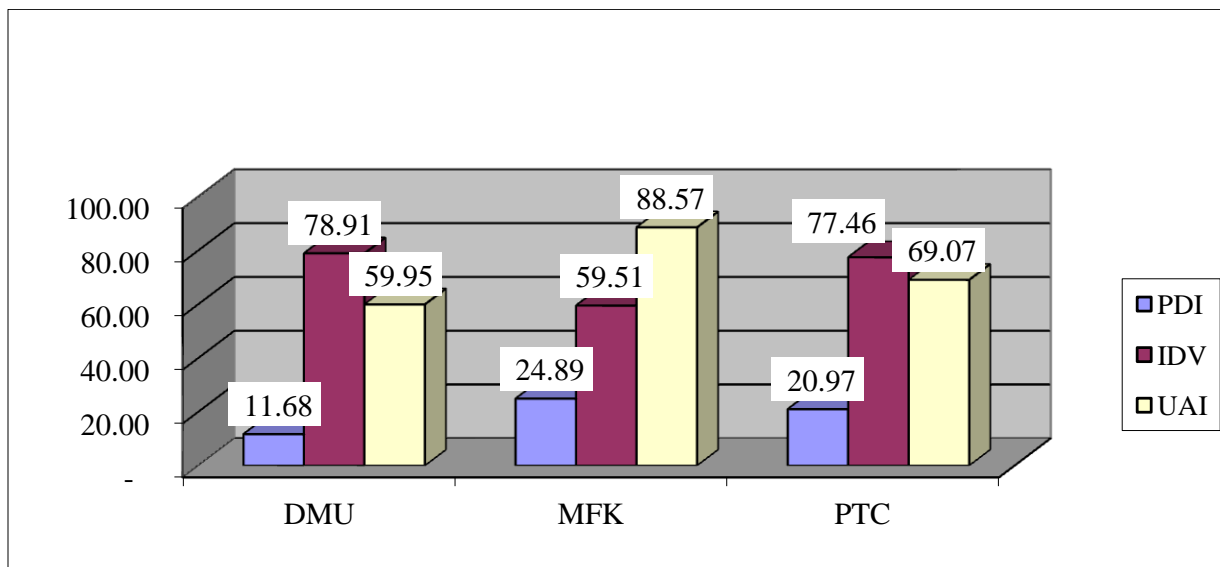

Figure 1 – Professionalism Versus Statutory Control/Uniformity Versus Flexibility
Note: PDI = Power distance   IDV = Individualism   UAI = Uncertainty avoidance

Gray's first hypothesis suggests that a higher ranking in terms of *individualism* and a lower ranking in terms of *uncertainty avoidance* and *power distance* are indicative of a preference for *professionalism*. Our research revealed that, due to a higher *individualism* ranking and lower *uncertainty avoidance* and *power distance* rankings, PTC (IDV = 77.46/ UAI = 69.07/PDI = 20.97) will rank higher in terms of *professionalism* compared to MFK (IDV = 59.51/UAI = 88.95/PDI = 24.89*). Individualism* at DMU (78.91) is ranked higher than both the South African campuses. The difference between DMU and PTC (77.46) is, however, only marginal compared to the difference with MFK (59.51). *Uncertainty avoidance* and *power distance* at DMU (UAI = 59.95/PDI = 11.68) are lower than both the South African campuses. *Professionalism* will therefore be more prominent at the UK University.

Gray's second hypothesis suggests that higher *uncertainty avoidance* and *power distance* rankings and a lower *individualism* ranking are indicative of a preference for *uniformity,* suggesting that MFK (UAI = 88.57/PDI = 24.89/IDV = 59.51) will rank higher than PTC (UAI = 69.07/PDI = 20.97/IDV = 77.46) in terms of *uniformity*. Students at PTC will therefore be more *flexible* when applying accounting practices and principles. Students at DMU (UAI = 59.95/PDI = 11.68/IDV = 78.91) will, however, be even more *flexible* when applying accounting practices as the *power distance* and *uncertainty avoidance* rankings are lower and the *individualism* ranking is higher than both the South African campuses. Cultural dimensions relevant to *conservatism* versus *optimism* are set out in Figure 2.
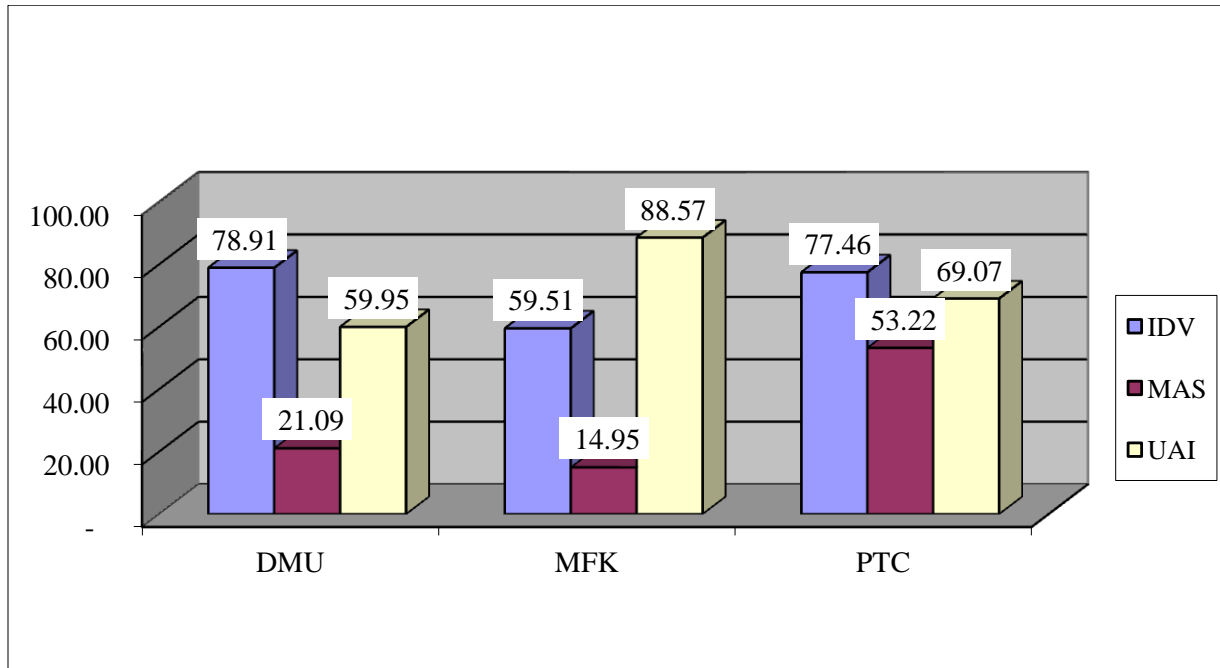

Figure 2 – Conservatism Versus Optimism
Note: IDV = Individualism   MAS = Masculinity   UAI = Uncertainty avoidance

Gray's third hypothesis suggests that higher *uncertainty avoidance* and lower *individualism* and *masculinity* are indicative of a preference for *conservatism*. Comparing MFK (UAI = 88.57/IDV = 59.51/MAS = 14.95) to PTC (UAI = 69.07/IDV = 77.46/MAS = 53.22), higher *uncertainty avoidance* together with lower *individualism* and *masculinity* rankings at MFK suggest that students at MFK will be more cautious in their approach as opposed to a more optimistic and risk-taking approach at PTC. When comparing DMU (UAI = 59.95/IDV = 78.91/MAS = 21.09) to MFK, it is also evident that students at MFK will be more cautious in their approach to measurement due to a higher *uncertainty avoidance* ranking together with lower individualism and masculinity rankings. If DMU is compared to PTC, a decisive conclusion cannot be reached as *individualism* and *uncertainty avoidance* rankings indicate that *conservatism* is more relevant at PTC, while the lower *masculinity* ranking is in favour of *conservatism* at DMU. Because Gray (1988:11) indicated that *masculinity* is of somewhat

lesser importance relating to accounting values and based on two out of three indicators, however, we suggest that *conservatism* is favoured at PTC. Cultural dimensions relevant to *secrecy* versus *transparency* are set out in Figure 3.
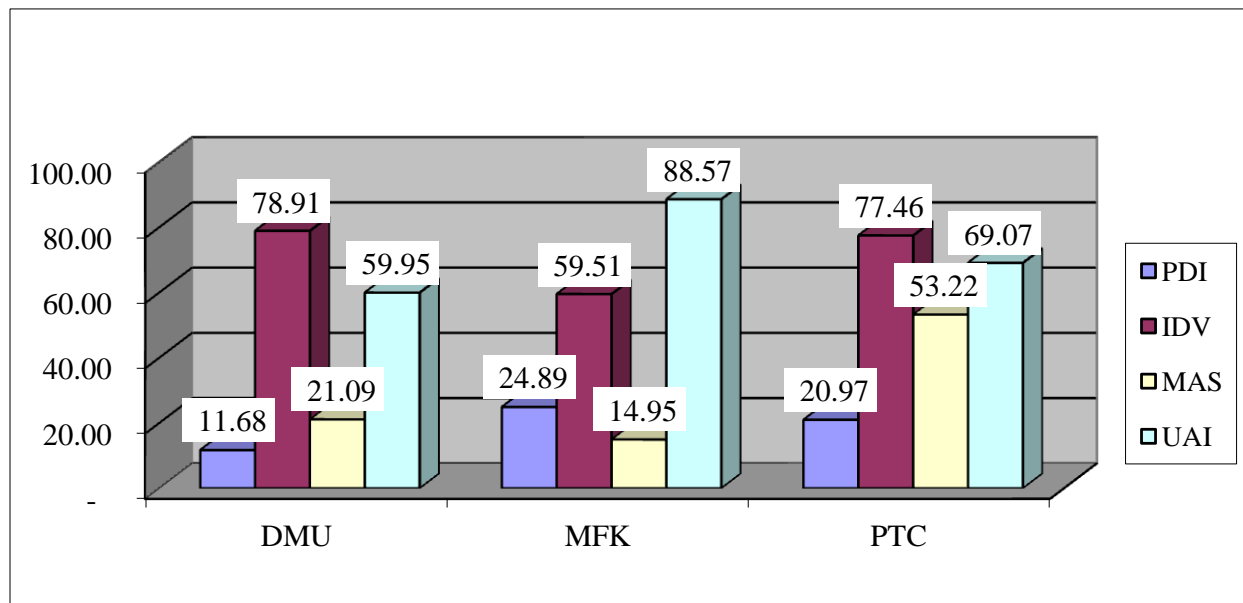

Figure 3 – Secrecy Versus Transparency
Note: PDI = Power distance; IDV = Individualism; MAS = Masculinity; UAI = Uncertainty avoidance

Gray's fourth and final hypothesis suggests that a higher ranking in terms of *uncertainty avoidance* and *power distance* and a lower ranking in terms of *individualism* and *masculinity* are indicative of a preference for *secrecy*. In comparing PTC (UAI = 69.07/PDI = 20.97/IDV = 77.46/MAS = 53.22) and MFK (UAI = 88.57/PDI = 24.89/IDV = 59.51/MAS = 14.95), our research suggests that, based on higher *uncertainty avoidance* and *power distance* as well as lower *individualism* and *masculinity* rankings, *secrecy* will be favoured at MFK. Students at MFK will therefore be more cautious in their approach as opposed to a more optimistic and risk-taking approach at PTC. Students at MFK should therefore prefer confidentiality and the restriction of disclosure of information as opposed to a more transparent, open and publicly accountable approach. As opposed to a preference for confidentiality at MFK, students at DMU (UAI = 59.95/PDI = 11.68/ IDV = 78.91/MAS = 21.09) will be more transparent and open in their approach. All four indicators were in favour of *transparency* at DMU in comparison with MFK, while three out of the four indicators *(individualism, power distance* and *uncertainty avoidance)* revealed that a preference for a transparent approach prevails at DMU when compared to PTC *(Masculinity* was also outscored in the third hypothesis by Gray).

Accounting Value Rankings

Based on the above, we allocate the various accounting values to the three institutions included in the survey using a rating system. Therefore, if ratings are allocated in units of 1 to 3, where 3 represents a high preference for an accounting value and 1 is representative of a low preference for an accounting value, we find a perfect linear relationship between the cultural values identified by Hofstede and the accounting values and related hypotheses of Gray. According to Figure 4, the results obtained relating to all four the accounting values of Gray were in the order MFK – PTC and then DMU. The accounting values assigned to PTC are found to be constant between the other two institutions, perhaps symptomatic of the measure of influence by the African environment on the European culture.
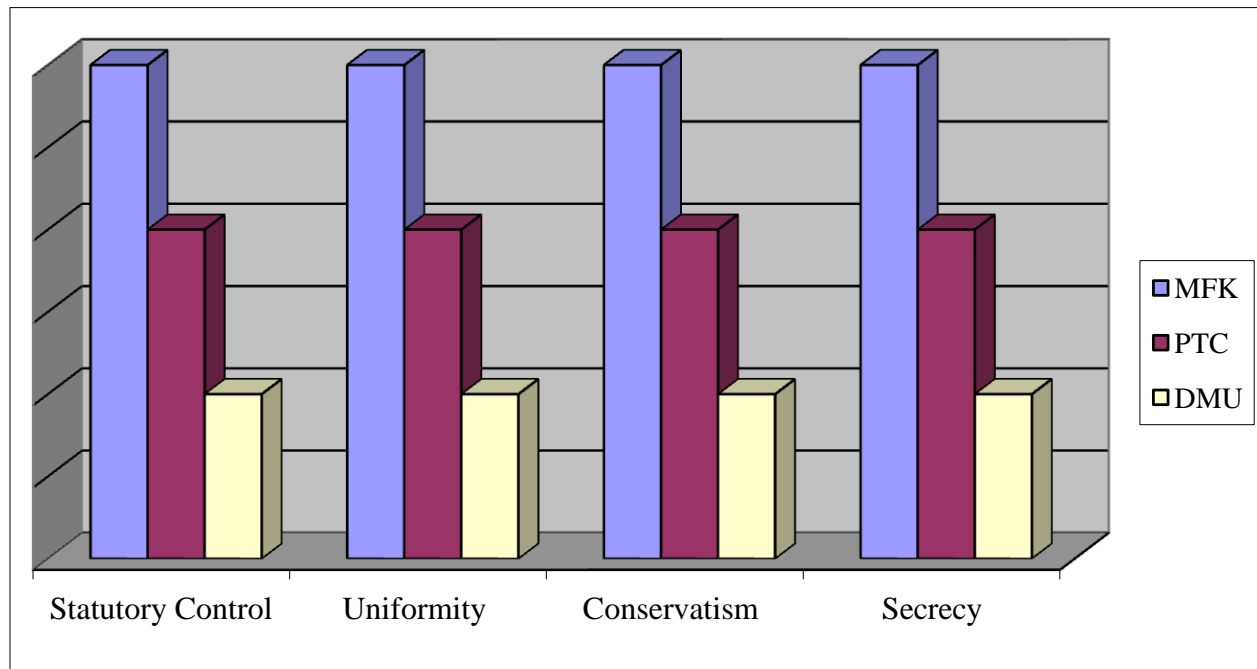
Figure 4 – Classification of accounting values

When adopting accounting standards on a global basis, we suggest that two aspects should be considered. Firstly, in order to avoid discrepancies in the process of adopting accounting standards due to different views and backgrounds of preparers of financial statements (Perramon & Amat, 2006:6; Diaconu & Coman, 2006:11; Procházka, 2010:19; Marrero & Brinker, 2007:18), we suggest that prescriptive guidance should be provided in connection with the adoption of these accounting standards. Based on this assumption, we suggest that the following accounting values of Gray are required:

- *Statutory control* in order to adhere to a single set of prescribed rules and regulations in connection with accounting transactions and related disclosure thereof;
- *Uniformity* in order to, irrespective of different backgrounds, apply uniform accounting practices and principles; and
- *Transparency* in order to be open and publicly accountable.

We found that students at MFK have two of the three accounting values deemed necessary to adopt a global *prescriptive* accounting framework. The tendency towards *secrecy* as opposed to *transparency* is, however, not conducive to the concept of global accounting practices at MFK.

Based on our evaluation of accounting values, we found that the concept of a global *prescriptive* accounting framework will be more acceptable to accounting students at PTC when compared to DMU. If PTC is compared to MFK, our study revealed a preference for *prescriptive* accounting rules at MFK.

In the second instance, if the fact that IFRS is based on principles ((Ernst & Young, 2005:1) is taken into consideration; we suggest that the following accounting values of Gray should be present:

- *Professionalism* in order to apply professional judgement to specific scenarios;
- *Flexibility* in order to adapt to individual situations and specific scenarios; and
- *Transparency* for purposes of public accountability.

Our research revealed that all these attributes were present at DMU, suggesting that the principles contained in IFRS should be more readily acceptable in the UK. The South African students, and specifically MFK, will find it more difficult to deal with the concept of accounting standards based on principles.

DISCUSSION AND CONCLUSION

Our evaluation of cultural dimensions of the three campuses in the empirical study revealed that *masculinity* at PTC is significantly higher than the other two campuses, i.e. MFK and DMU. *Masculinity* at PTC overpowered other cultural indicators 2-1 and 3-1 in deriving at the *conservatism vs. optimism* and *secrecy vs. transparency* accounting values in the empirical study. When considering their backgrounds, it is evident that the students at PTC are predominantly white students from privileged apartheid-era backgrounds. *Masculinity* stands for qualities such as assertiveness and material success. Societies with high *masculinity* ratings value attributes such as income, recognition and advancement. Because the *masculinity* rating at PTC is significantly higher than the other two campuses, the results could be indicative of the dominant nature and materialistic views of individuals from privileged apartheid-era backgrounds in South Africa. Nadar (2008:1) confirmed this statement by suggesting that the nature of Afrikaner hegemonic masculinity is being challenged by the democratic order ushered in 1994. It is therefore possible that the concept of a *transparent* and *flexible* approach in applying IFRS is overpowered by individualistic views at PTC.

We observed that the cultural dimension relating to *individualism* at MFK (59.51) was notably lower than PTC (77.46) and DMU (78.91). A high score for this dimension focuses on the "I" whereas a low score focuses on the "we" of a group of individuals. Our study further revealed that *uncertainty avoidance* at MFK (88.57) was higher than PTC (69.07) and DMU (59.95). A high score for this dimension is indicative of a preference for extensive and rigid rules to decrease uncertainty. Deviations from norms will therefore be punished to encourage conformity, individual rights and deviations from norms may therefore not be considered a priority at MFK. We therefore suggest, based on the mentioned cultural dimensions, that the concept of a uniform set of global accounting standards should be more acceptable at MFK due to a lower preference for individual rights or individual accounting scenarios and a deviation from norms.

Our study revealed that the cultural dimension relating to *power distance* at DMU (11.68) was markedly lower than PTC (20.97) and MFK (24.89). It is believed that societies with low *power distance* ratings do not accept hierarchical orders and demand justification for power inequalities. We therefore suggest that the mentioned cultural dimension is not conducive of a prescriptive set of global accounting standards pertaining to all accounting scenarios.

We concluded from the accounting values of Gray that the South African students, and more specifically the MFK students, have the majority of the attributes (except for *secrecy*) required to adopt a global set of accounting standards and that the students from the UK will most probably be able to cope with the principles contained in IFRS. As a result, we suggest that South African students should firstly be acquainted with the fact that *transparency* is required to adopt a global set of accounting standards, after which they should receive guidance to apply *professionalism* and *flexibility* pertaining to specific IFRS principles.

Considering the findings of this study, it is clear that there are definite cultural differences not only between South Africa and UK accounting students, but also within the South African context. Our recommendations are not only limited to accounting education. It may be argued that the individuals included in the survey are representative of other role-players in the accounting environment, as human beings assign specific values to their own reality within a specific group of society. Practitioners, governing bodies and standard setters should also take note of the results and related recommendations when adopting the IFRS on a global basis.

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