THE EFFECTS OF CULTURAL DIMENSIONS ON THE INTERNAL AUDIT FUNCTION – A WORLDWIDE COMPARISON OF INTERNAL AUDIT CHARACTERISTICS

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Abstract

This study seeks to analyze if the national culture has an effect on different characteristics of the internal audit function (IAF). Using an international sample of companies from different industries together with the five cultural dimensions of Hofstede (2001) as proxies for national culture, this study analyzes how cultural differences across countries affect the structure and work of the internal audit function (IAF). In doing so, we estimate linear, logistic and ordered logistic regressions to test the effects of the different country-level cultural variables on our dependent IAF variables. While our research focus is unique, a recent paper by Bik and Hooghiemstra (2017), which has a different purpose and examines the effect of national culture on auditor-in-charge involvement, uses a similar regression approach. The results show a positive association between the different cultural dimensions, e.g. long-term orientation and uncertainty avoidance, and an objective and independent IAF. In contrast, other dimensions do not seem to be supportive for an objective and independent IAF. This exploratory study contributes to the literature in at least two ways. First, a new research approach and dimension of IAF research is used. Second, the findings indicate that different cultural dimensions have significant effects on specific IAF characteristics. The findings can help internal audit practitioners and their stakeholders to double-check if specific dimensions of national culture have an impact on IAFs' characteristics. This study uses a unique research focus and an international dataset to examine the influence of national culture on IAF in multiple dimensions. All five Hofstede's cultural dimensions are used to obtain a holistic of view on the effects of national and they are linked to relevant proxies which describe the culture and work of the IAF. Our results should open new research streams on internationalization and effects of culture on the IAF.

Keywords: Internal Audit Function, National Culture, Hofstede

1. INTRODUCTION

Over the last decades, the internationalization of companies has become the common way to extend business activities, explore new markets or use cost arbitrage effects. Although the motivation to internationalize depends on the specific environment and attributes of a company, the decision to extend the own business has a long-term and strategic dimension. New markets offer new opportunities but also numerous unknown threats. Furthermore, the distance between the headquarter and the foreign subsidiaries complicates the monitoring and control of the worldwide activities of a company. Bartlett and Goshal (1992) summarize this situation as follows: "The very act of "going international" multiplies a

company's organizational complexity. The difficulty is further increased because the resolution of tensions among the different management groups must be accomplished in an organization whose operating units are often divided by distance and time and whose key members are separated by barriers of culture and language".

Transferring these factors to the governance framework of companies, the national culture seems to affect not only the understanding of an organization directly but also the need for an effective corporate governance framework. Corporate governance mechanisms that satisfy the specific needs of one country, may not be that successful in another country because the culture-specific need is different or does not exist. Focusing on the internal audit function (IAF), numerous studies identify factors which influence the organization and work of an IAF. Prior research shows several factors such as company's size, industry, multinationality, listing or ownership structure that affect IAFs' characteristics (Wallace & Kreutzfeldt, 1991; Anderson et al., 2012). Beside these "hard facts", cultural variables also influence the understanding and work of an IAF. These cultural or "soft facts" are often directly linked to the history of the company or the leadership approach of a specific CEO. However, the country-specific culture also shapes the IAF.

The awareness of the social and cultural influences on accounting and auditing increased over the last years (Gray, 1988; Beresford, 1990; Geiger et al., 2006; Geiger & van der Laan Smith, 2010). Prior research on cultural influences on accounting and auditing focuses on topics like accounting conservatism (Schultz Jr. & Lopez, 2001; Doupnik & Riccio, 2006; Kanagaretnam et al., 2014); accounting systems (Gray, 1988; Doupnik & Salter, 1995; Nobes, 1983); accounting systems and values (Gray, 1988; Salter & Niswander, 1995; Radebaugh & Gray, 1997); earnings management (Nabar & Boonlert-U-Thai, 2007; Han et al., 2010); external auditor choice (Hope et al., 2008; Abdolmohammadi, 2012); auditor-in-charge involvement (Bik & Hooghiemstra, 2017); or, seen from the internal audit perspective, on internal audit quality (Alzeban, 2015) or standards (Abdolmohammadi & Sarens, 2011). However, thus far a usable framework that explains the potential influence of the cultural dimensions on the structure and the work of an IAF is missing. This lack of prior literature or established theory directly linking culture to the IAF goes along with the request by DeFond and Zhang (2014) that more IAF research is needed because "...research on the internal audit function is still in its infancy".

Thus, the objective of our paper is to investigate the association between cultural dimensions in various countries and the structure and work of the IAF. Therefore, we focus on the structure and processes of IAFs, whereby the structure and processes are two important aspects of an effective and efficient IAF (Arena & Azzone, 2007; Burton et al., 2012; Carcello & Neal, 2000). Our approach relies on the theoretical framework provided by Hofstede (1991, 2001) who unbundles national culture in five different dimensions: power distance (PDI), individualism (IND), masculinity (MAS), uncertainty avoidance (UAI) and long-term orientation (LTO). Following the growing literature that shows the value of internal auditing in different areas (e.g. corporate governance (Gramling et al., 2004; Lenz et al., 2014; Trotman & Trotman, 2015); external audit efficiency (Felix Jr. et al., 2001; Pizzini et al., 2011; Abbott et al., 2012, 2013) or financial reporting (Prawitt et al., 2009, 2012; Abbott et al., 2013), we obtain first insights into the cultural dimension of IAFs' structure and work.

We use a unique research focus and a multinational dataset that examine the influence of national culture on IAFs from multiple dimensions. We cover all five of Hofstede's cultural dimensions to obtain a holistic view on the effects of national culture and directly link them to relevant proxies which describe the structure and work of the IAF. Our dataset is based on the so-called "Common body of knowledge"- study from the IIA. Our participants are Chief Audit Executives (CAE) (3,282 responses) from a broad industry, size and country range.

Our results indicate a positive association between the two cultural dimensions, LTO and UAI, and an objective and independent IAF. In contrast, individualism does not seem to be conducive for an objective and independent IAF. We contribute to the existing literature with our exploratory study in several ways. First of all, we use a completely new research approach and dimension of IAF research. Second, our study shows that different cultural dimensions have significant effects on specific IAF characteristics. With the operationalization of IIA's ten Core Principles, we try to find a comprehensible way to measure typical factors of an effectively working IAF and its structure. Our results should open new research streams on the internationalization and effects of culture on the IAF.

The remainder of this paper is organized as follows. After a brief literature review to understand the position of an IAF and the concept of Hofstede's five dimensions of national culture in section two, section three presents the methodology and sample. Section four represents and discusses our results, while section five ends with our conclusion, limitation and potential future research avenues.

2. HOFSTEDE'S FIVE DIMENSIONS OF NATIONAL CULTURE AND THE INTERNAL AUDIT FUNCTION

The IAF plays a number of key roles in several areas of activity in large companies, such as financial and operational audits, managerial audits, audits of compliance activities, involvement in risk management or the support for the external auditor (Ege, 2015; Abbott et al., 2012; Gramling et al., 2004). In some companies, internal audit also provides feedback and recommendations on operational efficiency, focusing not just on whether a given process achieves its objective but also on how cost-effectively it does so. Listed companies might see the focus of an IAF more on internal control aspects because of regulatory acts such as Sarbanes Oxley. Overall, the focus of an IAF depends on both company-specific characteristics and the country of origin. For instance, the IAF's emphasis in European companies is often different from the emphasis in North American companies, with the former more likely to prioritize operational issues and compliance activity. Regardless of specific characteristics, the main attributes of an IAF should be the same worldwide: objectivity and independence. Both

attributes empower the IAF to be an appropriate partner of the audit committee and the managing directors and they contribute to the proper functioning of all governance processes.

However, referring to the discussion above, it is likely that besides the influence of given company characteristics (e.g. size, industry, listing, maturity) on the structure and work of the IAF, the national culture influences the IAF as well. Therefore, we formulate our overall research question as follows:

RQ_1: Do the cultural dimensions of Hofstede affect the structure and work of an IAF?

Assuming that the behaviour and values of all employees are affected by the national culture, this effect should also be true for the IAF as management's assurance and consulting function. To understand the phenomena of national culture, it is important to understand the relevant research streams. National culture is the collective programming of the mind that distinguishes members of one human group from another (Hofstede, 1980, 2001). The most widely used cultural dimensions are those suggested by Hofstede (Hofstede, 1980; Hofstede & Bond, 1988; Hofstede, 2001) whose national culture framework is generally accepted as the most comprehensive in relevant studies of national culture (Chandy & Williams, 1994). Although culture is often discussed with the help of language, rituals, childhood, etc., values are the central argument of the cultural concept (Wong & Birnbaum-More, 1992). The validity, reliability, stability and value of Hofstede's cultural framework was confirmed by various studies (Tsui et al., 2007). Although Hofstede's dimensions are used in numerous studies, there has been a call for alternative concepts and measures of culture. See for more details (Wong-On-Wing & Lui, 2013; Baskerville, 2003; Myers & Tan, 2002). Based on a country-level factor analysis. Hofstede (1980) initially grouped forty countries along four dimensions. These were power distance; individualism vs. collectivism; uncertainty avoidance; and masculinity vs. femininity. Hofstede and Bond (1988) subsequently developed a fifth dimension, that of "Confucian dynamism" or long-term vs. short-term orientation. "Culture is composed of certain values, which shape behaviour as well as one's perception of the world" (Hofstede & Bond, 1988, p. 6). The five-dimensional framework has been widely used because of its clarity, parsimony, and resonance for managers (Kirkman et al., 2006). All of these cultural factors have served in numerous other cross-cultural studies in different contexts, while none of the prior studies examined the relation to internal auditing in general. We rely on the theoretical framework by (Hofstede, 1991, 2001) and unbundle the national culture into different dimensions, which allows us to specify hypothetical associations between the cultural dimensions and our variables of interest (Chan et al., 2003; Harrison & McKinnon, 1999).

To the best of our knowledge, our approach is the first that combines national culture and structure and work of an IAF and thus is exploratory. Utilizing all five dimensions that characterize the culture of different countries, we briefly discuss in the following for each one the possible relationship between culture and IAF's structure and work.

2.1. Power distance (PDI)

PDI is the extent to which members of a society/culture expect and accept an unbalanced distribution of power (Hofstede, 2001). Therewith, the higher the PDI the greater the acceptance of an unbalanced distribution of power in a company. Possible examples for a higher degree of PDI are:

- Fear of employees to tell the supervisor their own, but different opinion.
- Acceptance and request of an employee that the supervisor decides autocratic/patriarchic.
- Employees accept an autocratic structure of an organization with clear rules and guidelines.

These characteristics have numerous important implications for the structure and work of an IAF. In countries with a high PDI, the IAF acts as an agent of the "more powerful" management (Hofstede, 2001, p. 383). Because management integrity is expected to be comparatively higher than in low PDI environments, the supervision of the IAF lays in the hand of a direct supervisor (Wong & Birnbaum-More, 1992), while clearly defined guidelines minimize the opportunities for creative work and define a stable working environment. In companies with a high PDI, all internal auditors accept a clear separation between the centralized power of management and the position of the IAF. Employees (internal auditors) accept their position as a lifetime career and do not have to develop themselves into future management positions.

2.2. Uncertainty avoidance (UAI)

UAI is the extent to which members of a society/culture are scared by an uncertain or ambiguous situation. Hofstede describes people with a culture of weak UAI as follows: "They will be relatively tolerant of behaviour and opinions different from their own because they do not feel threatened by them" (Hofstede, 1983, p. 81). Possible examples for a higher degree of UAI are:

- A preference for formal rules and guidelines.
- The clear focus of employees on the rules and guidelines of a company.
- The intention of an employee to work for a long period of time in the same function.

Uncertainty plays a critical role in today's business (Kanagaretnam et al., 2014; Bik & Hooghiemstra, 2017) and determines the work of an IAF in numerous areas (Lenz et al., 2014; Lenz & Hahn, 2015). One can argue that the IAF is a function to reduce risk which is often based on uncertainty. Countries with a culture of lower UAI accept uncertainty and risk to a larger extent, in the same vain individuals or companies in these cultures take more risks than in high UAI cultures. On the other hand, a stable environment with clear guidelines and rules supports cultures with a high UAI. Although UAI and risk avoidance are not identical, Kwok and Tadesse (2006) show that cultures with a low UAI are often risk-averse as well.

2.3. Individualism (IDV)

The third dimension covers the spectrum between individualism and its opposite, collectivism. An

individualistic society/culture can be characterized with a clear focus on the individuals and family, while collectivist societies/cultures focus on a strong sense of unity which favours a lifelong secure position and unconditional loyalty. Following "Members of an individualist culture are expected to act according to their own interest and they champion individual achievements" (Chan et al., 2003, p. 284). Possible examples of a higher individualistic or collectivist culture are:

- Challenging work that leads to personal success is preferred (individualistic).
- Personal success is prior to group success (individualistic).
- Personal success is based on group success (collectivist).
- The relationship between employee and employer is based on economic profit (collectivist).

From an IAF perspective, the individualism dimension relates to the personal motivation of an internal auditor and the relationship to the auditee or other functions. This behavioural view is important to understand the "hidden agenda" of internal auditors or possible effects on the fundamental characteristics of the IAF, independence and objectivity. An individualistic internal auditor might have a lower loyalty to the company and see his/her own benefit as more crucial than independence and objectivity. Therefore, this type of internal auditors will not perfectly follow e.g. the IIA standards on independence and objectivity. The focus of individualistic organizations is to maximize their own bonus (Chan et al., 2003; Hofstede, 2001). In collectivist organizations, internal auditors want to have a safe working environment resulting in a long-term employment.

2.4. Masculinity (MAS)

The fourth dimension differentiates between masculine and feminine societies/cultures, whereby a masculine culture distinguishes between strong and weak groups. The masculine culture is based on hard facts, like money or reputation, while a feminine culture is based on soft facts, like humility and non-material values. Possible examples of a masculine or feminine culture are (Hofstede, 1997, p. 112):

- Opportunity to earn a high amount of money and receive an acknowledgment (masculine).
- Opportunity to be promoted to a higher position (masculine).
- A good relationship to direct supervisors and colleagues (feminine).
- Feeling it is acceptable to stay in the current position as long as a person wishes to (feminine).

If a masculine society/culture focuses on the achievement and material success, this would influence the IAF's work and structure in the same direction. The IAF and the internal auditors would see their own achievements as important, while the success of others (e.g. the auditee or other functions) is less important (Hofstede, 1980). Furthermore, the masculine understanding of a society, a group or a relationship to individuals is based on corrective judgments to improve one's own position and reach own objectives. This behaviour is less neutral as it is in feminine cultures, where the power of the own position is not used to adjust results.

2.5. Long-term orientation (LTO)

The fifth dimension describes the long-term and short-term orientation of societies/cultures. Long-term orientation means having a clear focus on the future with the acceptance of a dynamic environment, while short-term orientation stands for a focus on the present (history) and a static environment. Possible examples of both specifications are (Hofstede, 1997, p. 112):

- Focus on strategic objectives and persistence in reaching them (long-term).
- Hierarchy levels based on the personal status (long-term).
- Acceptance of tradition and known structure (short-term).
- Focus on operative objectives and short-term profits (short-term).

For every company, a sustainable long-term performance is the overall strategic objective. To reach this goal, every company attempts to maximize its profits with an adequate risk. Based on the definition of the IIA, internal audit has to add value through IAFs' consulting and assurance activities (Lenz & Hahn, 2015). Thus, if a culture has a long-term orientation, the activities of the IAF should be in-line with the company's strategy and strategic plans.

Following (Wong & Birnbaum-More, 1992), we hypothesize that cultural factors influence the organisation in every function and on every hierarchy level. In particular, we predict that the effects of Hofstede's dimensions UAI, IDV, PDI, MAS and, LTO also affect the structure and work of, and IAF. Therefore, we investigate the potential association between cultural dimensions and the structure and work of an IAF. However, we also consider institutional factors, which influence the implementation of an IAF as well. Well-known factors like size, listing status, mandatory need to implement an IAF, the existence of an audit committee or the international business activities of a company influence the existence and structure of an IAF also (Lenz et al., 2014). We include these institutional factors to control for other relevant influences on the structure and work of an IAF. Therefore, we use a framework with two dimensions: cultural factors and institutional factors. Figure 1 represents our conceptual framework.

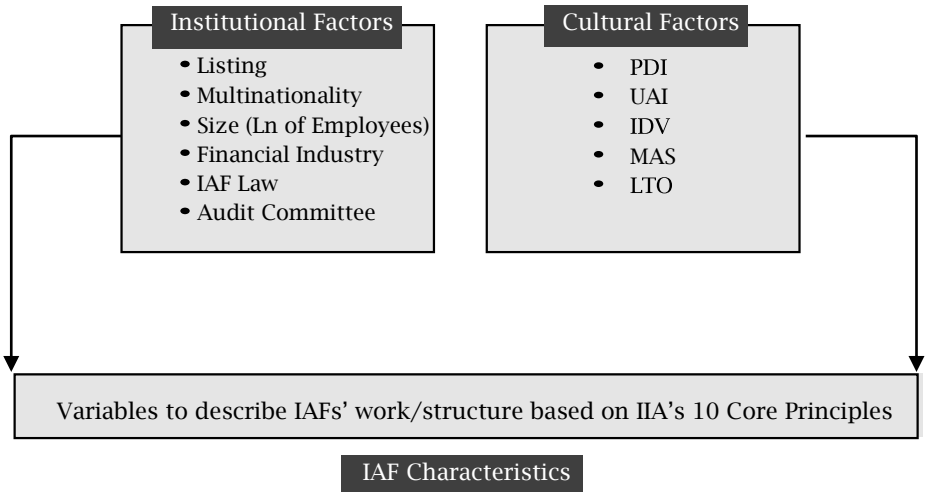
3. METHODOLOGY

3.1. Sample and data collection

In order to empirically test our conceptual model, we rely on secondary data. Our empirical analysis is based on the 2015 "Common body of knowledge" (CBOK) database, the most comprehensive global research base on the practice of internal auditing. The research, which is conducted and validated by the Institute of Internal Auditors Research Foundation (IIARF), is concerned with the worldwide current knowledge in internal auditing as well as current and future audit activities, IIA standards, and core competencies of internal auditors. The CBOK study contains data from more than 166 countries and over 14,518 useful survey responses. The survey includes answers from CAEs, internal audit service providers,

and internal audit staff. However, we only include answers from CAEs as we assume that an IAF has only one CAE. This results in a total of n = 3,282 CAE responses worldwide. The observations represent a broad spectrum of companies' industries and sizes. Table 1 presents descriptive statistics for the relevant variables of the companies (See Table 1 in appendix).

Figure 1. Conceptual framework



Furthermore, Table 1 shows the descriptives for Hofstede's cultural dimensions for all CBOK respondents who were included. The individual distribution of the respondents' countries is included the appendix.

In sum, the size of the dataset has favourable consequences for the statistical power. First of all, because of the large number of different observations, a broad variety of specific companies in different countries is given. Therefore, our sample has a great representativeness and allows a generalizability of our results, because of the broad variety of countries and a large number of observations, country-specific effects besides the Hofstede scores can be minimized. However, since the IIARF protected respondent anonymity, we are not able to include other information than that found in the CBOK survey and the cultural dimensions. Regarding the latter, we obtain those by matching the specific country in which the company is located to the value of Hofstede's cultural dimension in this specific country.

3.2. Measures

In this section, we will present all variables that were utilized to measure the structure and work of the IAF, the national culture, and relevant control measures for the companies.

3.2.1. IAF characteristics-dependent variables

To guarantee a value-adding position of the IAF, the IIA, as the worldwide standard-setter for the internal audit profession, defines so-called Core Principles to articulate internal audit effectiveness. The IIA explains this approach as follows: "For an internal audit function to be considered effective, all Core Principles should be present and operating effectively. How an internal auditor, as well as an internal audit activity, demonstrate achievement of the Core Principles may be quite different from organization to organization, but failure to achieve any of the Principles would imply that an internal audit activity was not as effective as it could be in achieving internal audit's mission". The ten Core Principles are:

- Demonstrate integrity;
- Demonstrate competence and due professional care;
- Objective and free from undue influence (independent);
- Align with the strategies, objectives, and risks of the organization;
- Appropriately positioned and adequately resourced;
- Demonstrate quality and continuous improvement;
- Communicate effectively;
- Provide risk-based assurance;
- Insightful, proactive, and future-focused;
- Promote organizational improvement.

These Core Principles are also in line with the current state of research on IAF's effectiveness (Arena & Azzone, 2007; Lenz et al., 2014; Lenz & Hahn, 2015; Abdolmohammadi, 2012). While there are numerous different ways of describing and evaluating the structure and work of an IAF, IIA's Core Principles can be seen as a worldwide standard for a functional IAF. But although the Core Principles are the main part of IIA's mandatory guidance in the International Professional Practice Framework (IPPF), their interpretation seems to be a bit fuzzy. Taking this into account, we chose a two-step approach to create a usable model.

In a first step, we use variables from the CBOK questionnaire to operationalize the ten Core Principles. In a second step, we combine the Core Principles with Hofstede's five cultural dimensions by examining a potential effect of the Hofstede's five cultural dimensions on the IAF characteristics.

- Measure for Integrity: we use the sum of implemented IAF guidelines as a measure for integrity because this formulation of understandable

and clear rules and guidelines is a common way to increase the quality and integrity of an IAF (Integer)[1].

• Measure for competence and professional care: sending IAF staff to training etc. is a typical way to improve their knowledge and competencies. However, it is not clear whether such a training (as an input) creates the necessary knowledge (as an output). Using the IAF as a "Management Training Ground" (MTG) is a good way of measuring the "output" of IAF's competence and professional care. Because only if the IAF staff members are competent, obtaining a future management position is possible. Thus, our measure of competence and professional care captures whether the company uses the IAF as an MTG (MTG)[2].

• Measure for objectivity and independence: questions about the objectivity and independence of an IAF are typical ways to describe an IAF's position in the company. Therefore, to operationalize objectivity and independence of the IAF, the compliance with the IIA standard 1100 on "Independence and Objectivity" is used (Ind-Obj)[3].

• Measure for alignment with strategy: we use the alignment of the IAF and the corporate strategy as a proxy for the influence of a long-term orientation of the structure of the IAF (Align-Strategy)[4].

• Measure for resources: we use the natural logarithm of IAF full-time employees as a proxy for adequate resources of the IAF (IAF-Staff)[5].

• Measure for continuous quality improvement: the implementation of a quality assurance program is one of the main tasks of state-of-the-art IAFs. Therefore, we use the implementation of a quality assurance and improvement program (QAIP) as a proxy for the 6th Core Principle (Qual-Ass)[6].

• Measure for effective communication: the communication and trustful relationship with management are very important for a well-functioning IAF. Therefore, we use a variable about "informing and advising the management" as a proxy for an effective communication (Inform-Mgt.)[7].

• Measure for risk-based assurance: we use a risk-based audit plan methodology as a proxy for the 8th Core Principle (Risk-based)[8].

• Measure for proactive and future-focused work: if an IAF is able to generate additional value through the identification of emerging or potential risks, the IAF works in a proactive and future-oriented way. Therefore, we operationalize the identification of emerging risks as a proxy for the 9th Core Principle (Emerg-Risk)[9].

• Measure for organizational improvement: the consulting part of IAFs' work has become increasingly important over the last years. Thus, to capture the organizational improvement, the activity of the IAF that brings the most value to the company is used (Orga-Imp)[10].

3.2.2. Cultural dimension factors-independent variables

Researchers studying the impact of culture on auditing (and accounting) generally use a limited number of well-known taxonomies of cross-national cultural differences such as Hofstedes (2001) cultural taxonomy. Hofstedes (2001) work has been employed in numerous cross-cultural management (e.g., Kirkman et al., 2006) and accounting studies (e.g., Kanagaretnam et al. 2014). The data is publicly available and covers all of Hofstede's dimensions. From the available 111 countries/regions, we had a direct match of 102 countries and 9 countries that were categorized through the region (e.g. "Tanzania" is "East Africa"). In Hofstede's database, different countries have different missing values so that not every observation has a complete set of all five values. Tables 4 to 6 report the values for all five dimensions as well as the number of observations and the percentage of the whole sample.

3.2.3. Institutional factors-control variables

Six control variables were employed in this study to represent the institutional factors of every observation (respectively company). The first two variables are Ln-Empl and Multinationality of the company. Both may influence the IAF characteristics of the company (Lenz et al., 2014). Ln-Empl is the logarithm of the number of employees of the company, while Multinationality is coded 1 if the company operates multinationality and 0 otherwise. The third control variable is Listing, a dummy-variable which takes the value of 1 if the company is listed and 0 otherwise. Fin-Ind is a dummy-variable to control for the financial sector, which typically is stricter regulated. The variable IAF-Law controls for a legal requirement to implement an IAF. The last control variable is AC, which takes the value of 1 if the company has established an audit committee and 0 otherwise (See Table 2 in appendix).

3.2.4. Models

We use linear regressions as well as logistic and ordered logistic regressions (depending on the type of dependent variable) to test the effects of the different country-level cultural variables on our dependent IAF variables. We estimate ten different models, one per IAF characteristic (as a proxy for a specific Core Principle). All follow the same structure:

[1] Question: 29. Which of the following internal audit policies or documents exist in your organization? (Choose all that apply.) Internal audit charter, Mission statement for the internal audit department, Internal audit operating manual, Internal audit strategy description, Code of conduct/ethics, Description of key process indicators (KPIs).

[2] Question: 35. Does your organization have a process in place to rotate staff through the internal audit department as part of training them for management in other parts of the organization? No; Yes, an informal process; Yes, a formal process.

[3] Question: 99. Is your organization in conformance with the Standards? 1100 Independence and Objectivity.

[4] Question: 57. To what extent do you believe your internal audit department is aligned with the strategic plan of your organization? Fully aligned, Almost fully aligned; Somewhat aligned; Minimally aligned; Not aligned.

[5] Question: 24. Approximately how many full-time equivalent employees make up your internal audit department?

[6] Question: 47. How developed are the quality assurance and improvement program (QAIP) at your organization?

[7] Question: 89. In your opinion, which are the internal audit activities that bring the most value to your organization. Answer: Informing and Advising Management).

[8] Question: 48. What resources do you use to establish your audit plan? (Choose all that apply.) - A risk-based methodology.

[9] Question: 89. In your opinion, which are the internal audit activities that bring the most value to your organization. Answer: Identifying emerging risks).

[10] Question: 89. In your opinion, which are the internal audit activities that bring the most value to your organization. Answer: Recommending business improvement).

$$IAFcharacteristic_{i=1\ldots10} = \beta_0 + \beta_1 x_{HofstedeDimensions1-5} + \beta_6 x_{Ln-Empl} + \beta_7 x_{Multinationality} + \beta_8 x_{Listing} + \beta_9 x_{Fin-Ind} + \beta_{10} x_{IAF-Law} + \beta_{11} x_{AC} + \varepsilon \quad (1)$$

4. FINDINGS AND DISCUSSION

We analyze the effects of Hofstede's cultural dimensions on ten different characteristics of an IAF, which were developed using the ten Core Principles of the IIA. Using ten different models with the same structure of variables allows us to compare the effects of a cultural dimension on different IAF characteristics.

Creating understandable and clear rules and guidelines are a common way to increase the quality and integrity of an IAF. IAFs with more regulations are accepted as a well-qualified and "regulated" function. Using the sum of IAF guidelines as the dependent variable for the first Core Principle, our model shows multiple significant effects. While it seems logical, that an individual culture will not accept a stricter extent of guidelines (IDV -3.21***), we predicted a positive effect of UAI and MAS, but found negative significant effects instead (UAI -2.72**, MAS -1.74*). We also found a negative significant effect for LTO (7.30***). Especially the controls LN-Empl, Fin-Ind and AC had a strong positive significant effect. Larger companies from the financial industry with an AC have a strong impact on the implementation of IAF guidelines.

For the test of our second Core Principle, operationalized through the implementation of an MTG, we find a positive and significant effect for PDI (4.69***) and UAI (-3.38***), while all other cultural dimensions were insignificant. Furthermore, the control variables for Multinationality (5.98***) and the existence of an audit committee (3.19***) have positive significant effects. The negative effect of UAI can be understood as an example for non-lifetime auditors. A culture with a high UAI wants an explicit job guarantee for the future, while individuals in cultures with a low UAI will try to get promoted to future management positions, although they have no guarantee. The positive effect of PDI could be interpreted as a chance to become a part of a strict hierarchy and to accept the established and executed relation between the IAF and all other stakeholders.

The third Core Principle, measured through the compliance with IIA Standard 1100 on "Independence and Objectivity", is significantly influenced by the cultural dimensions UAI (1.83*), IDV (-2.11**) and LTO (2.77***). For the control variables, we find significant effects for Fin-Ind and AC (-3.71*** and -3.64***). Cultures with a high UAI and/or a high LTO seem to support the compliance with IIA Standard 1100 on "Objectivity and Independence". In other words, a culture with a stronger long-term orientation and a higher uncertainty avoidance will improve the independence and objectivity of an IAF. On the other hand, a culture with a strong sense of individualism seems to be no support for an independent and objective IAF, since individualism causes subjective judgments.

Aligning the IAF with corporate strategy was a proxy for the fourth Core Principle. We find positive significant effects for four out of five cultural dimensions: PDI (1.96**), IDV (3.95***), MAS (3.56***), and LTO (5.86***). Furthermore, we identified three negative effects of the control variables: Ln-Empl (- 3.01***), Fin-Ind (-4.81***), and AC (-4.36***). A high PDI can be understood, e.g. as a clearly defined hierarchy in a company, where all relationships and interactions are autocratic. This argumentation supports our results, where a high PDI leads to a stronger alignment of the IAF and the strategy (which is developed by the management). This argument is also valid for cultures with a high MAS. A strategy is a path into the future with a long-time focus, which explains the positive result of LTO. The significance of IDV is counter-intuitive to our understanding of individualistic or collectivistic cultures. Normally, one would expect that the collectivist cultures attempt to reach a maximal alignment. However, our results do not show this behaviour.

Core Principle number five was integrated via the natural logarithm of IAF full-time employees. We observe negative significant effects for UAI (-3.19***). All other cultural dimensions were not significant. For the control variables, we find positive significant effects for Ln-Empl, Fin-Ind and AC (14.05***; 6.14*** and 2.68***). Our result for UAI is quite contra-intuitive, as cross-cultural researchers argue that cultures with a high uncertainty avoidance do not accept and do not feel comfortable in unstructured situations and try to have a few rules and monitoring activities as possible. Based on this argumentation, we would have expected cultures with a high uncertainty avoidance to have larger IAFs.

We used the maturity of the quality assurance and improvement program as a proxy for Core Principle six and find positive significant effects for the variables IDV (1.96**) and LTO (3.03***). Furthermore, the control variables Ln-Empl (5.44***), Fin-Ind (4.19***), IAF-Law (3.20***) and AC (3.41***) show positive effects. The significant effect of LTO is a sign for the long-term improvement process of a QAIP. The IAF wants to get better over time and assure that its work and effectiveness evolve. The positive effect of IDV is, therefore, an example of an IAF which works independently and tries to constantly improve its work.

Informing and advising the management is a good indicator of a close relationship between the IAF and management. Only if an IAF has adequate communication skills and communicates effectively, the different stakeholders will accept and use the results obtained by the IAF. We find positive significant effects for the three cultural dimensions IDV (3.97***), MAS (2.50**) and LTO (2.95***). Furthermore, we had significant effects for Multinationality (-2.39**), Fin.Ind (-2.57**), Ln-Empl (2.08**) and AC (-1.87**). An individualistic, masculine and long-term oriented culture supports the communication between the IAF and the management.

As a measure for the eighth Core Principle, we chose the implementation of a risk-based audit plan. Here, we find significant results for the cultural dimensions IDV (3.02***), MAS (-3.04***) and LTO (-5.45***). Additionally, four out of six control variables had positive effects: Multinationality (3.07***), Fin-Ind (3.66***), IAF-Law (1.65*) and AC (4.72***). The negative effect for MAS can be explained by the fact that feminine cultures are more risk averse and try to

protect themselves from potential risk situations. Furthermore, the risk environment can be characterized by a high degree of uncertainty, so that a long-term orientation seems not to be useful. The risk situation of a company can change on a daily basis and only if the IAF (and the risk-based audit plan) is as flexible as the environment, the IAF can work effectively. The positive effect of IDV could be an indicator for an IAF that tries to create their own risk assessment and an audit plan that is not based on others' objectives.

The future orientation of an effective IAF is another Core Principle and was measured through IAF's focus on identifying emerging risks. Only two of Hofstede's dimensions had negative significant effects, IDV (-1.92*) and MAS (-3.06***). Also, Listing (-3.83***), Multinationality (2.21**) and Fin-Ind (1.86*) were significant. One can argue that the negative effect of MAS is a perfect example of feminine cultures. These can be characterized, as mentioned above, as risk-averse. Emerging risks are a threat to the whole company, so that collective cultures will try to identify as many emerging risks as possible to secure the whole organization.

Our last model broaches the issue of business improvements. We identify a positive significant effect for UAI (4.58***). For the control variables, we can find significant negative effects for Fin-Ind and IAF-Law (-2.59** and -2.80***). The result suggests that cultures with a high UAI tend to have a stronger focus on business improvements and do not take too much risk. Improving companies' processes and structures always entails defining new rules and guidelines, which is indeed a typical sign of UAI. All results can be found in Table 3.

5. CONCLUSION

In this study, we examine whether soft cultural factors have an effect on the structure and work of an IAF. In doing so, we use Hofstede's five cultural dimensions and find multiple effects of Hofstede's cultural dimensions on factors that measure the IIA's ten Core Principles. For instance, our findings show that the two cultural dimensions, uncertainty avoidance and long-term orientation, improve independence and objectivity of the IAF. In contrast, a culture with a strong individualism seems to be unsupportive of an independent and objective IAF.

Our findings indicate that the national culture directly influences the different characteristics of an IAF. This is an important finding for both, practitioners and researchers. CAEs and boards have to understand how important the cultural dimensions are for the implementation of an effective and efficient IAF. Our study provides positive and negative effects of the different dimensions, based on our dependent variables. As a result, a CAE has to think about the cultural environment of the IAF, e.g. because of the multinationality of the company or audit teams in different areas, and restructure the IAF to meet the cultural requirements. Furthermore, the IIA or national chapters should think about a localization of the standards to account for different cultures in an optimal way. From a research perspective, our study is a starting point for future research in the area of cultural effects on the IAF. The effects of culture on the IAF could be relevant for quantitative, qualitative and experimental work. With the help of ten different models, we identify relevant significant effects for every cultural dimension, where positive and negative directions were possible. Our approach is the first step to investigate the influence of soft (cultural) facts with a direct relationship to the IAF.

Although our approach has numerous benefits, we are aware of different limitations. The major limitation is the reliance on the cultural dimensions of Hofstede as our main measurement for culture. Exploring new ways to operationalize national (corporate) culture are needed to verify Hofstede's taxonomy in the accounting and auditing context (see also Wong-On-Wing & Lui, 2013; Harrison & McKinnon, 1999 for further critique). Another limitation is the use of IIA's CBOK data because the questions were not originally defined for our research project. Furthermore, although the CAEs are well-trained and skilled subjects, they evaluate their IAF based on their own understandings and views, so that the answers represent a self-perception of the respondents. A last, but important limitation is the operationalization of the ten Core Principles. We identified potential proxies for each principle but had no variables that were constructed with a focus on the Core Principles.

Although our approach is a new way to analyze and understand the influence of culture on internal auditing, numerous new avenues of research are possible. Beside other methodologies, e.g. experiments or case studies, a deeper analysis of cultural clusters could be the next step in research. Also, studies on a firm-level could help to understand the challenges of multinational IAFs or the decision-making behind the international organization of IAFs. In addition, future research could consider regression model(s) differences in legal environment, which include policies on corporate governance, and accounting standards. Those factors likely influence the IAF. Furthermore, our results have a potential impact on the discussion of worldwide standards.

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APPENDIX

Table 1. Summary statistics: control variables and cultural dimensions

Cultural Dimensions					
Variable	***Mean***	***Std. Dev.***	***Min.***	***Max.***	***N***
PDI	56.087	19.423	11	100	3029
IDV	52.231	27.211	6	91	3029
MAS	54.679	16.335	5	100	3029
UAI	62.512	19.994	8	100	3029
LTO	48.48	25.083	9	100	2861
Control Variables					
Variable	***Mean***	***Std. Dev.***	***Min.***	***Max.***	***N***
Listing	0.292	0.455	0	1	3343
Multinationality	0.353	0.478	0	1	3343
Ln-Empl	6.506	2.531	0	14.613	3333
Fin-Ind	0.256	0.436	0	1	3343
AC	0.749	0.434	0	1	2663
IAF-Law	0.575	0.494	0	1	2673

Table 2. Variable description (Part I)

Variable	***Definition***	***Category***
Dependent Variables: IAF Characteristics		
Integer	The IAF has numerous documents to determine the work and increase the integrity.	Dep.Var.
MTG	The IAF is recognized as competent and professional and used as an MTG.	Dep.Var.
Ind-Obj	The IAF complies with IIA's standard on objectivity and independence.	Dep.Var.
Align-Strategy	The IAF is aligned with the strategy.	Dep.Var.
IAF-Staff	The IAF has enough resources.	Dep.Var.
Qual-Ass	The IAF continuously improves the quality.	Dep.Var.
Inform-Mgt.	The IAF has an effective communication and informs/advises the management.	Dep.Var.
Risk-based	The IAF uses a risk-based assurance plan.	Dep.Var.
Emerg-Risk	The IAF identifies risks in a proactive and future-focused way.	Dep.Var.
Orga-Imp	The IAF improves the whole organization	Dep.Var.
Independent Variables. Hofstede's Cultural Factors		
PDI	Measure of power distance from Hofstede (2001)	Indep.Var.
IDV	Measure of individualism from Hofstede (2001)	Indep.Var.
MAS	Measure of masculinity from Hofstede (2001)	Indep.Var.
UAI	Measure of uncertainty avoidance from Hofstede (2001)	Indep.Var.
LTO	Measure of long-term orientation from Hofstede (2001)	Indep.Var.

Table 2. Variable description (Part II)

Variable	*Definition*	*Category*
Control Variables: Institutional Factors		
Listing	Listing status of the company (yes (1)/no (0))	Control Var.
Multinationality	Multinational Activities (yes (1)/no (0))	Control Var.
Ln-Empl	Natural Logarithm of No. of Employees	Control Var.
Fin-Ind	Company from the Financial Industry(yes (1)/no (0))	Control Var.
AC	Company has an Audit Committee (yes (1)/no (0))	Control Var.
IAF-Law	Obligation to establish an IAF in home country (yes (1)/no (0))	Control Var.

Table 3. Regression results

Variables	***Core Principles***									
	1. *Integer*	2. *MTG*	3. *Ind-Obj*	4.*Align-Strategy*	5*IAF-Staff*	6.*Qual-Ass*	7.*Inform-Mgt.*	8.*Risk-based*	9.*Emerg-Risk*	10.*Orga-Imp*
PDI	1.55 (0.120)	4.69 (0.000)	0.88 (0.377)	1.96 (0.049)	0.64 (0.520)	-1.32 (0.188)	-0.49 (0.627)	0.07 (0.942)	-0.95 (0.343)	0.18 (0.855)
UAI	-2.72 (0.007)	-3.38 (0.001)	1.83 (0.067)	0.82 (0.410)	-3.19 (0.001)	-0.92 (0.359)	-0.44 (0.659)	-0.40 (0.691)	-1.39 (0.163)	4.58 (0.000)
IDV	-3.21 (0.001)	0.08 (0.936)	-2.11 (0.035)	3.95 (0.000)	-0.34 (0.733)	1.96 (0.049)	3.97 (0.000)	3.02 (0.003)	-1.92 (0.055)	1.46 (0.144)
MAS	-1.74 (0.082)	-0.99 (0.322)	-0.10 (0.920)	3.56 (0.000)	1.09 (0.275)	-1.22 (0.223)	2.50 (0.012)	-3.04 (0.002)	-3.06 (0.002)	0.87 (0.386)
LTO	-7.30 (0.000)	1.08 (0.279)	2.77 (0.006)	5.86 (0.000)	-0.34 (0.732)	3.03 (0.002)	2.95 (0.003)	-5.45 (0.000)	-1.20 (0.229)	-0.44 (0.662)
Listing	0.43 (0.669)	1.17 (0.241)	0.20 (0.838)	0.75 (0.453)	1.22 (0.223)	-0.35 (0.724)	-1.00 (0.317)	-0.12 (0.906)	-3.83 (0.000)	-0.33 (0.739)
Multinationality	0.85 (0.393)	5.98 (0.000)	-1.15 (0.251)	0.23 (0.822)	-1.03 (0.304)	0.62 (0.535)	-2.39 (0.017)	3.07 (0.002)	2.21 (0.027)	-0.21 (0.836)
Ln-Empl	7.31 (0.000)	1.49 (0.137)	-0.41 (0.685)	-3.01 (0.003)	14.05 (0.000)	5.44 (0.000)	2.08 (0.038)	1.39 (0.166)	-1.14 (0.253)	1.30 (0.192)
Fin-Ind	4.58 (0.000)	0.73 (0.464)	-3.71 (0.000)	-4.81 (0.000)	6.14 (0.000)	4.19 (0.000)	-2.57 (0.010)	3.66 (0.000)	1.86 (0.063)	-2.59 (0.010)
IAF-Law	1.10 (0.273)	1.63 (0.102)	-0.76 (0.445)	1.37 (0.172)	1.55 (0.122)	3.20 (0.001)	-1.49 (0.136)	1.65 (0.099)	-0.97 (0.330)	-2.80 (0.005)
AC	6.10 (0.000)	3.19 (0.001)	-3.64 (0.000)	-4.36 (0.000)	2.68 (0.007)	3.41 (0.001)	-1.87 (0.062)	4.72 (0.000)	-0.75 (0.454)	0.71 (0.480)
Model	LOG	OLOG	OLOG	OLOG	REG	LOG	LOG	LOG	LOG	LOG
No. Obs.	2251	2073	1875	2236	2171	2124	2215	2251	2215	2215
LR chi2(11)	267.96	136.67	103.65	147.04	26.85	129.23	102.11	218.64	49.53	49.59
Prob chi2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
(Pseudo) R2	0.0325	0.0574	0.0543	0.0235	0.1203	0.0466	0.0341	0.1245	0.0170	0.0163

Table 4. Country statistics (Part I)

Country	*Freq.*	*Percentage*	*Sum*	*PDI*	*IDV*	*MAS*	*UAI*	*LTO*
Albania	8	0.24	0.24	-	-	-	-	61
Algeria	10	0.30	0.55	-	-	-	-	26
Andorra	2	0.06	0.61	-	-	-	-	-
Argentina	45	1.37	1.98	49	46	56	86	20
Armenia	5	0.15	2.13	-	-	-	-	61
Australia	40	1.22	3.35	38	90	61	51	21
Austria	29	0.88	4.24	11	55	79	70	60
Azerbaijan	1	0.03	4.27	-	-	-	-	61
Bahamas	3	0.09	4.36	-	-	-	-	-
Bahrain	1	0.03	4.39	80	38	53	68	23
Bangladesh	14	0.43	4.81	80	20	55	60	47
Barbados	5	0.15	4.97	-	-	-	-	-
Belarus	2	0.06	5.03	-	-	-	-	81
Belgium	13	0.4	5.42	65	75	54	94	82
Belize	1	0.03	5.45	-	-	-	-	-
Benin (Africa West)	2	0.06	5.51	77	20	46	54	9
Bolivia	4	0.12	5.64	-	-	-	-	-
Bonaire, Saint Eustatius and Saba	1	0.03	5.67	-	-	-	-	-
Bosnia	9	0.27	5.94	-	-	-	-	70
Botswana (Africa East)	4	0.12	6.06	64	27	41	52	32
Brazil	55	1.68	7.74	69	38	49	76	44
Brunei Darussalam	1	0.03	7.77	-	-	-	-	-
Bulgaria	6	0.18	7.95	70	30	40	85	69
Burkina Faso (Africa East)	1	0.03	7.98	77	20	46	54	9
Canada	79	2.41	10.39	39	80	52	48	36
Cayman Islands	2	0.06	10.45	-	-	-	-	-
Chile	58	1.77	12.22	63	23	28	86	31
China	142	4.33	16.54	80	20	66	30	87
Colombia	34	1.04	17.58	67	13	64	80	13
Costa Rica	39	1.19	18.77	35	15	21	86	-

Table 4. Country statistics (Part II)

Country	*Freq.*	*Percentage*	*Sum*	*PDI*	*IDV*	*MAS*	*UAI*	*LTO*
Cote d'Ivoire (Africa West)	7	0.21	18.98	77	20	46	54	9
Croatia	15	0.46	19.44	73	33	40	80	58
Cyprus	6	0.18	19.62	-	-	-	-	-
Czech Republic	22	0.67	20.29	57	58	57	74	70
Denmark	18	0.55	20.84	18	74	16	23	35
Dominican Republic	8	0.24	21.08	-	-	-	-	13
Ecuador	35	1.07	22.15	78	8	63	67	-
Egypt	5	0.15	22.3	-	-	-	-	7
El Salvador	26	0.79	23.1	66	19	40	94	20
Estonia	20	0.61	23.71	40	60	30	60	82
Ethiopia (Africa East)	3	0.09	23.8	64	27	41	52	32
European Union	2	0.06	23.86	-	-	-	-	-
Fiji	5	0.15	24.01	-	-	-	-	-
Finland	14	0.43	24.44	33	63	26	59	38
France	94	2.86	27.3	68	71	43	86	63
French Polynesia	2	0.06	27.36	-	-	-	-	-
Gabon (Africa West)	1	0.03	27.39	77	20	46	54	9
Germany	99	3.02	30.41	35	67	66	65	83
Ghana	1	0.03	30.44	-	-	-	-	4
Greece	38	1.16	31.6	60	35	57	100	45
Guatemala	1	0.03	31.63	95	6	37	98	-
Guinea	1	0.03	31.66	-	-	-	-	-
Guyana	1	0.03	31.69	-	-	-	-	-
Haiti	4	0.12	31.81	-	-	-	-	-
Honduras	6	0.18	31.99	-	-	-	-	-
Hong Kong	2	0.06	32.05	68	25	57	29	61
Hungary	4	0.12	32.18	46	80	88	82	58

Table 5. Country statistics II (Part I)

Country	*Freq.*	*Percentage*	*Sum*	*PDI*	*IDV*	*MAS*	*UAI*	*LTO*
Iceland	3	0.09	32.27	-	-	-	-	28
India	67	2.04	34.31	77	48	56	40	51
Indonesia	36	1.1	35.41	78	14	46	48	62
Ireland	5	0.15	35.56	28	70	68	35	24
Israel	47	1.43	36.99	13	54	47	81	38
Italy	57	1.74	38.73	50	76	70	75	61
Jamaica	3	0.09	38.82	45	39	68	13	-
Japan	136	4.14	42.96	54	46	95	92	88
Jersey	1	0.03	42.99	-	-	-	-	-
Jordan	2	0.06	43.05	-	-	-	-	16
Kazakhstan	1	0.03	43.08	-	-	-	-	-
Kenya (Africa East)	13	0.4	43.48	64	27	41	52	32
Korea, South	17	0.52	44	60	18	39	85	100
Kuwait	4	0.12	44.12	-	-	-	-	-
Latvia	20	0.61	44.73	44	70	9	63	69
Lebanon	10	0.3	45.03	80	38	53	68	23
Liechtenstein	2	0.06	45.09	-	-	-	-	-
Lithuania	10	0.3	45.4	42	60	19	65	82
Luxembourg	12	0.37	45.76	40	60	50	70	64
Macedonia	11	0.34	46.1	-	-	-	-	62
Madagascar	1	0.03	46.13	-	-	-	-	-
Malawi	1	0.03	46.16	-	-	-	-	-
Malaysia	57	1.74	47.9	100	26	50	36	41
Mali	1	0.03	47.93	-	-	-	-	20
Mauritius	13	0.4	48.32	-	-	-	-	-
Mexico	39	1.19	49.51	81	30	69	82	24
Moldova	2	0.06	49.57	-	-	-	-	71
Montenegro	4	0.12	49.7	-	-	-	-	75
Morocco	2	0.06	49.76	70	46	53	68	14
Namibia (Africa West)	5	0.15	49.91	77	20	46	54	9
Netherlands	9	0.27	50.18	38	80	14	53	67
New Zealand	14	0.43	50.61	22	79	58	49	33
Nicaragua	16	0.49	51.1	-	-	-	-	-
Niger	1	0.03	51.13	-	-	-	-	-
Nigeria (Africa West)	13	0.4	51.52	77	20	46	54	9
Norway	10	0.3	51.83	31	69	8	50	35
Oman	19	0.58	52.41	80	38	53	68	23
Pakistan	7	0.21	52.62	55	14	50	70	50
Palestine	1	0.03	52.65	80	38	53	68	23
Panama	24	0.73	53.38	95	11	44	86	-
Papua New Guinea	1	0.03	53.41	-	-	-	-	-
Paraguay	6	0.18	53.6	-	-	-	-	-
Peru	27	0.82	54.42	64	16	42	87	25
Philippines	19	0.58	5	94	32	64	44	27 5

Table 5. Country statistics II (Part II)

Country	*Freq.*	*Percentage*	*Sum*	*PDI*	*IDV*	*MAS*	*UAI*	*LTO*
Poland	35	1.07	56.06	68	60	64	93	38
Portugal	14	0.43	56.49	63	27	31	99	28
Puerto Rico	5	0.15	56.64	-	-	-	-	0
Qatar	9	0.27	56.92	80	38	53	68	2
Reunion	1	0.03	56.95	-	-	-	-	-
Romania	13	0.4	57.34	90	30	42	90	52
Russia	19	0.58	57.92	93	39	36	95	81
Saudi Arabia	69	2.1	60.02	-	-	-	-	36
Senegal (Africa West)	3	0.09	60.12	77	20	46	54	9
Serbia	18	0.55	60.66	86	25	43	92	52
Singapore	18	0.55	61.21	74	20	48	8	72
Slovakia	1	0.03	61.24	100	52	100	51	77

Table 6. Country statistics III

Country	*Freq.*	*Percentage*	*Sum*	*PDI*	*IDV*	*MAS*	*UAI*	*LTO*
Slovenia	25	0.76	62	71	27	19	88	49
South Africa	67	2.04	64.05	49	65	63	49	-
Spain	59	1.8	65.84	57	51	42	86	48
Sri Lanka (ex-Ceilan)	5	0.15	66	-	-	-	-	0
Swaziland (Africa East)	6	0.18	66.18	64	27	41	52	32
Sweden	25	0.76	66.94	31	71	5	29	53
Switzerland	95	2.89	69.84	34	68	70	58	74
Taiwan	146	4.45	74.28	58	17	45	69	93
Tanzania (Africa East)	53	1.61	75.964	27	41	52	32	
Thailand	3	0.09	75.99	64	20	34	64	32
Togo	5	0.15	76.14	-	-	-	-	-
Tunisia	5	0.15	76.29	-	-	-	-	-
Turkey	46	1.4	77.7	66	37	45	85	46
Uganda (Africa East)	18	0.55	78.24	64	27	41	52	32
Ukraine	17	0.52	78.76	-	-	-	-	86
United Arab Emirates	67	2.04	80.8	80	38	53	68	23
United Kingdom	26	0.79	81.6	35	89	66	35	51
United States	560	17.06	98.66	40	91	62	46	26
Uruguay	12	0.37	99.02	61	36	38	98	26
Venezuela	1	0.03	99.06	81	12	73	76	16
Yemen	2	0.06	99.12	80	38	53	68	23
Zambia	1	0.03	99.15	-	-	-	-	30
Zimbabwe (Africa East)	28	0.85	100	64	27	41	52	32
Overall	3282							