CULTURE AND PROFITABILITY: EMPIRICAL EVIDENCE AT A EUROPEAN LEVEL

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Abstract

Organizational cultures distinguish different organizations within the same country or countries. When comparing the organizations within the same country differences in national cultures are not relevant but become relevant in comparison between different countries. This paper intends to evidence whether the profitability of companies can be influenced by the national culture. In order to characterize the culture of each country, we used the Hofstede measure of cultural dimensions (1. Power Distance (PDI); 2. Uncertainty Avoidance (UAI); 3. Individualism (IDV); 4. Masculinity (MAS); 5. Long-Term Orientation (LTO); and 6. Indulgence vs Restraint (IND)). Sample was based on the 500 largest European companies rated by the Financial Times 2015. Profitability was measured by the ratios Return on Assets (ROA) and Return on Equity (ROE). Statistical tests were performed to test whether the means of the variables used to measure profitability are statistically equal. The results indicate that companies with higher profitability are from countries with lower Power Distance, lower Uncertainty Avoidance, Long-Term Orientation, and Higher Indulgence.

Keywords: Culture, Cultural Dimension, National Culture, Profitability

1. INTRODUCTION

Cultural differences between nations are reflected mainly in their values. Differences in culture have considerable influence on both the personal and corporate domains of society. In organizations, cultural differences are noted primarily in their practices and have been recognized as one of the most influential factors when considering organizational performance. In this scope, Sagiv and Schwartz (2007) concluded in their research that company's values are more important than those of market forces. This improved importance of culture for researchers in organisational studies has become a source in the development of different theories, frameworks and models in order to clarifying organizational culture.

The relationship between organizational culture and performance has been underlined by several authors, such as Rousseau (1990), Kotter and Heskett (1992), Marcoulides and Heck (1993), Ogbonna and Harris (2000), Ehtesham et al. (2011), and Ahmad (2012)). Furthermore, national culture is another important consideration due to its deeply rooted connection with values, rooted in our daily life. The changes in national values are a matter of generation power; cultural values are part of our daily life. Similarly behaviour is produced by the adopted cultural values. Therefore, it is appropriate to say that national values have an impact on organizational culture as well. Hofstede (1991) states that behaviour at work is a continuation of behaviour learned earlier. Some managers have realized that any organization also has its own corporate culture. Thus, cultural values strongly affect all who are involved in the organization. Those values are almost invisible, but if we would like to improve performance and profitability, cultural values are the first question to be considered. Several papers have underlined the influence of culture on finance. Stulz and Williamson (2003) have demonstrated the effect of national culture on protection of creditor rights.

This paper aims to investigate the association between the national culture and the profitability of European companies. We focus on the role of national culture in explaining cross-country differences in profitability. There is considerable empirical support for the importance of country-level variables such as creditor rights and financial structure and firm-level variables such as firm size as determinants of profitability around the world (see, for example, Cho et al., 2014; Ozgulbas et al., 2006). In this paper, we introduce the cultural variable and we pretend to know that there is an association between each of the six dimensions of culture defined by Hofstede (2010) and the profitability.

It is organized as follows. Next section addresses the prior research and hypotheses while Section 3 describes the methodology and methods used in the research. Section 4 is dedicated to empirical results and discussion while final remarks and expected future outcomes are stated in the last section.

2. LITERATURE REVIEW

One of the more important questions in management has been why some organizations are well succeeded while others failed. It has been essential for managers to know which factors influence the organization's performance in order for to implement the appropriate strategies. Cohen

et al. (1992) provide a framework for the examination of cultural and socioeconomic factors that could impede the acceptance and implementation of a profession's international code of conduct. Han et al. (2010) have studied whether the degree in which managers exercise earnings discretion relates to their culture, as well as the institutional features of their country. They found that *Uncertainty Avoidance* and *Individualism* dimensions of national culture explain managers' earnings discretion across countries and that this association varies with the strength of investor protection code of conduct. With a growing interest in how different cultural backgrounds affect markets, Curtis et al. (2012) have examined the impact of national culture on ethical decision making. To understand and to predict the behaviour of individuals with different cultural roots should lead not only to changes in the organizational structure but also change the practices in the world market. Probably these changes and practices will lead to more efficient and effective business practices (Curtis et al., 2012).

Chan and Cheung (2012) examines the differences in corporate governance practices in firms across different countries using the concept of ethical sensitivity and found that Hofstede's cultural dimensions can explain the differences in corporate governance practices. Furthermore, the results demonstrate the influence of culture on ethical sensitivity, which eventually determines the corporate governance practices in different regions. In essence, organisational practices are based on culture and most organisations avoid cultural risks to manage their businesses (Kanungo, 2006). Differences in culture comprise an important subject in the management area. Such differences affect almost every aspect of business particularly the strategic and organizational aspects.

Hofstede (1991) initially developed four dimensions of culture values, namely *Power Distance*, uncertainty avoidance, *Individualism* versus *Collectivism* and *Masculinity* versus *Femininity*; and later added two dimensions, long term versus short term orientation and *Indulgence* versus *Restraint*. Since then, researchers have used the Hofstede's measures to evaluate the different dimensions of a society's culture. Those measures have not been free from criticism and are definitely not exact or perfect measures of culture. However, it is fair to say that they have become the support of study of culture and their differences. This study has adopted the Hofstede's model once it is seen as the one that accurately fits with culture. Thus, it internationally used in a wide variety of empirical studies (Kirkman et al. 2006). The model integrates several dimensions, namely:

- *Power Distance* - The extent to which the less powerful members of an organization accept that power is unequally distributed. It suggests that a society's level of inequality is endorsed by the followers as much as by the leaders. Power and inequality are extremely fundamental facts of any society and anybody with some international experience will be aware that all societies are unequal, but some are more unequal than others.
- *Uncertainty avoidance* - The extent to which people feel threatened by ambiguous situations and have created beliefs and institutions that they try to avoid. The fundamental issue here is how a society deals with the fact that the future can never be known: should we try to control the future or just let it happen? Countries exhibiting strong UAI maintain rigid codes of beliefs and behaviours, and are intolerant of unorthodox behaviour and ideas. They are usually countries with a long history, the population is not multicultural, i.e. homogenous, risks, even calculated, are avoided in business and new ideas and concepts are more difficult to introduce People in *Uncertainty Avoidance* countries are also more emotional, and motivated by inner nervous energy. Weak UAI societies maintain a more relaxed attitude in which practice counts more than principles. Some of the common traits found in countries that score low on the *Uncertainty Avoidance* scale are usually a country with a young history, the population is much more diverse due to waves of immigration, risk is embraced as part of business and innovation and pushing boundaries is encouraged. People are more tolerant of opinions different from what they are used to; they try to have as few rules as possible, and on the philosophical and religious level they are relativist and allow many currents to flow side by side, are more phlegmatic and contemplative, and not expected by their environment to express emotions.
- *Individualism* – *Individualism* versus *Collectivism*. It embodies the degree to which individuals are integrated into groups. This dimension reflects an ethnic position of the culture, in which people are supposed to look after themselves and their immediate families, or a situation in which people belong to groups or collectives which are supposed to look after them in exchange for loyalty. A society's position on this dimension is reflected in whether people's self-image is defined in terms of "I" or "we". On the individualist side we find societies in which the ties between individuals are loose, a person's identity revolves around the "I". It is acceptable to pursue individual goals at the expense of others. *Individualism* is encouraged whether it is personality, clothes or music tastes. On the collectivist side, we find societies in which people from birth onwards are integrated into strong, cohesive in-groups which continue protecting them in exchange for unquestioning loyalty, "We" is more important that "I", conformity is expected and perceived positively, Individual's desires and aspirations should be limited if necessary for the good of the group, the rights of the family are more important, rules provide stability, order and obedience.
- *Masculinity* - *Masculinity* versus *Femininity*. It refers to the distribution of emotional roles between the genders which is another fundamental issue for any society to which a range of solutions are found. The *Masculinity* side of this dimension represents a preference in society for achievement, heroism, assertiveness and material rewards for success. Society at large is more competitive. Its opposite, *Femininity*, stands for a preference for cooperation, modesty, caring for the weak and quality of life. Society at large is more consensus-oriented. In the business context *Masculinity* versus *Femininity* is sometimes also related to as "tough versus tender" cultures. In countries that score high on the *Masculinity* scale life's priorities are

achievement, wealth and expansion, it is acceptable to settle conflicts through aggressive means, women and men have different roles in society and professionals often "live to work", meaning longer work hours and short vacations. In countries that score low on the *Masculinity* in life the main priorities are the family, relationships and quality of life, conflicts should ideally be solved through negotiation, men and women should share equal positions in society and professionals "work to live", meaning longer vacations and flexible working hours

- *Long-Term Orientation* - Long-term oriented societies promotes pragmatic virtues oriented towards future rewards, in particular thrift, persistence, and adapting to changing circumstances. Short-term oriented societies promotes virtues related to the past and present such as national pride, respect for tradition, preservation of "face", and fulfilling social obligations. Countries that score low on this dimension prefer to maintain time-honoured traditions and norms while viewing societal change with suspicion. Those with a culture which scores high take a more pragmatic approach: they encourage thrift and efforts in modern education as a way to prepare for the future. In the business context this dimension is related to as normative (short term) versus pragmatic (long term) ".
- *Indulgence versus Restraint* - *Indulgence* stands for a society that allows relatively free gratification of basic and natural human drives related to enjoying life and having fun. *Restraint* stands for a society that suppresses gratification of needs and regulates it by means of strict social norms.

Table 1 evidences the six dimensions of national culture values and the consequences of each dimension to organizations. According to Blaško et al. (2000), cross-border mergers are more difficult and trickier to manage than domestic mergers due to divergences in corporate culture, reward systems and organizational structures, which are influenced by the national culture.

Taylor and Wilson (2012) analyses several independent datasets of culture and innovation from 62 countries and confirm that high-levels of cultural *Individualism* correlate with national innovation rates, implying that *Individualism* generally helps, and *Collectivism* generally damage, rates of technology patenting and scientific research publication.

The researches of Gerecke and House (2013) examined the demographic characteristics of the 57 TMTs, in the 2006 Fortune Global 500 banking sector, relative to their companies' change in return-on-assets from 2007 through 2009.Changes in corporate profitability during this period were found to be significantly correlated with Hofstede's national culture dimensions of LTO (+), IDV (-) and MAS (-).

Lievenbrück and Schmid (2013) examine whether cultural differences between countries help in explaining firms' hedging decisions. The analysis reveals a strong impact of a country's *Long-Term Orientation*, which reduces the probability for hedging and the hedged volume. Moreover, hedging with options is less common in countries with a high level of *Masculinity*. Overall, the results reveal that culture has a strong impact on the hedging behaviour of firms.

Shao et al. (2013) find that *Individualism* is positively associated with firms' risk taking behaviours, the firms in individualistic countries invest more in long-term (risky) than in short-term (safe) assets.

Griffin et al. (2015) examined why corporate governance varies widely across countries and across firms, and why such variation matters and find that the national cultural dimension of *Individualism* is positively associated with, whereas the national cultural dimension of *Uncertainty Avoidance* is negatively associated with, firm-level corporate governance practices.

Ahem et al. (2015) find strong evidence that three key dimensions of national culture (trust, hierarchy, and *Individualism*) affect merger volume and synergy gains. The volume of cross-border mergers is lower when countries are more culturally distant. In addition, greater cultural distance in trust and *Individualism* leads to lower combined announcement returns.

Using three of Hofstede's cultural value dimensions (*Individualism*, *Long-Term Orientation*, and *Indulgence*) Shi and Veenstra (2015) investigates how firm financial performance is affected by corporate social performance initiatives and national cultural values and find that the interactions between corporate social performance measures and *Individualism/Indulgence* negatively affect firm value whereas the interactions between corporate social performance measures and *Long-Term Orientation* positively impact firm value.

Based on the assumptions that culture can influence companies' performance indicators, we formulate our hypotheses as follows:

H1: Companies from countries with higher *Power Distance* has a different profitability of companies from countries with lower *Power Distance*.

H2: Companies from countries with higher *Uncertainty Avoidance* has a different profitability of companies from countries with lower *Uncertainty Avoidance*.

H3: Companies from countries with higher *Individualism* has a different profitability of companies from countries with lower *Individualism*.

H4: Companies from countries with higher *Masculinity* has a different profitability of companies from countries with lower *Masculinity*.

H5: Companies from countries with higher *Long-Term Orientation* has a different profitability of companies from countries with *Long-Term Orientation*.

H6: Companies from countries with higher *Indulgence* has a different profitability of companies from countries with lower *Indulgence*.

Table 1. Six dimensions According to Hofstede and their Organizational Consequences

Power Distance

Low (Austria, Denmark, Finland, Ireland, Norway, Sweden and Switzerland)	High (Belgium, France, Poland, Portugal, Romania, Russia and Turkey)
• Less centralization • Smaller wage differentials • Structure in which manual and clerical workers are in equal jobs. • Subordinates expect to be consulted • The ideal boss is a resourceful democrat	• Greater centralization • Large wage differentials • Structure in which white-collar jobs are valued more than blue-collar jobs. • Subordinates expect clear guidance from superiors • The ideal boss is a benevolent autocrat, or "good father

Uncertainty Avoidance

Low (Denmark, Ireland, Netherlands, Norway, Romania, Sweden, and UK)	High (Belgium, France, Poland, Portugal, Russia, Spain and Turkey)
• Managers are more involved in strategy • Managers are more interpersonal oriented and flexible in the styles • Managers are more willing to make individual and risky decisions • Lower satisfaction scores • Less power through control of uncertainty • Fewer written rules • Variability • Greater willingness to take risks	• Managers are less involved in strategy • Managers are more task-oriented and consistent in their styles • Managers are less willing to make individual and risky decisions • High satisfaction scores • More power through control of uncertainty • More written rules • Standardization • Less willingness to take risks

Individualism

Low (Austria, Czech Republic, Portugal, Romania, Russia, Spain, and Turkey)	High (Belgium, Denmark, Italy, Netherlands and UK)
• Involvement of individuals with organizations primarily moral • Employees expect organizations to look after them like a family and can become very alienated if organization dissatisfies them • Organization has great influence on member's well-being • Employees expect organization to defend their interests. • Policies and practices are based on loyalty and sense if there is duty and group participation • Promotion is from inside and seniority • Less concern with fashion in managerial ideas. • Policies and practices vary according to relations.	• Involvement of individuals with organization primarily calculative. • Organizations are not expected to look after employees from the cradle to the grave • Organization has moderate influence on member's wellbeing • Employees are expected to defend their own interests • Policies and practices should allow individual initiative • Promotion is from inside and outside and market value. • Promotion is based on market value. • Managers try to be up to date and endorse modern management ideas

Masculinity

Low (Denmark, Finland, Netherlands, Norway and Sweden)	High (Australia, Ireland, Italy, Romania and Switzerland)
• Sex roles are minimized • Organizations do not interfere with people's private lives • More women in more qualified jobs • Soft, yielding, intuitive skills are rewarded • Lower job stress • Social rewards are valued • Resolution of conflicts by compromise and negotiation	• Sex roles are clearly differentiated • Organizations may interfere to protect their interest • Fewer women in qualified jobs • Aggression, competition, and justice are rewarded • Higher job stress • Work is valued as a central life interest • Resolution of conflicts by letting the strongest win

Long-Term Orientation

Low (Denmark, Finland, Ireland, Norway, Poland and Portugal)	High (Belgium, Czech Republic, Germany, Russia and Switzerland)
• Meritocracy, rewards by abilities • Focus on the "bottom line"	• Wide social and economic differences are undesirable • Focus is on market position

Indulgence

Low (Czech Republic, Italy, Poland, Portugal, Romania and Russia)	High (Denmark, Netherlands, Sweden, Switzerland and UK))
• More neurotic personalities • Thrift is important • Strictly prescribed gender roles	• More extroverted personalities • Thrift is not very important • Loosely prescribed gender roles

Source: Adopted from Hofstede (2010)

3. METHODOLOGY

3.1 Data source

This research is based on 500 largest European companies included in the *Financial Times* 2015 classification, with reference to 2014 market value. From initial sample were eliminated fifty companies with extreme values of ROE variable since it had very high standard deviation values. Largest companies were selected towards the analysis of a set of companies that are economically important and that operate in multiple environments such as legal, institutional, economic and cultural conditions. The information about companies was obtained from *Datastream* database. These companies were aggregated in ten activity sectors: 1. Basic materials; 2. Consumer goods; 3. Consumer services; 4. Financials; 5. Health care; 6. Industrials;

7. Oil & gas; 8. Technology; 9. Telecommunications and 10. Utilities.

3.2 Variables

The cultural dimension was measured applying the six dimensions presented by Hofstede (2010): 1. *Power Distance* (PDI); 2. *Uncertainty Avoidance* (UAI); 3. *Individualism* (IDV); 4. *Masculinity* (MAS); 5. *Long-Term Orientation* (LTO); and 6. *Indulgence* vs *Restraint* (IND). Profitability was measured by the Return on Assets (ROA) and Return on Equity (ROE). These indicators are often used in financial and accounting literature in evaluating the performance of companies. ROA is calculated by dividing a company's annual earnings by its total assets giving an idea as to how efficient management is at using its assets to generate earnings. ROE is calculated by dividing a company's annual earnings by its Shareholder's Equity and shows how well a company uses investments to generate earnings growth.

4. RESULTS

4.1 Descriptive analysis

The 450 companies were integrated into ten activity sectors and the number of companies from each sector is shown in Table 2. The main representative (25.8%) is the sector *Financials* (which includes financial services, nonlife insurance, life insurance, banks, real estate investment and services and real estate investment trusts). The second most representative sector (19.2%) is the *Industrials* (which includes aerospace and defence, construction and materials, electronic and electrical equipment, general industrials, industrial engineering, industrial transportation and support services), followed by the sector *Consumer goods* (which includes automobiles and parts, beverages, food producers, household goods and home construction, personal goods, and tobacco) which represents 12.0%.

Table 3 evidences that the most represented country is United Kingdom (22.7%), France (16%), and Germany (12.4%). Austria, Czech Republic, Romania and Portugal evidence a very residual influence in this sample.

Table 2. Activity sectors

Activity sector	*N*	*%*
Basic materials	43	9.6
Consumer goods	54	12.0
Consumer services	48	10.7
Financials	116	25.8
Health care	21	4.7
Industrials	89	19.8
Oil & gas	25	5.6
Technology	14	3.1
Telecommunications	16	3.6
Utilities	24	5.3
Total	450	100.0

Table 3. Countries

Country	*N*	*%*
Austria	4	0.9
Belgium	9	2.0
Czech Republic	2	0.4
Denmark	11	2.4
Finland	7	1.6
France	72	16.0
Germany	56	12.4
Ireland	5	1.1
Italy	23	5.1
Netherlands	19	4.2
Norway	9	2.0

Country	*N*	*%*
Poland	9	2.0
Portugal	3	0.7
Romania	1	0.2
Russia	14	3.1
Spain	24	5.3
Sweden	27	6.0
Switzerland	39	8.7
Turkey	14	3.1
UK	102	22.7
Total	450	100.0

Table 4 evidences the dimensions scores applied in this study. A higher degree of the *Power Distance* index is shown by Russia (93) and Romania (90). On the other hand Austria (11) and Denmark (18) have a lower *Power Distance*. *Uncertainty Avoidance* scores are the highest in Portugal (104), Russia (95) and Belgium (94). They are lower for Denmark (23) and Sweden (29). Regarding the *Individualism* index is highest in UK (89) and Netherland (80); and lowest in Portugal (27), Turkey (37) and Russia (39). *Masculinity* is high in Romania (90) and Austria (79). In contrast, *Masculinity* is low in Sweden (5) and Norway (8). High *Long-Term Orientation* scores are found in Germany (83), Belgium (82) and Russia (81); and low in the Ireland (21) and Portugal (28). *Indulgence* scores are highest in Sweden (78), Denmark (70) and UK (69); and lowest in Romania and Russia (20).

Table 5 illustrates the main descriptive statistics measures considering the 500 companies and considering the sample composed by 450 companies.

Table 4. Six dimensions from Hofstede

Country	*PDI*	*UAI*	*IDV*	*MAS*	*LTO*	*IND*
Sweden	31	29	71	5	53	78
Norway	31	50	69	8	35	55
Netherlands	38	53	80	14	67	68
Denmark	18	23	74	16	35	70
Finland	33	59	63	26	38	57
Portugal	63	104	27	31	28	33
Russia	93	95	39	36	81	20
Spain	57	86	51	42	48	44
France	68	86	71	43	63	48
Turkey	66	85	37	45	46	49

Country	*PDI*	*UAI*	*IDV*	*MAS*	*LTO*	*IND*
Belgium	65	94	75	54	82	57
Czech Rep	57	74	58	57	70	29
Poland	68	93	60	64	38	29
Germany	35	65	67	66	83	40
UK	35	35	89	66	51	69
Ireland	28	35	70	68	24	65
Italy	50	75	76	70	61	30
Switzerland	34	58	68	70	74	66
Austria	11	70	55	79	60	63
Romania	90	30	42	90	52	20

Table 5. Descriptive measure

Variable	*N*	*Mean*	*Median*	*Standard deviation*
considering 500 companies				
ROA	500	5.32	4.25	6.471
ROE	500	16.31	11.69	48.792
considering the sample				
ROA	450	5.07	4.02	5.021
ROE	450	13.09	11.8	8.705

4.2 Hypothesis tests

We used the *t*-Student test to verify a difference between sample means. The null hypothesis is rejected in case of *Power Distance*, uncertainty avoidance, *Long-Term Orientation* (considering the profitability measured by ROE) and *Indulgence* evidencing that there is a difference between the mean of profitability obtained by the different groups considering the different dimension of culture.

In case of *Individualism* and *Masculinity* the null hypothesis is not rejected, which supports the evidence that there is no statistical differences between the mean of profitability obtained by the different groups considering the different dimension of culture.

4.2.1 Culture dimensions and the profitability

Power Distance and profitability

Table 6 evidence the descriptive measures of the *Power Distance* and profitability and the tests of the null hypotheses (H_0). This hypothesis states that the mean of ROA or ROE of European companies with high PDI is equal to the mean of ROA of European companies with low PDI. The results from *t*-Student test also supports the rejection of the null hypothesis evidencing that there is a difference between the indicator ROA and ROE obtained by companies from countries with high PDI and the same indicator obtained by companies from countries with low PDI. Empirical evidence supports that the larges mean is observed in the group with companies from countries with low PDI (Austria, Denmark, Finland., Ireland, Norway, Sweden and Switzerland)

Table 6. The Power Distance and the profitability

	Power Distance	*N*	*Mean*	*Standard deviation*
ROA	High PDI	190	4.05	4.316
	Low PDI	260	5.81	5.365
	t Test for equality of means: $t_{(448)} = -3.741$; $p = 0.00$			
ROE	High PDI	190	11.74	8.860
	Low PDI	260	14.07	8.471
	t Test for equality of means: $t_{(448)} = -2.832$; $p = 0.01$			

Uncertainty Avoidance and profitability

Concerning *Uncertainty Avoidance* and profitability the results from *t*-Student test supports the rejection of the null hypothesis evidencing that there is a difference between the indicator ROA and ROE obtained by companies from countries with high UAI and the same indicator obtained by companies from countries with low UAI (Table 7). Empirical evidence supports that the larges mean is observed in the group with companies from countries with low UAI (Denmark, Sweden, Romania, Ireland, UK, Norway, Netherlands, Switzerland and Finland).

Table 7. The Uncertainty Avoidance and the profitability

	Uncertain avoidance	*N*	*Mean*	*Standard deviation*
ROA	High UAI	231	4.28	4.480
	Low UAI	219	5.90	5.420
	t Test for equality of means: $t_{(448)} = -3.474$; $p = 0.00$			
ROE	High UAI	231	12.22	8.801
	Low UAI	219	14.00	8.523
	t Test for equality of means: $t_{(448)} = -2.178$; $p = 0.03$			

Individualism and profitability

Table 8 evidence the descriptive measures of *Individualism* and the ROA and ROE respectively and the results of *t*-Student test. The results derived from t-Student test indicate that there isn't a statistical difference between the profitability obtained by countries with low or high *Individualism*. These results do not support the results presented by Shi and Veenstra (2015) and Gerecke and House (2013).

Table 8. The Individualism and the profitability

	Individualism	*N*	*Mean*	*Standard deviation*
ROA	High IDV	164	5.02	4.606
	Low IDV	286	5.09	5.252
	t Test for equality of means: $t_{(448)} = -0.135$; $p = 0.89$			
ROE	High IDV	164	12.92	8.534
	Low IDV	286	13.1	8.815
	t Test for equality of means: $t_{(448)} = -0.297$; $p = 0.77$			

Masculinity and profitability

Table 9 relate to the descriptive measures of the *Masculinity* and profitability and the results of *t*-Student test. The results evidence that the null hypothesis cannot be rejected confirming that there is no difference between the ROA or ROE obtained be countries with high or low *Masculinity*. These results do not support the results presented by Gerecke and House (2013).

Table 9. The Masculinity and the profitability

	Masculinity	*N*	*Mean*	*Standard deviation*
ROA	High MAS	229	5.44	5.214
	Low MAS	221	4.68	4.793
	t Test for equality of means: $t_{(448)} = 1.594$; $p = 0.11$			
ROE	High MAS	229	13.61	8.491
	Low MAS	221	12.54	8.902
	t Test for equality of means: $t_{(448)} = 1.302$; $p = 0.19$			

Long-Term Orientation and profitability

Table 10 includes the descriptive measures of the *Long-Term Orientation* and profitability measured by ROA and ROE indicators and the results of *t*-student test. Considering the ROA the results evidence that the null hypothesis cannot be rejected confirming that there is no difference between the ROA obtained be countries with high or low *Long-Term Orientation*. Considering the ROE, the results evidence that there is a difference between the ROE obtained by companies from countries with high LTO and the same indicator obtained by companies from countries with low LTO.

Empirical evidence supports that the largest mean is observed in the group with companies from countries with low LTO (Ireland, Portugal, Denmark, Norway, Finland, Poland, Turkey, Spain, UK, Romania and Sweden).These results do not support the results presented by Shi and Veenstra (2015) and Gerecke and House (2013).

Table 10. The Long-Term Orientation and the profitability

	Long-Term Orientation	*N*	*Mean*	*Standard deviation*
ROA	High LTO	234	4.77	4.994
	Low LTO	216	5.38	5.042
	t Test for equality of means: $t_{(448)} = -1.285$.; $p = 0.20$			
ROE	High LTO	234	12.27	8.659
	Low LTO	242	13.98	8.687
	t Test for equality of means: $t_{(448)} = -2.100$; $p = 0.04$			

Indulgence and profitability

Table 11 evidence the descriptive measures of the *Indulgence* and profitability measured by ROA and ROE and the results of *t*-student test. Empirical evidence support the largest mean is observed in the group with high IND (Sweden, Denmark, UK, Netherlands, Switzerland, Ireland, Austria, Finland and Belgium). The results from *t*-Student test evidencing that there is a difference between the profitability obtained by the companies from countries with high *Indulgence* and companies from countries with low *Indulgence*. These results do not support the results presented in Shi and Veenstra (2015) study may be because this study does not incorporate corporate social performance measures.

Table 11. The Indulgence and the profitability

	Indulgence	*N*	*Mean*	*Standard deviation*
ROA	High IND	223	5.87	5.398
	Low IND	227	4.27	4.493
	t Test for equality of means: $t_{(448)} = 5.000$; $p = 0.00$			
ROE	High IND	255	14.02	8.506
	Low IND	245	12.17	8.819
	t Test for equality of means: $t_{(448)} = 2.372$; $p = 0.02$			

Our study contributes to show how culture can affect firm profitability. Our findings suggest that cultural values should be accounted for when designing government policies aimed at encouraging entrepreneurship, innovation, and growth. Our results can also be used by investors so that they can direct their investments to companies in countries with lower values of *Power Distance*, Uncertainty Avoidance, *Long-Term Orientation* and higher values of *Indulgence*. European countries represented in our sample with simultaneous low *Power Distance*, uncertainty avoidance, *Long-Term Orientation* and higher *Indulgence* are Denmark, Sweden, Ireland and Finland. However it is necessary to consider other factors that may influence the profitability of companies.

5. CONCLUSIONS

This paper aims to investigate the association between the national culture and the profitability of European companies. Based on the Hofstede's model (based on cultural dimensions), the results indicate that companies with higher profitability are from countries with lower *Power Distance*, *Uncertainty Avoidance*, *Long-Term Orientation*, and higher *Indulgence*. However, the dimensions *Individualism* and *Masculinity* do not influence the profitability.

European countries with simultaneous low *Power Distance*, uncertainty avoidance, *Long-Term Orientation* and higher *Indulgence* are Denmark, Sweden, Ireland and Finland and are the countries that tend to have higher profitability. On the other hand, European countries with simultaneous high *Power Distance*, uncertainty avoidance, *Long-Term Orientation* and low *Indulgence* are Germany, Italy, Czech Republic, France and Russia. These countries tend to evidence lower profitability levels. The results achieved in this research are not aligned Shi and Veenstra (2015) research. Our research does not incorporate the measures of corporate social performance, taking into account only the Hofstede's cultural dimensions. Not surprisingly, our results do not corroborate the achievements of Gerecke and House (2013), probably because this research is limited to banking sector. However, our findings can contribute for the literature with practical insights about the impact of cultural dimensions on European countries profitability. Regarding the limitations, this research was conducted only for one year and in the scope of the European companies. To extend the range of time and the number of counties under analysis will contribute to refute or corroborate the evidences achieved in the current research and the other approaches carried out over time.

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