

Cultural values and financial reporting practices: contemporary tendencies in Eastern European countries

R.M. Ammar ZAHID*, Alina ȚARAN**,
F.N. Can SIMGA-MUGAN***

Abstract

Financial reporting practices may never be uniform because of contextual factors that differentiate countries and businesses all over the world. By following Gray's (1988) approach, this study investigates how cultural factors influenced financial reporting practices from three representative Eastern-European countries, Lithuania, Poland, and Romania, during the 2000-2015 period. Confirmatory factor analysis and structural equation modelling indicate that societies' orientation towards uncertainty avoidance and individualism influence accounting values of professionalism, uniformity, conservatism, and secrecy. Masculinity dominance enhances accounting for prudential practices and limited disclosure. These findings suggest that international accounting harmonization cannot overcome cultural boundaries. Standard-setters, practitioners, and stakeholders need to be aware of this.

Keywords: accounting values, cultural dimensions, Gray's theory, Eastern Europe, structural equations modelling

Introduction

National accounting systems have developed in time under the influence of political and socio-economic factors (Choi and Meek, 2011; Nobes and Parker, 2010). Despite worldwide accounting harmonization process, and the extended international adoption of International Financial Reporting Standards (IFRS)

* R.M. Ammar ZAHID, Ph.D. is assistant professor at Virtual University of Pakistan; e-mail: amrzahid@gmail.com.

** Alina ȚARAN is PhD candidate at Alexandru Ioan Cuza University of Iasi, Iasi, Romania and lecturer at Izmir University of Economics, Izmir, Turkey; e-mail: taran.alina.ro@gmail.com.

*** F.N. Can SIMGA-MUGAN, Ph.D. is professor at Izmir University of Economics, Izmir, Turkey; e-mail: can.mugan@izmirekonomi.edu.tr.

(Zimmermann and Werner, 2013), differences persist among financial reporting around the world (Gray *et al.*, 2015). Specific preferences for certain measurement methods or disclosure (Braun and Rodriguez, 1988), differences in enforcement of the standards, connection between accounting and taxation, dominant financing sources, and other business environmental and institutional factors lead to diversity in financial reporting practices (Hodgdon *et al.*, 2008; Landsman *et al.*, 2012; Leuz and Wysocki, 2016; Nobes, 2013; Nobes and Parker, 2010). Culture is one of the fundamental characteristics which is considered a determinant of business and financial reporting practices (Akman, 2011; Choi and Meek, 2011; Nobes and Parker, 2010). Sidney J. Gray (1988) was one of the first researchers who theoretically explained this influence, developing a set of hypotheses that relate national cultural dimensions to a set of four accounting characteristics defined as values of accounting systems. His theoretical hypotheses were intensively debated and numerous empirical studies contradict in testing them. However, less evidence exists for changing patterns of cultural factors and the relationship between cultural transformations and financial reporting practices. Culture changes slowly over time (Doupnik and Tsakumis, 2004; Doupnik *et al.*, 1990), and its effects on business environment and financial reporting cannot be neglected in the long run (S. J. Gray *et al.*, 2015). This paper investigates the relations between cultural dimensions and accounting values, as defined by Gray's theory while taking into account the changes of cultural and financial reporting patterns over time. Following a proxy development approach, as proposed by Sudarwan and Fogarty (1996), and Noravesh, Dilami, and Bazaz (2007), our study applies a contemporary system of measuring cultural and accounting values, and empirically tests Gray's (1988) hypotheses for three representative Eastern European countries Lithuania, Poland, and Romania. Reflecting the broad and diverse context of this under-researched region (Albu *et al.* 2017), these countries symbolise the main geographical clusters defined in CEE studies, Baltic countries (represented by Lithuania), Visegrad countries (represented by Poland), and South-Eastern group of countries (represented by Romania).

With distinct historical roots, Eastern European countries shared a similar destiny in the post-war period, being dominated by a soviet regime. After the 1990s revolutions, they faced numerous transition reforms to market economy, and in 2000s, they became members of the European Union. The accounting systems of these countries also evolved after the fall of communism, following the model of western European countries (Albu and Albu, 2012; Grabinski *et al.*, 2014; Lakis *et al.*, 2008; Lamjav and Boston, 2008). Nowadays, Eastern European countries are IFRS adopters, requiring or permitting IFRS for different types of entities, according to European Union regulations. The current study explores the recent transformations of Lithuanian, Polish, and Romanian culture in pre- and post-accession period to the EU, and the related changes of financial reporting practices of listed companies, during the 2000-2015 period. Thus, it has a twofold contribution to business management, international business, accounting and behavioural

literature. First, it reveals cultural and financial reporting differences and similarities in the Eastern-European region. Second, it proves that cultural factors influence accounting practices, and despite regional characteristics, the national setting represents a boundary in the effective convergence of financial reporting practices.

To the best of our knowledge, this is the first empirical test of Gray's hypotheses applied to Eastern European financial reporting practices. It proposes a measurement system based on a contemporary set of proxies for both cultural dimensions and accounting values. Moreover, it applies Gray's theory to a unique context, old soviet countries that faced intensive political, economic and technological changes in their transition to market economy. It is expected that all these changes might have transformed the social beliefs, values, and business practices in the Eastern-European region, with visible implications on financial reporting practices.

Our results show that financial reporting is nowadays influenced by culture. Orientation towards uncertainty avoidance and individualism determine accounting professionalism, uniformity, conservatism, and secrecy. Moreover, societies' masculinity characteristics determine conservatism and secrecy in financial reporting. These findings suggest that standard-setters, policy-makers, investors and other stakeholders should be aware of the countries' cultural context and of cultural influences on accounting, regardless of applied financial reporting standards.

The paper is structured as shown: section 1 briefly presents Gray's theory and literature development on the topic; section 2 illustrates the main cultural and financial reporting characteristics of the selected countries; section 3 explains the methodological approach, whereas section 4 summarises the empirical findings. The paper ends with conclusions and future research directions.

1. Theoretical background and Gray's hypotheses

The study of the connection between culture and accounting emerged in the 1960s (Doupnik and Tsakumis, 2004). The most representative and debated paper on this topic is Sidney J Gray's (1988), which defines four accounting values that characterise accounting systems. He presents a theoretical development of a set of hypotheses that explains the relation between cultural and accounting dimensions at the country-level. Accounting values are defined through opposite terms, which express the presence or absence of each of the four characteristics of accounting systems: professionalism versus statutory control, uniformity versus flexibility, conservatism versus optimism, and secrecy versus transparency.

The professionalism value expresses the liberty of professional judgment and the involvement of professionals in proposing financial reporting standards and regulations. The uniformity value reflects the attitude towards prescriptive requirements or methods regardless of firm-specific characteristics. The conservatism value defines the attitude towards risk, future events and valuation of

financial position and performance of the firm, and the secrecy value expresses the tendency towards confidentiality and limited financial disclosure.

The cultural dimensions considered by Gray are the well-known dimensions of national cultures defined by Hofstede (1980): power distance, individualism, masculinity, and uncertainty avoidance. Power distance refers to hierarchy versus equality among individuals, and the strength of their social status. Individualism characterises societies oriented towards individual activities and weak relationships in contrast to collectivism, which reflects strong connections among people and group orientation. Masculinity is characterized by the tendency to compete, fight for power, and distinctive gender roles, by contrast to feminine societies, focused on quality of life and interpersonal relationships. Uncertainty avoidance indicates the attitude towards risk and unexpected events (Hofstede, 1980). According to Gray's theory, as shown in Table 1, a country is more likely to have an accounting system characterised by a higher level of professionalism if it scores lower on power distance and uncertainty avoidance, and higher on individualism. Similarly, the level of uniformity is more likely to be higher if the country scores high in distance and uncertainty avoidance, and low on individualism. A higher level of accounting conservatism may be determined by high uncertainty avoidance, low individualism and masculinity, whereas secrecy is positively determined by power distance and uncertainty avoidance, and negatively influenced by individualism and masculinity.

Table 1. Cultural dimensions - Accounting Values Theoretical Relationships

Hofstede's Cultural Dimensions (1980)	Gary's Accounting Values (1988)			
	Professionalism (Prof)	Uniformity (Uni)	Conservatism (Conv)	Secrecy (Secr)
Power distance (PD)	Negative	Positive	----	Positive
Individualism (IND)	Positive	Negative	Negative	Negative
Masculinity (MvF)	----	----	Negative	Negative
Uncertainty Avoidance (UA)	Negative	Positive	Positive	Positive

Source: authors' processing after Gray (1988)

A consistent stream of literature followed Gray's (1988) article, providing critical perspectives and empirical evidence (Chanchani and MacGregor, 1999; Douppnik and Tsakumis, 2004), but was hardly remarkable in terms of further development of his theory. Some critics refer to the reliability of Hofstede's constructs (Heidhues and Patel, 2011) which attempt to explain the general similarities and differences in cultures around the world (Douppnik and Tsakumis, 2004). Although other cultural measurements and categorisations emerged in time, they seem similar to Hofstede's reasoning. Even Hofstede extended the number of cultural dimensions with two more dimensions, long-term orientation and indulgence (Choi and Meek, 2011), but these are seen as extensions of the original

dimensions of uncertainty avoidance and masculinity. Long-term orientation reflects the attitude towards future events, and the way they shape current activities, being related to attitude towards risk as expressed by the uncertainty avoidance dimension. Indulgence refers to personal rewards, and desire for leisure and fun, being connected with the quality of life characteristics of society, as defined by the masculinity versus femininity dimension. As Gray's hypotheses only refer to the four traditional cultural dimensions, this study empirically tests his approach, and measures the cultural influence on accounting practices taking into account power distance, individualism, masculinity, and uncertainty avoidance characteristics.

Other critics indicate that Gray's approach, and further studies based on his framework are subjectively quantified and narrowly focused, having theoretical and methodological limitations (Heidhues and Patel, 2011). Indeed, the measurement of cultural and accounting values is challenging and questionable (Chanchani and Willett, 2004; Douppnik and Tsakumis, 2004), and the identification of some rigorous measurements is desired. Most of the previous studies tested one or more of Gray's hypotheses, or refined hypotheses inspired by Gray's framework by taking into account Hofstede's score for cultural dimensions and developing surveys to measure accounting values based on accountants' attitudes or beliefs (Douppnik and Tsakumis, 2004). However, an original approach of proxying cultural and accounting dimensions was revealed in single-country empirical studies of Sudarwan and Fogarty (1996), and Noravesh *et al.* (2007). This approach overcomes the limitations of the static analysis based on score values determined at one moment in time. Moreover, used in a cross-country setting, it may account for the differences and similarities among the contextual factors which shape national culture and financial reporting practices (Heidhues and Patel, 2011). Following this reasoning, this study refines the systems of proxies proposed by Sudarwan and Fogarty (1996), and Noravesh *et al.* (2007) in order to estimate the relations between cultural and accounting dimensions.

Socially-related aspects of accounting, such as professional judgement, managerial decisions or financial reporting practices are under direct influence of cultural values (Chanchani and Willett, 2004; Willett *et al.*, 1997). Thus, it is expected that the effect of cultural factors may be more visible on disclosure practices than on accounting measurement practices. On the other hand, as literature shows, culture influences not only pure accounting and financial reporting aspects, but also tax systems, national institutions, business ethics or auditing practices (Cieslewicz, 2014; Karaibrahimoglu and Cangarli, 2016; Richardson, 2007). However, cultural research in the accounting context highlights the boundaries of the international harmonization process in accounting and financial reporting (Douppnik and Tsakumis, 2004).

2. Regional setting: culture and accounting practices

Besides their geographic proximity, Eastern European countries shared a common destiny at certain moments in history, and form a distinctive cluster within the European region (Albu *et al.*, 2017). Representative for the broad characteristics of the Eastern European region and for the groups of countries that form it, the selected countries of the study shared a similar development path. Over the last century, Lithuania, Poland, and Romania were first brought under German Nazi influence, and then, under Soviet dominance. Nowadays, they are members of the European Union (EU), sharing European values and beliefs. Inevitably, historical events marked the societal values of these countries. Regardless of their inherited characteristics, it is considered that former soviet countries are used to hierarchical ruling and social-class differences, obedience and fear of authorities (Brancu *et al.*, 2015). However, exposure to democratic values, liberty to travel, workforce migration, business internationalisation, and occidental influence that followed communism fall transformed the beliefs of these societies. They should become more oriented towards autonomy and equality values, liberty of expression, individualism or competition (Berg and Van, 2015). The overlap of the two sets of values may enhance the natural conflict between generations in these countries, and may be visible on people's attitude towards work, relations, rules and formalism, risks, or well-being conditions.

National accounting practices of Eastern European countries are generally based on the continental model inspired by accounting regulations of Western European countries. After the 1990s, Romanian accounting followed the French-model, applying first monist, and then, dualist principles (Albu and Albu, 2012). Afterwards, Romanian accounting regulations complied with EU accounting directives, and IAS/IFRS for large or public companies (Ionașcu *et al.*, 2014; Olimid and Calu, 2006). Poland had a German-based model of accounting before Soviet dominance, and then, after liberalisation, a Western European model in line with international accounting tendencies, European Directives and a stepwise IFRS adoption (Lamjav and Boston, 2008). Similarly, the development of Lithuanian accounting system after 1990 was a staged process that led to harmonization of Lithuanian regulations with international accounting tendencies, European Directives and partially IFRS (Lakis *et al.*, 2008; Zverovich *et al.*, 2011). Moreover, it is considered that the accounting practices of these countries are strongly connected with taxation rules (Grabinski *et al.*, 2014; Istrate, 2016), and the main users of financial information are the state, banks, and investors. Capital markets developed in time, facing structural changes after re-opening the main stock exchanges in Poland in 1991, in Romania in 1995, and in Lithuania in 1992, and accounting systems were supposed to be aligned in terms of their evolution (Grabinski *et al.*, 2014).

IFRS adoption was proved beneficial for the financial reporting environment. After IFRS implementation, an increase in transparency and value relevance of financial information and a decrease in the cost of capital of public entities were found in Romania (Ionaşcu *et al.*, 2014; Mironiuc *et al.*, 2015). In Poland, an increase in quality and comparability of financial information and a decrease in cost of capital were reported as well (Grabinski *et al.*, 2014). However, as warned by Legenzova (2012), regarding the Lithuanian context, it is possible that public entities do not follow all the requirements of IFRS although they claim compliance with these standards. Cultural factors may, directly or indirectly, determine such cases, as further investigated.

3. Methodology and data

We investigate Sidney J Gray (1988) hypotheses regarding the influence of cultural dimensions on financial reporting practices of public entities in Eastern European countries: Poland, Romania, and Lithuania. Cultural dimensions and accounting values were measured by proxy variables that help to capture the transformations of these theoretical concepts in time. Following Sudarwan and Fogarty (1996), and Noravesh *et al.* (2007), a refined set of proxies was determined based on theoretical reasoning and exploratory factor analysis.

Table 2 presents the final set of proposed proxies for cultural dimensions, indicating the social aspects that describe the four dimensions defined by Hofstede. Accounting values are proxied based on firm-level practices according to applicable regulations and standards, as reported in Table 3.

Cultural dimensions and accounting values are theoretical concepts that cannot be directly measured. Confirmatory factor analysis (CFA) and structural equation modelling (SEM) are statistical techniques that allow the analysis of the relations among such unobserved or latent constructs through proxy variables (Schreiber *et al.*, 2016). CFA tests the reliability of observed variables, while SEM estimates the tested relationships. For a more detailed explanation of these techniques, we refer to Schreiber *et al.* (2016). In line with Gray's theory that we empirically test, cultural factors and their selected proxies act as independent variables in SEM analysis, whereas accounting values, as dependent variables.

Cultural data are country-level while accounting values data are aggregated, as rate or mean of firm level per countries. The selected sample covers public entities included in the main index of the principal stock markets from Poland (WIG20 index), Romania (BET index), and Lithuania (OMX Vilnius GI Index), at the date of the study. Thus, it includes 12 companies listed on the regulated market of Bucharest Stock Exchange, 20 companies listed on Warsaw Stock Exchange, and 20 companies listed on Nasdaq OMX Vilnius. The analysed period is 2000-2015. It captures selected countries' pre and post-accession period to EU membership of. Thus, the

contemporary cultural transformations determined by EU memberships, and the subsequent changes in accounting practices are covered.

Table 2. Selected proxies for cultural dimensions

Societal characteristics	Explanations	Proxy variables
Power distance (PD): extent of hierarchical relations among individuals		
Use of modern technology*	Dissemination and availability of information reflects the liberty of expression and reaction of people to social events and national ruling. Affordable access to modern information technologies results in greater information availability, equality among individuals and low PD.	P1 Internet usage ratio (Individuals using the Internet as % of total population)
Degree of urbanization**	Life style shapes society's thoughts. If the population is more concentrated in cities, it has faster access to information and resources, which results in low PD.	P2 Urbanization rate (Urban population as % of total)
Attention to education**	People's intellectual abilities, thoughts and awareness of their rights are shaped by education. Societies with high levels of education are oriented towards equality values, and low PD.	P3 Literacy rate (Adult literacy rate of population over 15 years old %)
Uncertainty Avoidance (UA): expectations and attitude towards future reflect society's attitude towards risks		
Investment policy*	A high level of investments is a sign of risk taking, and low UA.	U1 Investment rate (Gross fixed capital formation as % of GDP)
Orientation to future finances*	Savings reflect the fear of uncertainties and a prudential financial budget. High savings express high UA.	U2 Savings rate (Gross domestic savings as % of GDP)
Economic stability of the country*	Economic stability diminishes the fear of future risks and favours low UA.	U3 GDP growth rate (Changes in GDP growth as annual %)
Individualism (IND): extent of unity among people within a community		
Family institution*	Society's tendency towards marriage or divorce expresses its orientation towards individualism or single-status. A high divorce rate and a low marriage rate reflect high IND.	I1 Divorce rate (per 1000 persons) I2 Marriage rate (per 1000 persons)
Attention to education*	Common belief nowadays portrays highly educated people as more independent. Thus, the level of education measures interdependences among people, or their individualistic behaviour.	I3 Higher education rate (Total student enrolment at Bachelor degree as % of total population)
Masculinity (MvF): dominance of a particular gender characteristics in a society		
Social welfare and healthcare*	Distinctive attitudes are attached to particular genders. For instance, carefulness, healthcare and welfare are associated with female behaviour, whereas competition, focus on power and material achievements is associated with male behaviour. Thus, the high level of healthcare facilities reflects a feminist society, whereas the pressure for high individual financial gains proxies male dominance.	M1 Healthcare budget ratio (Health expenditure as % of GDP) M3 Individual income (GNI per capita, PPP current international USD)
Gender roles*	Workforce composition reflects gender roles in society. A male dominated workforce distribution represents a masculine culture.	M2 Gender employment gap (Difference between employment ratio of male vs female population)

* Refined from Sudarwan and Fogarty (1996) and Noravesh *et al.* (2007).

** As proposed by Sudarwan and Fogarty (1996) and Noravesh *et al.* (2007).

Data was retrieved from World Bank, OECD statistics, and Eurostat websites.

Table 3. Selected proxies for accounting values

Accounting practices	Explanations	Proxy variables
Professionalism (<i>Prof</i>): preference for the exercise of professional judgement and practitioners' self-regulation		
Expertise in preparation and audit of financial statements**	Financial statements credibility is verified by auditors. Objective and experienced auditors who report an authoritative opinion are an expression of the expertise of both auditors who audit financial statements and accountants who prepare them. Big Four auditors are leaders in the audit market due to their notoriety and quality of their services (Chen <i>et al.</i> , 2016). Thus, Big Four auditors and an unqualified audit opinion are associated with high professionalism.	AV1 Big4 auditors rate (Rate of Big Four audited financial statements in total audited financial statements of listed companies) AV2 Unqualified opinion rate (Rate unqualified audit opinions in total audit opinions of listed companies)
Conservatism (<i>Con</i>): preference for a cautious assessment of operating results and financial position of the firms		
Income and assets measurement*	Management policy of assets and income measurement defines the level of accounting conservatism (Sudarwan and Fogarty 1996; Noravesh <i>et al.</i> , 2007). A lower value of market to book ratio expresses conservative accounting figures, whereas low earnings per share in comparison to market returns reflect a prudential recognition of incomes.	AV3 Market to Book Ratio AV4 Earnings per Share to Market Returns Ratio
Secrecy (<i>Secr</i>): preference for confidentiality and restriction of financial disclosure		
Financial disclosure policy*	The extent of voluntary disclosure in financial statements reflects firms' level of transparency in financial reporting. Less information disclosed means higher secrecy, and vice versa.	AV5 Disclosure of Balance Sheet related items (Number of balance sheet related items supplementary disclosed in annual financial statements in the total number of supplemental balance sheet related items) AV6 Disclosure of Income Statement related items (Number of income statement related items supplementary disclosed in annual financial statements in the total number of supplemental income statement related items)
Uniformity (<i>Uni</i>): uniform and stable accounting policies		
Financial reports consistency and comparability *	Changes in measurement and accounting recognition policies provide inconsistent information over time. Moreover, variant policies across firms limit their comparability. A high number of method and standard changes, measured through a low rate of companies applying the same method or the same accounting standards express a lack of uniformity	AV7 Ratio of companies applying indirect cash-flow reporting method (Number of companies applying the indirect cash-flow method in the total number of listed companies) AV8 Ratio of companies applying IFRS (Number of companies applying IFRS in the total number of listed companies)

in financial reporting practices. The method selected as a proxy for uniformity is the cash-flow reporting method, due to the visibility of cash-flow statements for stakeholders, and its informational content. Secondly, the application of the same financial reporting standards (like IFRS) also results in uniformity enhancement.

* Refined from Sudarwan and Fogarty (1996) and Noravesh *et al.* (2007).

** As proposed by Sudarwan and Fogarty (1996) and Noravesh *et al.* (2007).

*** Data was retrieved from Thomson Reuters Eikon database.

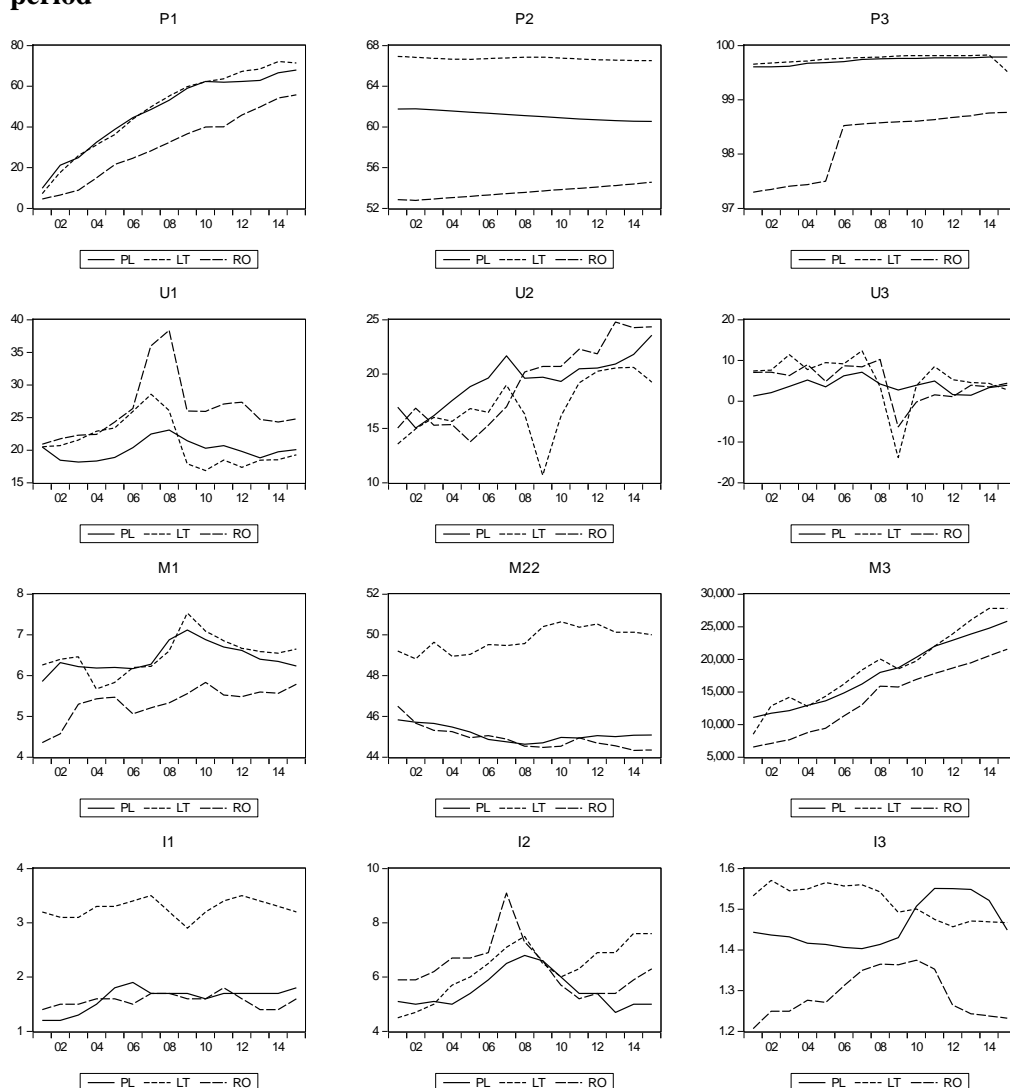
4. Results and discussions

As expected (Sudarwan and Fogarty, 1996; Olimid and Calu, 2006), data exploration indicates that both measurements of cultural dimensions and accounting values have a changing pattern over time. Figure 1 illustrates the evolution of socio-economic proxies for cultural dimensions during the analysed period. A significant increase of access to modern technology and high values of urbanization and literacy rate indicate that Eastern European societies have a decreasing power distance. Gross fixed investment rate, savings rate and GDP growth rate fluctuate over the time, and their evolution is marked by a shock during the 2007-2009 financial crisis. Overall, these measurements indicate a transformation of the attitude towards risk. The increasing trend of savings rate reflects a slight increase in the degree of uncertainty avoidance. Changing patterns of healthcare budget ratio and gender employment gap indicate an unclear transition from a more feminine to a more masculine society. Individual income trend confirms the orientation towards masculinity. Divorce rate, marriage rate and higher education rate significantly vary over time, indicating oscillations of individualist tendencies in Eastern European societies. In general, trends for individual countries seem close to each other, with slight differences that mark the hierarchy in orientation towards each cultural dimension.

Overall, country characteristics revealed by the graphical analysis of proxy variables for cultural dimensions are consistent with Hofstede's (1980) estimated scores. This proves the external validity of the selected proxies.

Figure 2 shows the evolution of proxies for accounting values during the analysed period 2000-2015. Big Four auditors' rate reflects that the level of professionalism is increasing especially taking into account that audit is a relatively new requirement in the region (Albu *et al.*, 2017). However, this evidence is not supported by unqualified audit opinion rate, which varies over time in Lithuania and Romania. Market to book ratio and earnings per share to market return ratio indicate a downward trend in conservatism, which means that countries are converting to a fair value measurement. The extent of disclosures related to both balance sheet and income statement items mainly enlarged, although with fluctuations, during the analysed period.

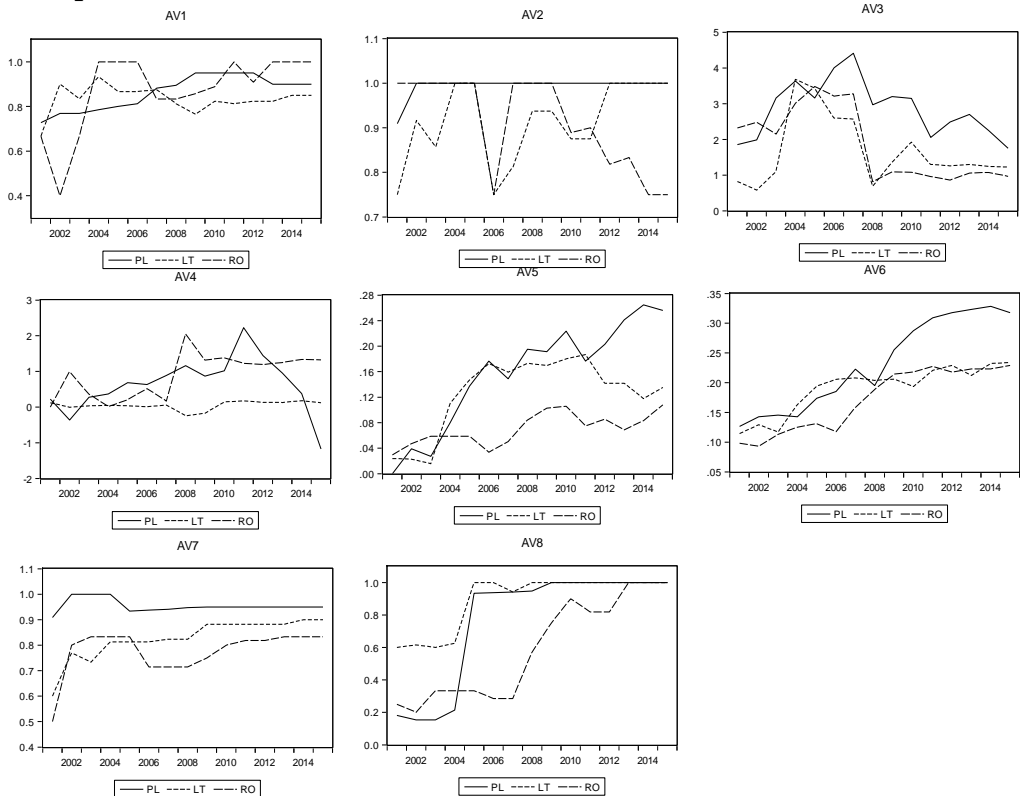
Figure 1. Evolution of selected proxies for cultural values during the 2000-2015 period



Note 1: **PL** stands for Poland, **LT** Lithuania and **RO** Romania.

Note 2: **P1** represents Internet usage ratio (% of total population), **P2** Urbanization rate (%), **P3** Literacy rate (%), **U1** Investment rate (% of GDP), **U2** Savings rate (% of GDP), **U3** GDP growth rate (%), **M1** Healthcare budget ratio (% of GDP), **M22** Gender employment, **M3** Individual income (PPP current international USD), **I1** Divorce rate (per 1000 persons), **I2** Marriage rate (per 1000 persons), **I3** Higher education rate (% of population over 15 years old).

Figure 2. Evolution of selected proxies for accounting values during the 2000-2015 period



Note 1: *PL* stands for Poland, *LT* for Lithuania and *RO* for Romania respectively.

Note 2: *AV1* represents Big4 auditors rate, *AV2* Unqualified opinion rate, *AV3* Market to Book Ratio, *AV4* Earnings per Share to Market Returns Ratio, *AV5* Disclosure of Balance Sheet related items, *AV6* Disclosure of Income Statement related items, *AV7* Ratio of companies applying indirect cash-flow reporting method, and *AV8* Ratio of companies applying IFRS.

This expresses an enhanced orientation towards transparency in financial reporting. In time, the preferred method of reporting cash flow became the indirect method, and the applying financial reporting standards became IFRS. This suggests an increasing trend in the uniformity of financial reporting practices across firms, and even among countries.

Various changes in accounting standards emerged during the analysed period. However, these changes, mainly determined by compliance with EU directives and IFRS, enhanced the degree of harmonization among accounting regulations from selected countries, favouring the uniformity and comparability in financial reporting.

Differences in enforcement and compliance with international financial reporting standards, which influence firms' practices, may be determined by the institutional environment and, in fact, country-level cultural factors. For instance, IFRS are principle-based standards that rely on a substance-over-form approach. Their implementation requires an outstanding professional judgement, influenced by accountants' and auditors' cultural values (Heidhues and Patel, 2011).

The key descriptive statistics of selected proxies are summarised in Table 4, presented per countries and for pooled sample. It can be seen that data distributions are uniform, with visibly higher standard deviations for Internet usage ratio, as a result of Internet access improvement over time. Group means difference test (F-Ratio) indicates if there is any statistically significant difference in mean values of the proxy variables among selected countries. Although mean values are close and comparable for Lithuania, Poland, and Romania, F-ratio results for most of the proxies show they are significantly different among groups. These findings support the assumption that national cultures are unique, but have regional similarities. From an economically related perspective, as indicated by savings rate, GDP growth rate, and healthcare budget ratio, selected countries share common characteristics. The accounting values reveal similar evidence. Only big four auditors' rate is not significantly different among countries. However, unqualified audit opinion rate illustrates slight differences in the level of accounting professionalism. Moreover, the degree of conservatism, secrecy and uniformity also permits to compare and group countries.

CFA and SEM analyses were estimated through the Maximum Likelihood (ML) method since our data have both ratio and scale variables with mixed distributions. Confirmatory Factor Analysis (CFA), also called the measurement model, shows the relations between latent variables and their observed factors. The results of CFA conclude that proxies used for power distance, individualism and masculinity cultural dimensions, and conservatism, secrecy, and uniformity accounting values have positive regression weights. In other words, the measurement model (CFA) shows that used proxies represent the cultural and accounting values, and we can run SEM to test our hypothesized relationships. The Structural Equation Model (SEM) defines the relations between latent or unobserved constructs, such as cultural dimensions and accounting values. Estimations of regression coefficients for both CFA and SEM analyses are presented in **Table 5**. For instance, a positive loading of 1.148 of uncertainty avoidance on professionalism indicates a positive relation between uncertainty avoidance and professionalism. Similarly, uncertainty avoidance (UA) and individualism (IND) have positive effects on professionalism, uniformity, conservatism, and secrecy. Masculinity (MvF) has positive weights for conservatism and secrecy.

Table 4. Descriptive statistics

Country	Lithuania			Poland			Romania			Overall (Total)				
	Variables	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	Mean	Median	S.D.	F-Ratio
Panel A: Proxies for cultural dimensions														
Power	<i>P1</i>	48.80	55.22	20.80	47.77	53.13	18.44	30.93	32.42	17.10	42.50	44.58	20.19	(4.25)*
Distance (<i>PD</i>)	<i>P2</i>	66.70	66.71	0.13	61.13	61.12	0.45	53.59	53.57	0.58	60.48	61.12	5.45	(3534.8)***
	<i>P3</i>	99.75	99.78	0.08	99.72	99.75	0.07	98.23	98.57	0.61	99.23	99.68	0.80	(88.89)***
	Uncertainty	<i>U1</i>	21.09	20.52	3.58	20.07	20.09	1.46	26.17	24.76	4.90	22.45	21.44	4.43
Avoidance (<i>UA</i>)	<i>U2</i>	17.02	16.46	2.80	19.46	19.63	2.28	19.18	20.19	3.85	18.55	19.17	3.18	(2.86)
	<i>U3</i>	5.62	7.41	6.12	3.68	3.63	1.71	4.65	4.82	4.34	4.65	4.43	4.42	(0.71)
Masculinity (<i>MVF</i>)	<i>M1</i>	6.51	6.55	0.46	6.43	6.32	0.34	5.34	5.47	0.41	6.09	6.22	0.67	(38.68)
	<i>M22</i>	49.76	49.64	0.60	45.13	45.05	0.37	44.93	44.88	0.58	46.61	45.25	2.31	(402.7)***
	<i>M3</i>	18869	18500	5846	17938	17990	5123	14024	15760	5213	16943	16920	5690	(3.39)*
Individualism (<i>IND</i>)	<i>I1</i>	3.27	3.30	0.16	1.61	1.70	0.22	1.57	1.60	0.12	2.15	1.70	0.82	(482.6)***
	<i>I2</i>	6.32	6.50	1.01	5.53	5.40	0.67	6.35	6.20	0.97	6.06	6.00	0.96	(4.04)*
	<i>I3</i>	1.52	1.53	0.04	1.46	1.44	0.06	1.29	1.27	0.06	1.42	1.44	0.11	(76.26)***

Panel B: Proxies for accounting values

Professionalism (<i>Prof</i>)	<i>AV1</i>	0.83	0.83	0.06	0.86	0.89	0.08	0.87	0.91	0.17	0.86	0.87	0.11	(0.424)
	<i>AV2</i>	0.91	0.94	0.09	0.99	1.00	0.02	0.91	1.00	0.11	0.94	1.00	0.09	(4.869)**
	<i>AV3</i>	1.67	1.30	0.96	2.85	2.97	0.80	1.85	1.09	1.02	2.12	2.06	1.05	(6.95)***
Conservatism (<i>Conv</i>)	<i>AV4</i>	0.05	0.05	0.12	0.64	0.68	0.78	0.89	1.19	0.63	0.53	0.28	0.67	(8.23)***
	Secrecy (<i>Secr</i>)	<i>AV5</i>	0.13	0.14	0.06	0.16	0.18	0.08	0.07	0.07	0.02	0.12	0.11	0.07
Uniformity (<i>Uni</i>)	<i>AV6</i>	0.19	0.21	0.04	0.23	0.22	0.08	0.17	0.19	0.05	0.20	0.21	0.06	(4.01)*
	<i>AV7</i>	0.83	0.82	0.08	0.95	0.95	0.03	0.78	0.82	0.09	0.85	0.83	0.10	(25.29)***
	<i>AV8</i>	0.89	1.00	0.18	0.76	0.95	0.37	0.59	0.57	0.31	0.75	0.94	0.32	(3.84)*
	N	15	15	15	15	15	15	15	15	15	45	45	45	

Note: *P1* represents Internet usage ratio (% of total population), *P2* Urbanization rate (%), *P3* Literacy rate (%), *U1* Investment rate (% of GDP), *U2* Savings rate (% of GDP), *U3* GDP growth rate (%), *M1* Healthcare budget ratio (% of GDP), *M22* Gender employment, *M3* Individual income (PPP current international USD), *I1* Divorce rate (per 1000 persons), *I2* Marriage rate (per 1000 persons), *I3* Higher education rate (% of population over 15 years old), *AV1* represents Big4 auditors rate, *AV2* Unqualified opinion rate, *AV3* Market to Book Ratio, *AV4* Earnings per Share to Market Returns Ratio, *AV5* Disclosure of Balance Sheet related items, *AV6* Disclosure of Income Statement related items, *AV7* Ratio of companies applying indirect cash-flow reporting method, and *AV8* Ratio of companies applying IFRS. ***, **, and * indicates significance level at 0.001, 0.05, and 0.01, respectively

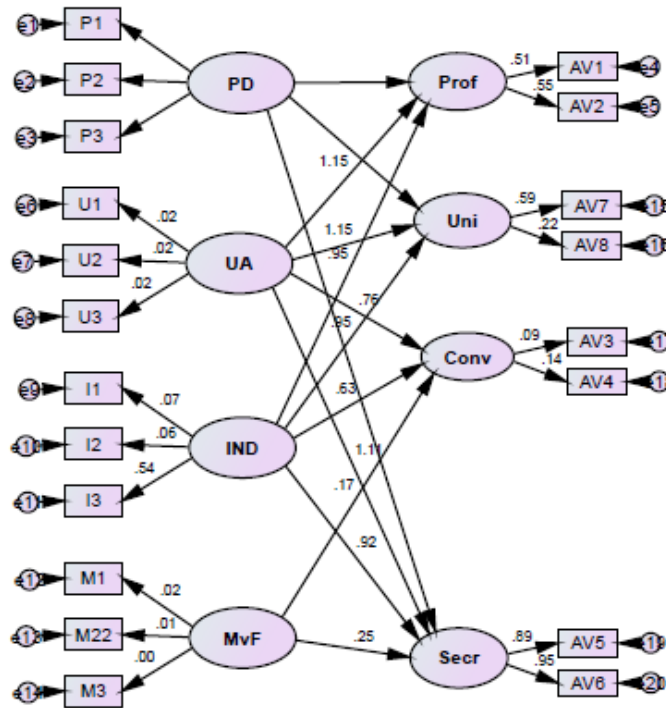
Table 5. Estimations of SEM and CFA coefficients

			SEM (β)			CFA (β)	
<i>Prof</i>	<---	<i>UA</i>	1.148	<i>P1</i>	<---	<i>PD</i>	0.105
<i>Uni</i>	<---	<i>UA</i>	1.148	<i>P2</i>	<---	<i>PD</i>	0.337
<i>Conv</i>	<---	<i>UA</i>	0.758	<i>P3</i>	<---	<i>PD</i>	2.52
<i>Secr</i>	<---	<i>UA</i>	1.112	<i>U1</i>	<---	<i>UA</i>	0.29
<i>Prof</i>	<---	<i>IND</i>	0.953	<i>U2</i>	<---	<i>UA</i>	0.391
<i>Uni</i>	<---	<i>IND</i>	0.953	<i>U3</i>	<---	<i>UA</i>	0.285
<i>Conv</i>	<---	<i>IND</i>	0.63	<i>I1</i>	<---	<i>IND</i>	0.226
<i>Secr</i>	<---	<i>IND</i>	0.923	<i>I2</i>	<---	<i>IND</i>	0.155
<i>Conv</i>	<---	<i>MvF</i>	0.169	<i>I3</i>	<---	<i>IND</i>	1.53
<i>Secr</i>	<---	<i>MvF</i>	0.248	<i>M1</i>	<---	<i>MvF</i>	1.234
<i>AV1</i>	<---	<i>Prof</i>	0.511	<i>M22</i>	<---	<i>MvF</i>	0.357
<i>AV2</i>	<---	<i>Prof</i>	0.549	<i>M3</i>	<---	<i>MvF</i>	0
<i>U1</i>	<---	<i>UA</i>	0.016	<i>AV7</i>	<---	<i>Uni</i>	0.931
<i>U2</i>	<---	<i>UA</i>	0.023	<i>AV8</i>	<---	<i>Uni</i>	0.304
<i>U3</i>	<---	<i>UA</i>	0.016	<i>AV5</i>	<---	<i>Secr</i>	0.866
<i>I1</i>	<---	<i>IND</i>	0.072	<i>AV6</i>	<---	<i>Secr</i>	0.964
<i>I2</i>	<---	<i>IND</i>	0.061				
<i>I3</i>	<---	<i>IND</i>	0.537				
<i>M1</i>	<---	<i>MvF</i>	0.023				
<i>M22</i>	<---	<i>MvF</i>	0.007				
<i>M3</i>	<---	<i>MvF</i>	0				
<i>AV7</i>	<---	<i>Uni</i>	0.588				
<i>AV8</i>	<---	<i>Uni</i>	0.216				
<i>AV3</i>	<---	<i>Conv</i>	0.087				
<i>AV4</i>	<---	<i>Conv</i>	0.141				
<i>AV5</i>	<---	<i>Secr</i>	0.892				
<i>AV6</i>	<---	<i>Secr</i>	0.946				

Note: *P1* represents Internet usage ratio (% of total population), *P2* Urbanization rate (%), *P3* Literacy rate (%), *U1* Investment rate (% of GDP), *U2* Savings rate (% of GDP), *U3* GDP growth rate (%), *M1* Healthcare budget ratio (% of GDP), *M22* Gender employment, *M3* Individual income (PPP current international USD), *I1* Divorce rate (per 1000 persons), *I2* Marriage rate (per 1000 persons), *I3* Higher education rate (% of population over 15 years old), *AV1* represents Big4 auditors rate, *AV2* Unqualified opinion rate, *AV3* Market to Book Ratio, *AV4* Earnings per Share to Market Returns Ratio, *AV5* Disclosure of Balance Sheet related items, *AV6* Disclosure of Income Statement related items, *AV7* Ratio of companies applying indirect cash-flow reporting method, *AV8* Ratio of companies applying IFRS, *PD* Power distance, *UA* uncertainty avoidance, *IND* individualism, *MvF* Masculinity, *Prof* Professionalism, *Secr* Secrecy, *Conv* Conservatism, and *Uni* Uniformity.

The graphical representation of SEM estimations for testing Gray's hypotheses for Eastern European countries is illustrated by Figure 3. The estimates were conducted in IBM SPSS and AMOS statistical software.

Figure 3. SEM results



Note: *P1* represents Internet usage ratio (% of total population), *P2* Urbanization rate (%), *P3* Literacy rate (%), *U1* Investment rate (% of GDP), *U2* Savings rate (% of GDP), *U3* GDP growth rate (%), *M1* Healthcare budget ratio (% of GDP), *M22* Gender employment, *M3* Individual income (PPP current international USD), *I1* Divorce rate (per 1000 persons), *I2* Marriage rate (per 1000 persons), *I3* Higher education rate (% of population over 15 years old), *AV1* represents Big4 auditors rate, *AV2* Unqualified opinion rate, *AV3* Market to Book Ratio, *AV4* Earnings per Share to Market Returns Ratio, *AV5* Disclosure of Balance Sheet related items, *AV6* Disclosure of Income Statement related items, *AV7* Ratio of companies applying indirect cash-flow reporting method, *AV8* Ratio of companies applying IFRS, *PD* Power distance, *UA* uncertainty avoidance, *IND* individualism, *MvF* Masculinity, *Prof* Professionalism, *Secr* Secrecy, *Conv* Conservatism, and *Uni* Uniformity.

Model fit tests are indicated in **Table 6** Value of Goodness of fit index (GFI) and adjusted GFI show that both our models, i.e. CFA and SEM are well fitted. However, root means squares (RMSEA) and standardized RMR values are not up to benchmark standards and limit the interpretation of our findings. The main reason behind this is the limited number of observations because of data availability (limitation of study), since the tested theoretical approach refers to country-level hypotheses.

Table 6. Goodness-of-fit statistics

Statistic	CFA	SEM
Chi-Square values (CMIN)	1329.701	1383.900
Chi-Square values / Degree of freedom (CMIN/DF)	7.306	7.440
Goodness of fit index (GFI)	0.301	0.282
Adjusted goodness of fit index (AGFI)	0.193	0.189
Confirmatory fit index (CFI)	0.107	0.068
Root means squares (RMESA)	0.379	0.383
Standardized root mean square residual (Standardized RMR)	0.365	0.364

The summary of the SEM results compared with Gray's hypotheses are presented in Table 7. In line with Gray's hypotheses, SEM results show that, in Eastern European countries: individualism is positively linked with professionalism; uncertainty avoidance has positive weights on accounting uniformity, conservatism and secrecy; and masculinity has no influence on professionalism and uniformity. However, contradictory to Sidney J Gray (1988): individualism has a positive influence on accounting uniformity, conservatism and secrecy; masculinity also has a positive influence on conservatism and secrecy; uncertainty avoidance has a positive weight on professionalism; and power distance has no relationship with professionalism, uniformity and secrecy. Thus, out of the thirteen hypotheses proposed by Sidney J Gray (1988), the current study found consistent evidence for four hypotheses, contradictory for six, and no evidence for three. The case of non-determination may be explained by the strength of contextual factors in the EEC setting. These findings are in line with some of the previous studies which found varied evidence consistent with or against Gray's theory (Gray *et al.*, 1995; Sudarwan and Fogarty 1996; Jaggi and Low, 2000; Noravesh *et al.*, 2007).

Table 7. Comparison of Gray's hypotheses with SEM results

Hofstede's Dimensions	Cultural	Gray's Accounting Values							
		Professionalism (<i>Prof</i>)		Uniformity (<i>Uni</i>)		Conservatism (<i>Conv</i>)		Secrecy (<i>Secr</i>)	
		<i>H1</i>	SEM	<i>H2</i>	SEM	<i>H3</i>	SEM	<i>H4</i>	SEM
Power distance (<i>PD</i>)		Negative	----	Positive	----	----	----	Positive	----
Individualism (<i>IND</i>)		Positive	0.953	Negative	0.953	Negative	0.63	Negative	0.923
Masculinity (<i>MvF</i>)		----	----	----	----	Negative	0.169	Negative	0.248
Uncertainty Avoidance (<i>UA</i>)		Negative	1.148	Positive	1.148	Positive	0.758	Positive	1.112

H1, **H2**, **H3** and **H4** represent Gray's hypotheses, indicating theoretically defined relationships, whereas SEM represents the results of structural equations modelling analysis for these relationships.

Our findings suggest that financial reporting practices in Eastern European countries are mainly influenced by the attitude towards risk, the societies' extent of

independence and individualism, and the orientation towards feminine or masculine life quality. The cultural tendency of uncertainty avoidance supports the conservatory evaluation of accounting assets and incomes, enhancing the uniformity of applied reporting methods, limited disclosure, and accounting professionalism. Thus, financial reporting practices in the region seem defensive, and in strict compliance with regulations. Although the degree of equality and hierarchical order do not influence accounting practices, the extent of individualism enhances the expression of professional judgement, and supports tendencies of uniformity, conservatism, and secrecy in financial reporting. This can be explained by accounting professionals' sense of responsibility and flexibility in taking decisions. The Masculinity dimension also influences the tendency towards prudence and secrecy, motivated by profit maximization reasoning.

In the end, these findings indicate that accounting differences persist beyond the applicable reporting standards (Gray *et al.*, 2015), and that these differences are partially determined by cultural factors. This suggests that standard-setters, policy-makers, stakeholders, managers, and accounting professionals should be aware of these intrinsic influences, which uniquely define financial reporting practices per regions and countries, and threat international harmonization of practical implementation of accounting principles.

Conclusions

By following Gray's well known theory (1988), this study empirically investigated the role of cultural factors in shaping accounting practices. Cultural dimensions and accounting values were estimated through various proxy variables that allow the measurement of these theoretically defined concepts. This research concentrates on Eastern-European countries during the 2000-2015 period, and covers patterns of accounting practices, both pre-IFRS and post-IFRS adoption. Our findings suggest that cultural dimensions vary over time. Their evolution influence financial reporting practices, and, implicitly, country-level accounting values. The results of the confirmatory factor analysis and structural equation modelling partially support Gray's framework. The effects of uncertainty avoidance and individualism characteristics enhance accounting tendencies of professionalism, uniformity, conservatism, and secrecy. Moreover, cultural masculinity orientation determines conservative and limited financial reporting.

Providing insightful evidence about cultural influence on accounting and financial reporting practices in Lithuania, Poland, and Romania, this research has a limited inferential power. Further studies may strengthen the validity of the proposed proxies for cultural and accounting values, and may explore the influence of interdependencies among cultural, political, legal or socio-economic factors on accounting practices. Besides that, a critical assessment of empirical studies driven by Gray's theory may clarify which of the relationships between cultural and

accounting dimensions are broadly verified, and which only indicate regional influences.

Acknowledgments: Authors thank reviewers and participants in the Accounting and Management Information Systems international conference, 12th edition held in June 2017, at the Bucharest University of Economic Studies, for their valuable suggestions and comments to an earlier version of this study.

References

- Akman, N. H. (2011), The Effect of on Financial Disclosure: Does Culture Still Play, *American International Journal of Contemporary Research*, 1(1), pp. 6-17.
- Albu N., Albu C. N. and Filip A. (2017), Corporate Reporting in Central and Eastern Europe: Issues, Challenges and Research Opportunities, *Accounting in Europe*, 14(3), 249-260.
- Albu, N., and Albu, C. N. (2012), International Financial Reporting Standards in an Emerging Economy: Lessons from Romania, *Australian Accounting Review*, 22(4), pp. 341-352.
- Berg, P. T., and Van, d. (2015), Comparing the Cultures of Romania and The Netherlands: When East Meets West, *Psihologia Resurselor Umane*, 8(2), pp. 30-41.
- Brancu, L., Svala, G., Gligor, D. and Munteanu, V. (2015), Is Culture a Moderator of Entrepreneurship Motivation? Study of Romania and Iceland, *Amfiteatru Economic*, 17(38), pp. 133-147.
- Braun, G. P., and Rodriguez, R. P. (1988), Using Gray's Accounting Values to Explain Differing Levels of Implementation of IFRS, *International Journal of Accounting and Financial Reporting*, 4(2), pp. 104-136.
- Chanchani, S., and MacGregor, A. (1999), A synthesis of cultural studies in accounting, *Journal of Accounting Literature*, 18, pp. 1-30.
- Chanchani, S., and Willett, R. (2004), An empirical assessment of Gray's accounting value constructs, *The International Journal of Accounting*, 39, pp. 125-154.
- Choi, F. D. and Meek, G. K. (2011), *International accounting*: Pearson Higher Ed.
- Cieslewicz, J. K. (2014), Relationships between national economic culture, institutions, and accounting: Implications for IFRS, *Critical Perspectives on Accounting*, 25(6), pp. 511-528.
- Doupnik, T. S., and Tsakumis, G. T. (2004), A critical review of tests of Gray's theory of cultural relevance and suggestions for future research, *Journal of Accounting Literature*, 23(1).
- Doupnik, T. S., Tsakumis, G. T., A., and Eddie, I. A. (1990), Review of Tests of Gray's Theory of Cultural Relevance and Suggestions for Future Research, *Journal of Accounting Literature*, 16(22-30), pp. 1-48.

- Grabinski, K., Kedzior, M. and Krasodomska, J. (2014), The Polish accounting system and IFRS implementation process in the view of empirical research, *Accounting and Management Information Systems*, 13(2), pp. 281-310.
- Gray, S. J. (1988), Towards a theory of cultural influence on the development of accounting systems internationally, *Abacus*, 24(1), pp. 1-15.
- Gray, S. J., Kang, T., Lin, Z., Tang, Q. and Post, I. (2015), Earnings Management in Europe Do Cultural Influences Persist?, *Management International Review*, 55(6), pp. 827-856.
- Heidhues, E. and Patel, C. (2011), A critique of Gray's framework on accounting values using Germany as a case study, *Critical Perspectives on Accounting*, 22(3), 273-287.
- Hodgdon, C., Tondkar, R. H., Harless, D. W. and Adhikari, A. (2008), Compliance with IFRS disclosure requirements and individual analysts forecast errors, *Journal of International Accounting, Auditing and Taxation*, 17(1), 1-13.
- Hofstede, G. (1980), Culture and organizations, *International Studies of Management & Organization*, 10(4), pp. 15-41.
- Ionașcu, M., Ionașcu, I., Săcărin, M. and Minu, M. (2014), IFRS adoption in developing countries: the case of Romania, *Accounting and Management Information Systems*, 13(2), pp. 311-350.
- Istrate, C. (2016), *Contabilitate si raportări financiare individuale și consolidate*, Iași: Polirom.
- Jaggi, B. and Low, P. Y. (2000). Impact of culture, market forces, and legal system on financial disclosures, *The International Journal of Accounting*, 35(4), pp. 495-519.
- Karaibrahimoglu, Y., and Cangarli, B. (2016), Zengin Guneri Do Auditing and Reporting Standards Affect Firms' Ethical Behaviours? The Moderating Role of National Culture, *Journal of Business Ethics*, 139(1), pp. 55-75.
- Lakis, V., Kazlauskienė, L., McGee, R. W. and Boston, M. A. (2008), Accounting Reform in Lithuania. In eds *Accounting Reform in Transition and Developing Economies New York: Springer*, pp. 115-130.
- Lamjav, N., and Boston, M. A. (2008), Accounting Systems and Structures in Poland, in: McGeeRW (eds.), *Accounting Reform in Transition and Developing Economies*, Springer, pp. 131-138.
- Landsman, W. R., Maydew, E. L. and Thornock, J. R. (2012), The information content of annual earnings announcements and mandatory adoption of IFRS, *Journal of Accounting and Economics*, 53(1-2), pp. 34-54.
- Legenzova, R. (2012). Are IFRS requirements applied in practice in Lithuania: case of pension related payments, *Science and Studies of Accounting and Finance: Problems and Perspectives*, 8(1), pp. 110-115.
- Leuz, C. and Wysocki, P. D. (2016), The Economics of Disclosure and Financial Reporting Regulation: Evidence and Suggestions for Future Research. *Journal of accounting research*, 54(2), pp. 525-622.

- Mironiuc, M., Carp, M. and Chersan, I. C. (2015), The relevance of financial reporting on the performance of quoted Romanian companies in the context of adopting the IFRS, *Procedia Economics and Finance*, 20, pp. 404-413.
- Nobes, C. (2013), The continued survival of international differences under IFRS., *Accounting and business research*, 43(2), pp. 83-111.
- Nobes, C., & Parker, R. (2010), *Muthen & Muthen Comparative International Accounting*, 11th Edition, Essex: Financial Times Prentice Hall.
- Noravesh, I., Dilami, Z. D. and Bazaz, M. S. (2007), The impact of culture on accounting: does Gray's model apply to Iran?, *Review of Accounting and Finance*, 6(3), pp. 254-272.
- Olimid, L. and Calu, D. A. (2006), *An empirical study of the accounting values shared by Romanian accountants aiming to become private practitioners* (retrieved from <http://dx.doi.org/10.2139/ssrn>).
- Richardson, G. (2007), The influence of culture on tax systems internationally: A theoretical and empirical analysis, *Journal of International Accounting Research*, 6(1), pp. 57-79.
- Sudarwan, M., and Fogarty, T. J. (1996), Culture and accounting in Indonesia: an empirical examination, *The International Journal of Accounting*, 31(4), pp. 463-481.
- Willett, R.J., Baydoun, N. and Nishimura, A. (1997), Reflections on the Relationship between Culture and Accounting Practices in the Asia-Pacific Region, in: Baydoun, N., Nishimura, A., Willett, R. (eds.), *Accounting the Asia-Pacific Region*, Singapore: John Wiley & Sons, pp. 400-426.
- Zimmermann, J., and Werner, J. R. (2013). *Regulating Capitalism? The Evolution of Transnational Accounting Governance*, Hampshire: Palgrave Macmillan.
- Zverovich, S., Mackevicius, J. and Kazlauskienė, L. (2011), Financial reporting in Lithuania, in: Strouhal, J. (eds), *Harmonization of SMEs Financial Reporting in Emerging CEE Countries*, WSEAS Press, pp. 138-168.