DIVIDEND POLICY AND SOCIO-CULTURAL FACTORS: SOME PRELIMINARY FINDINGS

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ABSTRACT. This study analyzes the impact of socio-cultural factors on dividend policy in 83 countries, for 12,150 companies in the period of 2009-2013. Using a hierarchical linear modelling it is noticed that there is a significant influence of socio-cultural factors on the dividend payout decision. Also, some financial factors, considered classics in literature, have been tested. Using a Logit-Normal Generalized Linear Mixed Effects Model it is proven that there is an association between socio-cultural factors and the probability to pay dividends. The main results confirm that religion, corruption, anti-self dealing index, law system, property rights and business freedom index have a significant impact on dividend policy.

1. INTRODUCTION

In the last years, a significant number of researchers suggest that cultural and social foundations have a significant influence on the decisions of any type of individuals around the world, including the decisions within companies (Sekely and Collins, 1988; Shao et al, 2010; Dragotă et al., 2018). The past literature does not close the gap of finding the full list of factors, which affect corporate decisions. The focus of the study is to analyze the factors, which may influence the corporate dividend payout decision, in terms of propensity to distribute dividends, which is defined as the probability that a company distributes a positive dividend payout ratio (Denis and Osobov, 2008). Thus, I identified new factors that influence the propensity to distribute dividends, and I emphasized that religion, among other socio-cultural factors, can be a significant factor which might be considered when we are looking at the dividend policy.

Finding the determinants of dividend payout is a historical concern in Corporate Finance literature (Lintner, 1956; Fidrmuc and Jacob, 2010). The classical question marks emphasized in the syntagm 'the dividend puzzle' (Black, 1976) still wait for some answers. In this context, from an academic perspective, finding an association between some cultural factors and dividend policy is in line with some previous studies (Firdmuc and Jacob, 2010). There are at least two main interests in the academic literature when analyzing the dividend policy:

1) Finding the factors which influence the size of dividends – where the dividend payout ratio is the dependent variable (La Porta et al., 2008; Dragotă et al, 2009; Bae et al., 2009; Shao et al., 2013; Ucar, 2016; Yaseen, 2019; Yaseen and Dragotă, 2019 etc.) and

2) Finding the relevant factors which determine a higher probability (propensity) to distribute dividends, instead of reinvesting all the net earnings for future projects (Denis and Osobov, 2008).

Considering that an increasing number of companies decide not to distribute dividends (in my database there are more than 50% of the companies), the focus of this study is to investigate what are the factors which determine a higher propensity to pay dividends.

In addition to previous literature, the models reveal that some socio-cultural factors might be associated with the probability that a company is a dividend payer. Hence, this study can be useful also for practitioners. It can help people interested in identifying the probability that a company distributes dividend if it operates in a given country. This study represents also the basis for further research to find more theoretical and empirical grounds for the association between religion and dividend policy. The factors considered in this empirical analysis could be also relevant in relation to other financial and economic decisions.

Using a large database of 12,150 companies from 83 countries, I identified a list of factors that have a significant influence on the decision to distribute dividends. Also, the results show the association between the factors and the probability to distribute dividends (strictly higher than 0).

This study highlights the fact that the probability to distribute dividends increases in countries where the majority religion is Catholicism and decreases in countries where the majority religion is Orthodox. In addition, if a country is less corrupt, there is a higher likelihood that a company that operates in the country is characterized by a higher probability to distribute dividends. 'Freedom of doing business' is a factor which influences positively the propensity to pay dividends. If a country is very strong in defending the rights of minority shareholders, the companies activating in that country are more likely to pay dividends to shareholders, as stated also by La Porta et al., 2000. In the same time, there is a significant influence of the companies' financial indicators interacting with socio-cultural variables.

The rest of the paper is organized as follows. Chapter 2 presents a brief summary of the past literature that has proved controversial opinions on dividend policy. Chapter 3 presents the database, the hypothesis tested and the methodology used. Under this chapter, I also motivate the choice to analyze the relationships between socio-cultural factors and the probability of distributing dividends using hierarchical generalized mixed effects models with adapted logit models. Chapter 4 includes the empirical results and the last chapter highlights the main conclusions. Also, the last chapter presents the future directions and improvements that should be implemented, underlining that this work represents a significant basis for further research.

2. Literature review

In the recent years, socio-cultural aspects were taken into consideration in literature as they could represent some of the determinants of the dividend policy (Shao et al., 2010; Bae et al., 2012). Core values, life experience, and the environment have significant influence on individuals' decisions. Consequently, this research came to prove that the cultural foundations of shareholders and managers in companies greatly affect the dividend policy.

The theory stated by Miller and Modigliani (1961) sparked various debates on dividend policy. They say that, when some theoretical conditions are met, the value of company's shares is not influenced by the dividend policy. Thus, many researchers provide different explanations and theories in order to counter the dividend policy irrelevance. These theories can be structured in four categories:

The first category includes theories that take into consideration transaction costs and dividend taxation, which lead to heterogeneous dividends. This is called "catering theory of dividend policy" defined by Baker and Wurgler (2004). According to this theory, for similar companies, those that distribute higher dividends, have higher share prices than the companies that have lower dividends or even zero dividend. However, recent studies are in contradiction with this theory. Denis and Osobov (2008) demonstrated that there are not enough arguments to sustain the clientele effect as a determinant factor for dividend policy.

A second category refers to the Signaling Theory of dividends. It means that the dividends may represent a good signal for the future performance of the company. Lintner (1956) proposes a model of information asymmetry and highlights the relevance of dividends on future growth of corporate earnings. In the same time, the signaling theory became relevant for determining

whether a company will record a higher performance due to a change in the dividend policy Bhattacharya, 1979; Kalay 1980. This is also disagreed in the recent studies Karpavicius (2014).

Using a dynamic stochastic general equilibrium model, Karpavicius (2014) demonstrates that dividends cannot be used to predict future performance of the company. Moreover, he suggests that dividend policy is closely related to the environment in which the company operates. In addition to this, Jitendra (2014) explores the irrelevance of signaling theory, from empirical point of view. The analysis shows that the behavior of listed companies' stock prices in India is not affected by lowering or raising the level of dividends.

In the third category, I include the theories on dividend policy that might be also subject to agency problems, which can arise between managers and shareholders. Therefore, the decision on the size and on the frequency of dividends could be interpreted at a personal level, more than in relation to the company's financial results. These issues are consistent with the third theory on dividend policy, namely - agent theory (Easterbrook, 1984; La Porta et al.; 2000). This implies that financial managers would be interested in finding ways to reduce dividends in order to retain the necessary cash flows inside the company and therefore, to be used for future investments. Thus, the life principles and core values defined during the life might influence more the investors' decision process.

In the past literature, it has been shown that, from one year to another, fewer companies decide to distribute dividends. Fama and French (2001) showed that the main reason why an increasing number of companies decide not to pay dividends is that the number of small and unprofitable listed companies exploded in the recent years. Most of these companies decide not to pay dividends and to retain profits for future investments.

A very interesting study of Huang et al. (2015) assesses the impact of political instability on the dividend payout ratio. The authors used a database with companies from 35 countries during 1980-2009. They demonstrated that during the times of high political instability, companies that distribute dividends in recent years are more likely not to distribute dividends and companies that did not pay dividends before the instability period, are likely to begin to distribute dividends. In addition to this, they identified that undervalued companies with not liquid shares, are more likely to begin to pay dividends in times of political instability than in times of stability. This is consistent with the clientele effect of dividends. In this context, the dividend can be considered as a substitute for liquidity.

Moreover, companies start to pay dividends in times of political uncertainty and they have significantly higher performance than those that do not pay dividends in such periods. In addition to this, Huang et al. (2015) demonstrate that there is no correlation between the dividend policy and the future performance of these companies. Thus, the assumption that the dividend may be a signal for future revenue growth of the company, it is not confirmed - as demonstrated also by Bhattacharya (1979), John and Williams (1985) and Miller and Rock (1985). They all show that companies use different information – including also the dividend policy decisions - designed to alter investors' perceptions of the company's value.

Recently, a fourth category includes the increasing number of studies which analyze the relationship between the dividend payout ratio and socio-cultural factors. Some of these researches take into consideration the cultural dimensions as they are described by Hofstede (2001) and Schwartz (2006). Khambata and Liu (2005), Fidrmuc (2010), Shao (2010), Bae et al. (2012) and Yaseen and Dragota (2019) and investigated the relevance of cultural aspects on the dividend policy. The first three take into account the cultural dimensions formulated by Hofstede, and the others consider those defined by Schwartz. All of these studies reached the same conclusions. Their results highlight the significant impact of cultural elements on the dividend policy. They have shown that there is a negative relationship between the size of dividends and the power distance, uncertainty avoidance and the mastery level of population. In addition, countries with high level of individualism and with a high degree of integrity are more likely to distribute higher dividends. During this research, I decided not to look at the impact of these cultural aspects on the probability of paying dividends since it was demonstrated that these

dimensions are closely related to the main religion in the country. Therefore, for this empirical study I used religion, as being a good proxy for culture. As Hilary and Hui (2009) and Ucar (2016) suggested, I used the assumption that people act and behave in accordance with their beliefs and religion orientation. Also, their preferences towards savings and investments could be explained by the religious denomination and confession (Renneboog and Spaenjers, 2012).

3. Data, Hypothesis Tested and Methodology

In this study, all companies' financials were collected from Thomson Research Worldscope[1] database. This includes only countries which have more than 10 companies available for the entire period analyzed. I excluded Afghanistan, Algeria, Kosovo, Laos, and Uzbekistan because they don't provide financial data for more than 10 companies. Financial institutions are not part of the final database. I included only those companies, which had available data for the entire period analyzed. In this database, companies which do not have data available for the payout ratio, are considered being not dividend payers. This is a limitation of the exported data and also a limitation of the study, which will be improved in our future research.

The final database consists in 12,150 companies from 83 countries, for the period from 2009 to 2013. In the future research, it would be useful to have an extended period in order to increase the time variability of the data. Another idea for an in depth research could be to analyze separately the companies which did not report the dividend payout ratio for some years from those companies that distribute dividends equal to 0%.

Appendix 1 shows the distribution of the number of companies per country. This distribution is the same for each year. The average number of companies per country is 150.

Table 1. Definitions of control variables included in the models	
Control Variable	Calculation method / Definition
Tobin's Q	(Market capitalization + Total Debt) / Total assets
Roe (%)	Net profit at the end of the year / equity at end of year
Roi (%)	The ratio of net profit after payment of dividends plus interest paid and equity plus debt
LEV	Company Leverage calculated as the ratio of total liabilities and equity
Beta Value	The volatility of the company's shares in the last 5 years
Ln (Total Assets)	Logarithm value of total assets in each company
Foreign Holdings (%)	The percentage of shares held by foreign investors in the company
Government Held (%)	The percentage of shares held by the government in the company
Investment Co. Held (%)	The percentage of shares held by investment funds in company
Employee Held (%)	The percentage of shares held by employees in the company

I standardized the variables included in the models which have a standard deviation higher than 30%. It is also useful because the random effects estimators follow a normal distribution. This helps variables to have a normal distribution and to reach more relevant models. Standardized variables[2] are Tobin's Q ratio, ROE, ROA, ROI, leverage, logarithm of total assets.

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[1]The acces to the Thomson Reasearch Worldscope Database was granted by Deloitte Romania in the year of 2014.

[2]Standardized values are calculated using: z=(x-m)/var; where z is the standardized variable, x not standardized, m is the sample average of the variable and var is the variance of the variable within the sample

The explanatory variables included in the model were winsorized at a level of 2% in order to exclude the extreme values.

3.1. **Variables included.** The dependent variable of the regressions covers only the propensity to distribute dividends. For reaching the purpose of the research, the dependent variable of the models is a binary variable which highlights the propensity to distribute dividends. It was constructed a dummy variable equal to 1 if the company pays dividends (dividend payout ratio higher than 0) and 0 if the company does not pay dividends (dividend payout ratio equals 0 in that year). If one company decides to pay any amount as dividend, it can be considered that this company is (at least at a minimum level) concerned about its shareholders.

Table 2. Data source and related studies for socio-cultural variables		
Socio-cultural variable	Data Source	Related studies
Religion	Religion International Association [1]	Ucar (2016)
The origin of the legal system	Andrei Shleifer database [2]	La Porta, R. et al (1999), Goyal and Muckley (2013), Brockman and Unlu, E (2009), La Porta et al (1998), Dittmar et al (2003), La Porta et al. (2000)
Anti-Self Dealing Index (ADI)	Djankov et al. (2008) [3]	La Porta et al. (2000)
Freedom of doing Business (FB)	Heritage Foundation [4]	We did not identify any previous research regarding the association between the FB and the dividend policy around the world
Corruption Perception Index (CPI)	Transparency International [5]	We did not identify any previous research regarding the association between the CPI and the dividend policy around the world
The volatility of the economic growth in the last 5 years	World Bank Database [6]	We did not identify any previous research regarding the association between the volatility of the economic growth and the dividend policy around the world
Property Rights	Heritage Foundation	La Porta et al. (1998), La Porta et al (2000)
Notes: [1] http://thearda.com/		
[2] http://scholar.harvard.edu/shleifer/publications/economic-consequences-legal-origins		
[3] Djankov,S., La Porta, R., Lopez-de-Silanes, F., Shleifer, A .(2008). The law and economics of self-dealing. Journal of Financial Economics 88 (2008) 430–465.		
[4] "The Heritage Foundation is a research and educational institution—a think tank—whose mission is to formulate and promote conservative public policies based on the principles of free enterprise, limited government, individual freedom, traditional national values, and a strong national defense." For more information please visit: http://www.heritage.org/index/explore		
[5] "Through more than 100 national chapters worldwide and an international secretariat in Berlin, Transparency International works with partners in government, business and civil society to put effective measures in place to tackle corruption." For more information please visit: https://www.transparency.org/whoweare/organisation/		
[6] http://data.worldbank.org/topic/economy-and-growth; http://data.worldbank.org/topic/financial-sector		

I used the following control variables: Tobin's q and Return on Equity, company size – described using ln (total assets), leverage, beta value, return on investment and some capital structure variables (as in Rozeff, 1982; Fama and French, 2001; Fidrmuc and Jacob, 2010 and Shao et al., 2010). For the purpose of the study, I employed the methodology applied by Fidrmuc and Jacob (2010), Shao et al. (2010) and Ucar (2016). However, it would be very interesting to test in the future the influence of past financial indicators on the future dividend

payout decision. Table 1 (above) presents the definitions of the indicators. Socio-cultural data are mainly collected in the period of January – March 2015. In table 2 (above), I present the source of these data and some related studies.

I constructed a dummy variable for religion and legal origins. For example, if a company operates in a country where the majority religion of the population is Catholic, then the dummy variable is 1, otherwise is 0. The same applies also for the legal origin.

3.2. **Hypothesis tested.** Religion could be in a strong association with the corporate dividend policy because religion gives people different perceptions about the future and life success. The differences between confessions lead their adaptors to have different behaviors that offer diverse solutions for similar issues. Religion can also indicate a specific individual preference for consumption, saving and/or investment. Numerous studies identified also some relationships between religion and corporate finance. Weber (1930) is one of the first researchers that studied the impact of different confessions on financial decisions and on the companies' share prices. He proposed the theory that the Protestant confession increased the capitalism. Stulz and Williamson (2003) have argued that the Protestant confession emphasizes individualism and personal responsibility, and this could lead to different economic performance. La Porta et al. (1999) and Stulz and Williamson (2003) provides empirical arguments that the Protestant countries are characterized by better corporate governance and it is much stronger than in Catholic countries. On the other hand, Muslims are less risk-tolerant compared to Eastern Orthodox, Catholic or Protestant (Bartke and Schwarze, 2008) and this may affect the final decision to distribute dividends or not. Based on an extensive research, conducted by Pew Research Center[3], which includes a survey of 18 countries in Central and Eastern Europe, we can say that the Eastern Orthodox countries are more conservative that Catholic counties. For Eastern Orthodox adherents there is only a one source of divine revelation when it comes to the importance of scripture: Tradition. They are more resistant to innovations and reforms. Catholics and Protestants are more open for spontaneity during worship and liturgy. This means that Eastern Orthodox adherents are more conservative than Catholics and Protestants. A conservative approach in terms of dividend decision may be to retain the net earnings within the company instead of financing future project through external resources (for example, through loans). For this study, I investigate if there is a different impact of Eastern Orthodox compared to Catholic denomination. Therefore, the first hypothesis tested within this study is:

Hypothesis 1: Religion might have a significant influence on the dividend payout decision. Eastern Orthodox countries might influence negatively, and Catholics might influence positively the propensity to distribute dividends.

Anti-Self Dealing Index is calculated by Djankov et al. (2008) and it represents the index of minority shareholder protection. They calculate the indicator for a large number of countries. It focuses on the enforcement of the law and its drafting and approval mechanisms at the private level. Over time, economists have collaborated with researchers and they addressed legal aspects in order to emphasize the crucial role played by the law and the legal system in controlling abusive corporate transactions. Clark (1986) conducted an initial research in this area. He argues theoretically and empirically that the differences in the level of investors' protection in each country shape the insider's ability to expropriate. Thus, the market confidence of an investor might increase and this leads to a higher level of market development. Therefore, a higher level of protection of minority shareholders could lead to a higher probability to distribute dividends, by using all their rights to extract dividends from companies.

Hypothesis 2: A higher level of minority shareholders protection leads to higher probability to distribute dividends.

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[3]https://www.pewresearch.org/ - Pew Research Center is a nonpartisan fact tank that informs the public about the issues, attitudes and trends shaping the world. It conducts public opinion polling, demographic research, media content analysis and other empirical social science research.

Property Rights. A powerful system that defends the property rights is one of the fundamental requirements of a capitalist economic system, and perhaps one of the most misunderstood concepts. Existing theories suggest that property rights have a direct impact on the investment and financing decisions at the company level. Companies operating in a country characterized by uncertainty of the property rights are also uncertain about the ability to retain the profits within the company, and therefore, they will reduce the level of investment (North, 1990). Also, Cull and Xu (2005) highlight that property rights affect firms' tendency to reinvest profits. If there is a low level of rights protection, there is a chance that the profit will be distributed as dividends. On the other hand, when property rights are well protected, an increase in investment will bring higher profits in the future. Therefore, it will lead to a higher likelihood to distribute dividends sometimes in the future. It is important to note, that both the rule of law and property rights are factors that do not have time variability, and they can only be changed by a radical change within the system.

Hypothesis 3: The likelihood of distributing dividends increases in countries where the property rights index is higher.

Legal Origins. The legal system can be an explanatory variable for highlighting the different levels of financial development. Law systems differentiate among them base on their ability to adapt to change. There are systems that adapt faster and manage to minimize the differences between the contractual needs of the economy and the practical needs from companies.

Literature explains that Great Britain has more efficient public institutions than France has. In line with this assertion, North (1988) argues that, compared to French civil law countries, the British common law ones are more likely to inherit institutions where law enforcement is more effective. Thus, the legal origin can be a good proxy to characterize institutions in a specific country and there might be the case that the actual legal system of the country differs from its legal origin. I used the legal origin variable in the study. Countries practicing a common law system protect investors outside the company, both shareholders and creditors, while the French legal system is characterized by less protection for companies' stakeholders.

La Porta et al. (1998) argues that the German and Scandinavian civil law system is applied better than in the common law system, whereas the French civil law system is characterized by a reduced degree of enforcement. Thus, the applicability of legislation can determine the extent to which shareholders are protected. These issues may influence controlling shareholders to distribute dividends or not. If the enforcement of the law is poor, the protection of shareholders is consequently low. Thus, companies in countries where the common law system applies, where the protection of shareholders is higher, can distribute higher dividends and, in the same time, the likelihood of distributing dividends could be higher.

In different jurisdictions, the laws, which protect investors, come from different sources, which include commercial law, bankruptcy law, competition law, capital market law, and accounting standards. The way they are applied and enforced is also very important, perhaps even more important than their actual content. In most countries, regulations and laws are partially enforced, in the first place by market regulators, by the court, and also by market participants. All external investors, whether small or large, shareholders or creditors, need to have their rights protected in order to take rational and best-substantiated decisions. Absence of rights and lack of effective enforcement would discourage insiders from paying their creditors and distributing dividends to shareholders. Therefore, the corporate funding mechanisms would tend to have different role than the one for which they were implemented.

On the other hand, the decision to distribute the dividends is also subject to agency problems. Investors can emphasize this issue, especially in countries with good legal protection because they can use all their legal powers to extract dividends, especially when the opportunities for reinvestment are reduced. According to Dragotă (2006), the protection of minority shareholders can be achieved only through well-formulated laws, but also taking into account the enforcement of these laws. Thus, the legal system influences significantly the decision to distribute dividends. Based on these considerations, the following tested hypothesis is:

Hypothesis 4: *The likelihood of distributing dividends increases in countries where the legal origin is common law system.*

Freedom of doing business. The relationship between the economic freedom and economic growth attracted more attention in the last years. Freedom of doing business is a component of the economic freedom of a country. This indicator quantifies the number of procedures taken in each country in order to initiate and operate a business. To some extent, this indicator could be a good proxy for the bureaucracy in each country. The literature reveals that economic freedom has positive effects on the development level and the on economic growth of the country, both on long-term and short-term. The "Freedom of doing business" considers also the government intervention on corporate activity. The smaller the indicator is the higher "freedom of doing business" is. Therefore, it is interesting to analyze the relationship between this indicator and the propensity to distribute dividends given that the bureaucracy could be one of the greatest failures within society. Hence, an additional hypothesis is tested within this research:

Hypothesis 5: *High level of freedom of doing business (i.e. less bureaucracy), could lead to a higher probability of distributing dividends.*

Corruption Perception Index. In the last years, there is a high interest to analyze the relationship between corruption and economic factors. It was examined which could be the consequences on economic development. Meysam (2011) analyzed the association between the corruption perception index with the market development. He demonstrated that there is an exponential function between the two. In addition, he showed that there is a negative relationship between the level of corruption and the improvement of the financial system in the period of 2007-2009, by using a large database of 46 countries. According to the literature, the corruption may be one of the biggest disruptions within the global decisions processes, but also within the company. Yaseen and Dragota (2013) proved that Corruption Perception Index might be a significant factor in relation to the size of dividends out of the net profits of the company. Therefore, another hypothesis is:

Hypothesis 6: High level of corruption perception index could lead to lower probability for companies to distribute dividends.

The volatility of the economic growth in the last 5 years. This factor was used to measure the development level of the financial market. A greater stability in terms of economic growth is a feature of developed economies. It has been shown in numerous studies that developed countries grow at a lower rate and when they face crisis periods, the impact is also lower than it is in developing countries. In other words, the developing countries grow with a higher growth rate and in the periods of turbulence, they are more affected. Developed countries are characterized by high standard of living of the population leaving in that country, through higher GDP per capita. Yaseen (2019) proved that the population standard of living influences significantly the companies' decision to distribute high share of the net profits as dividends. Therefore, I consider that these macroeconomic issues lead shareholders and company managers to take specific decisions in terms of dividend policy. A high level of macroeconomic stability could lead to a higher probability to distribute dividends. On the other hand, in a period with a high volatility on economic growth, companies need to retain the profits for gaining advantage during or after any shock they could experience.

Hypothesis 7: The volatility of economic growth influences negatively the propensity to distribute dividends.

In table 3, I present the descriptive statistics of the variables used in the regressions, including also the qualitative variables. In this table are presented the descriptive statistics of the variables, including also the qualitative variables for which we used dummy variables as follows: 1 if the majority religion is Catholic, 0 otherwise; 1 if the majority religion is Orthodox, 0

otherwise etc.; 1 if the legal origin is common law, 0 otherwise; The variables which are named with "_std" were standardized[4] at the country level. All variables were 2% winsorized.

Table 3. Descriptive statistics of the variables included in the models								
Variable	Average	Median	Min	Max	Standard Devia- tion	No. of obs.	No. of compa- nies	No. of coun- tries
Control Variables								
Tobin's Q _std	0.00	1.65	0.23	8.00	1.55	60,750	12,150	83
Roe _std (%)	0.00	-0.24	-46.74	4.88	2.37	60,750	12,150	83
Roi _std (%)	0.00	-0.11	-9.39	6.56	1.00	60,750	12,150	83
LEV _Std	0.00	-0.19	-2.23	10.04	1.00	60,750	12,150	83
Beta Value	0.65	0.70	0.00	2.31	0.54	60,750	12,150	83
Ln (Total Assets) _std	0.00	-0.07	-20.49	3.36	1.57	60,750	12,150	83
Foreign Holdings (%)	21.52	0.00	0.00	100.00	28.85	60,750	12,150	83
Government Held (%)	5.87	0.00	0.00	100.00	15.77	60,750	12,150	83
Investmnt Co. Held (%)	2.06	0.00	0.00	96.00	10.34	60,750	12,150	83
Employee Held (%)	2.14	0.00	0.00	82.00	6.49	60,750	12,150	83
Socio-Cultural Variables								
Catholic	0.39	0.00	0.00	1.00	0.49	60,750	12,150	83
Orthodox	0.10	0.00	0.00	1.00	0.30	60,750	12,150	83
Muslim	0.24	0.00	0.00	1.00	0.43	60,750	12,150	83
Protestant	0.14	0.00	0.00	1.00	0.35	60,750	12,150	83
Uk law (common law)	0.31	0.00	0.00	1.00	0.46	60,750	12,150	83
Fr law (civil law)	0.45	0.00	0.00	1.00	0.50	60,750	12,150	83
Anti-Self-Dealing Index	0.47	0.44	0.09	0.96	0.23	49,490	9,898	66
Property Rights	58.17	50.00	0.00	95.00	23.46	60,750	12,150	83
Corruption Perception Index	5.26	4.80	1.90	9.60	2.21	60,750	12,150	83
Business Freedom	74.06	74.70	35.50	99.90	14.58	60,750	12,150	83
Economic growth volatility (5Y)	3.09	2.50	0.64	10.34	1.78	60,020	12,004	82

In Appendix 2, I show the correlation matrix between all the variables. In order to avoid multicollinearity problems, there were not included variables with a correlation index higher than 30%. For example, ROE and ROI are strongly correlated with Tobin's Q and that is way different models were constructed. Moreover, there is a high correlation (40%) between ln (GDP per capita) and corruption perception index (CPI). Therefore, I chosen CPI to analyze the influence of the cultural aspects on the probability to distribute dividends.

3.3. **Methodology.** In this paper, I used Logit-Normal Generalized Linear Mixed Effects Models (GLMM). These are useful in order to highlight the direct and indirect effects of the socio-cultural factors on the dividend payout decision around the world. Also, they take into account that the database is structured on different layers. This methodology is presented in more details by Raudenbush şi Bryk (2002) şi de Goldstein (2003).

These models are used to model better the social influences on some other variables because the social factors does not vary within a country. This could be overcame by using random effects at a country level. Also, using GLMM I could estimate better the coeficients if I have missing data for the financial indicators. For example, there might be the case that for 1 year for a specific number of companies, the data were not available in the database. In the same time, these model are used in biology and in medicine in order to identify the probability of

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[4] $z = \frac{x-m}{var}$; ; where z is the standardized variable, x not standardized, m is the sample average of the variable and var is the variance of the variable within the sample

infection of some groups of people (Paulino, Soares, Neauhaus (2003). In addition to this, such models were used in credit risk management and in portfolio credit risk modelling (Frey şi McNeil (2001), McNeil şi Wendin (2007)) and in stress testing Jakubik şi Schmieder (2008).

4. Main results

Table 4 presents the results of five models selected as being the most representative from statistical point of view, from a list of approx. 70 models developed for this scope.

Using Logit-Normal GLMM, the study proves that estimated probability to distribute dividends for the period 2009-2013 is significantly influenced by both company related determinants and by socio-cultural factors, which were taken into consideration in this article. It is to be noticed that the determination ratios of the models increased significantly after introducing the socio-cultural variables in the model, on top of financial indicators at company level.

The table shows the models that best represent the dividend policy in socio-cultural context. These were selected as the most representative for the relationship between the explanatory variables and the dependent variable from a range of about 70 models estimated. We have removed the Buddhist religion and Muslim from the analysis because it was found to be insignificant in most of the models. The significance level is represented by " " for 10%, „ ." for 5%; * for 1%; ** for 0.1%; *** for 0%; (z-statistic). "^" – represent the fact that the variable is squared. These models are selected to be the most representative taking into consideration the informational criteria indicators: AIC, BIC and loglikelihood.

The models reveal that the probability of distributing dividends is in a negative association with the Eastern Orthodox confession. It is possible that the Eastern Orthodox population believes that they could obtain higher dividends in the future, if they reinvest the profit today, more than catholic population does. On the other hand, Eastern Orthodox population might be more patient than the catholic one.

Table 4. Direct effects on the probability to distribute dividends (control variables)					
Variabile	Model 1	Model 2	Model 3	Model 4	Model 5
Control Variables	Logit				
Constant	0.91**	0.75*	1.71***	0.54**	1.94**
	(2.967)	(2.476)	(3.81)	(2.63)	(2.66)
Tobin's Q	0.23607***	0.2141***		0.212039**	
	(22.084)	(20.58)		(20.284)	
ROE					0.31845***
					(30.968)
ROI			0.6662***		
			(45.94)		
LEV		-0.84955***		-0.2595***	
		(-14.335)		-21.512	
Beta Value	-0.8780***		-0.79199***	-1.0002***	
	(-23.11)		(-20.49)	(-24.869)	
Company size	0.3245***	0.2300***	0.26963***	0.239201.	0.2213*
	(26.62)	(20.160)	(32.02)	(20.074)	(25.074)
Government Held			-0.0018*		
			(-2.25)		
Foreign Holdings	0.0040131***				0.0068744***
	(8.077)				(12.939)
Employee Held				-0.005219***	
				(-2.657)	
Country Random Effects	Yes	Yes	Yes	Yes	Yes
Pseudo-R2	71.31%	59.95%	69.95%	75.32%	77.60%

Table 4. Direct effects on the probability to distribute dividends (socio-cultural variables)					
Variabile	Model 1	Model 2	Model 3	Model 4	Model 5
Socio-cultural Variables					
Catholic				1.11589*	0.61974*
				(2.79)	(1.814
Orthodox	-0.879.	-1.0531*			
	(-1.72)	(-2.10)			
UK law (Common law)	1.8013***		1.0377**		
	(4.64)		(2.84)		
Anti-Self Dealing Index				2.941064**	1.9552*
				(2.92)	(1.99)
Property Rights			0.0153***		
			(4.32)		
Corruption Perception Index	0.0535^.				
	(1.81)				
Business Freedom		0.011465**			
		(3.45)			
Economic growth volatility (5Y)			-0.2529**		-0.2748*
			(-2.61)		(-2.578)
Anti-Self Dealing Index*MC				0.540382***	
				(8.807)	
Business Freedom*LEV		0.00785***			
		(9.795)			
Orthodox*Tobin		-0.3087***			
		(-7.85)			
Tobin*Common	-0.2199***				
	(-13.30)				
ROE*Catholic					0.22007***
					(14.58)
Country Random Effects	Yes	Yes	Yes	Yes	Yes
Pseudo-R2	71.31%	59.95%	69.95%	75.32%	77.60%

Moreover, the models above show that there is a positive relationship between the probability to distribute dividends and the common law origin. With other words, the probability of paying dividends is lower in countries where the majority of population is Eastern Orthodox and this is higher in countries where a legal system with the origin in UK law is applied. In addition, the empirical results emphasize that in a less corrupt country there is a higher probability that companies will distribute dividends.

According to the OLS regressions, results presented in table 5 indicate some indirect associations between the probability of paying dividends and some socio-cultural factors (the estimated constants for each country resulted from logit-normal GLMM were used as dependent variables). Thus, it is interesting to observe that there might be indirect effects on the probability to distribute dividends coming from the ADI and from the volatility of the economic growth in the last 5 years. The variation of the random effects is explained in a small proportion by these factors, but this may indicate that there could be some indirect effects on the propensity to distribute dividends.

Table 5 shows the relationship between socio-cultural factors and random effects models generated by Logit Normal GLMMs presented in the table above. In order to regress the constants from M2 and M3, the variance matrix of the model's errors was multiplied by 1/Corruption Perception Index. We developed the Ramsey Reset Test which helped us to identify if the model is correctly specified and if we need a non-linear function which might explain better the association. We used "^" symbol where the exogenous variable is squared (Ramsey test

indicated the fact that there could be some problems with the model linearity. Standard Errors of the models are not autocorrelated and they are homoscedastic because they were corrected through HAC (heteroskedasticity autocorrelation consistent) Newey – West. The significance level is represented by " " for 10%, „ ." for 5%; * for 1%; ** for 0.1%; *** for 0%; t-statistic values are written in bracket.

Table 5. Indirect Effects on the probability to distribute dividends					
Variabile	Cons. M1	Cons. M2	Cons. M3	Cons. M4	Cons. M5
	OLS				
Catholic	-			-	-
Orthodox	-	-	-0.8923.		0.962275
			(-2.45)		(1.67)
UK law	-	-	-		
Anti-Self-Dealing Index	0.793990.	1.358***		-	-
	(2.890413)	(3.5426)			
Corruption Perception Index	-	-	0.005602^.	0.033433^*	0.032350^*
			(2.65)	(2.637)	(2.654)
Business Freedom				0.019335*	0.018562**
				(3.253925)	(3.147869)
Economic growth volatility (5Y)	-0.115792.	-0.15617.	-		-
	(-2.13)	(-2.4442)			
R2	2.95%	11.60%	2.26%	11.80%	11.50%
Adjusted R2	2.42%	10.22%	1.72%	10.18%	9.2%
Note: these results are from an OLS regression analysis in Eviews 8.1.					

In addition, our models highlight the strong association between religion and the probability of distributing dividends. Thus, in the countries where the predominant confession is Catholic the probability is higher than it is in the countries where more people have Eastern Orthodox confession. This aspect encourages us to continue the research study to identify if other religion confessions and denominations could be a determinant factor of the dividend policy. It could also be a good proxy for other socio-cultural features, i.e. for the confidence level of the population or for its optimism level.

The last model emphasizes the importance of the legal system, in terms of protection of minority shareholders, in relation to the probability of distributing dividends. In addition to other models, it highlights the significance of the interaction between Catholic confession and ROE. If the majority religion of the country is Catholicism, and if the company has a high return on equity, the probability of distributing dividends is even higher than in Eastern Orthodox countries (even if ROE is at the same level for both companies). Moreover, the Catholic denomination accentuates the positive effect of the financial return on the propensity to distribute dividends.

In the same time, the study shows that the probability to distribute dividends increases if the company's performance and its size increase. The positive association between the return on equity and dividend payout ratio different than 0 could be explained by the fact that the investors should be rewarded for a better performance of the company. On the other hand, the positive impact of company's size on the probability that company distributes dividends could be linked to the fact that bigger companies have lower investment opportunities and also higher potential external financing sources to be used in case they need to do some investments.

The volatility of company's shares and the company leverage decrease the propensity to distribute dividends. In case the shares have higher volatility, investors would have higher probability to increase their wealth through capital gains and therefore, dividend is not very important in this direction. Also, the negative association between company's leverage and the

probability to distribute dividends could be explained by the fact that cash is more needed to pay the loans.

Also, the results of the study prove that the "freedom of doing business" influences positively the probability to distribute dividends. Therefore, companies in those countries, where a company operates a lot easier, the probability of paying dividends is higher.

On the other hand, some factors have a negative influence on the probability of distributing dividends. For example, the volatility of the economic growth in the last 5 years and the volatility of company's shares. In the periods of instability, companies are tempted to hold the profits inside in order to cope in any worse situation.

In addition, this study highlights that in countries where minority shareholders protection is higher, companies are more likely to distribute dividends. It was analyzed using three proxies: common legal origin - which has been shown in the literature that is characterized by greater protection to shareholders, anti-self-dealing index and property rights index, both quantifying the protection of minority shareholders.

Corruption perception index was shown to be significant when analyzing the decision to distribute dividends. If the country is less corrupt, the companies that operate in that country are characterized by a higher probability to distribute dividends. Therefore, the shareholders of companies, activating in countries with higher levels of corruption, may benefit from other activities or may get an increase in their wealth coming from less legal actions.

This paper shows also that the ownership structure is a significant variable when we try to explain the probability of paying dividends. I found that there is a relatively small negative effect of the percentage held by the government and the percentage held by employees out of the total number of shares. On the other hand, there is a positive effect of the percentage held by foreign shareholders on the probability of paying dividends.

Moreover, some indirect effects of socio-cultural factors on dividend policy are highlighted under this work. The Eastern Orthodox denomination, the protection of minority shareholders and the corruption perception index might have indirect effects on the probability of distributing dividend, through the influence they have on the random effects (the estimated constant coefficient for each country using generalized linear fixed effects models).

5. Conclusion, Limitations and Next Steps

In recent years, the academic literature analyzes more and more the impact of social or cultural factors on the dividend payout decision. However, the following question is still valid: "Why do companies distribute dividends?". Through this work, I found a significant association between the propensity to distribute dividends and the following socio-cultural factors: religion, corruption, the freedom of doing business, the legal origin and the property rights. The purpose was to identify which are the most valid associations and then, in a further research, to focus more in one direction.

I highlighted some interesting and significant associations between culture and the corporate decision to distribute dividend, by using Logit-Normal Generalized Mixed Effects Models. The database is robust and significant from the statistical perspective. It contains 12,150 companies that operate in 83 countries in the period of 2009-2013. Some of the ideas emphasized in this study are not yet identified in the past literature on dividend payout decision – i.e. the influence of cultural values proxied by religion (i.e. Eastern Orthodox confession), corruption perception index, freedom of doing business, property rights.

This study demonstrates, once again, that the dividend payout decision worldwide is influenced by firm related factors (control variables) and, in the same time, by socio-cultural factors, which create a better ground for the decision of paying dividends. Thus, in terms of the firm related determinants, the conclusions are in line with the literature – i.e. performance indicators, leverage, shareholder structure and beta value do influence the decision of paying dividends. For example, the probability to distribute dividend is higher in overvalued companies. A possible

explanation might be the fact that the company wants to maintain their attractiveness among investors.

One of the main conclusions is the strong association between religion and the dividend policy. I demonstrated that in companies that operate in countries where the majority religion is Eastern Orthodox the probability to distribute dividends in lower than in other companies which activate in a more Catholic country. In other words, the Catholic denomination is a factor, which is in a positive association with the probability to distribute dividends. Therefore, it would be very interesting to take all religion denominations for a further research study on the dividend policy.

Therefore, shareholders who are looking to receive dividends, as remuneration of their investment, could use some practical suggestions from this study. Besides the classical financial indicators that could indicate a higher or a lower probability to distribute dividends, they could look also at socio-cultural aspects of the country where the company operates. They could choose to invest in companies which activate in Catholic countries rather than in Eastern Orthodox countries. Also, if they would want to have a higher likelihood to receive dividends, investors could decide to buy shares from companies activating in countries where the common legal origin has made its mark and where the "freedom of doing business" is also high.

This study examined the associations between socio-cultural factors and dividend policy mainly on the probability that the payout ratio is non-zero. However, the paper is subject to limitations, due to the following aspects. Firstly, some companies may decide to cease the dividend distribution in one year and then, they continue to distribute dividends, and more than that, they might grow the dividend payout ratio. This aspect was not considered in this paper. It can be investigated in a future study which could try to answer the question: "What is the probability that a company cease or begin to distribute dividends if it operates in a certain country?". Secondly, this work took into account several variables to determine the robustness of the association between different religions with the likelihood to distribute dividend. However, religion variable could be a proxy for another feature of the population, which was not taken into account in this study. Also, as a new direction, it would be relevant to take into account all religion denominations and confessions quantified through different variables (i.e. the percentage of each religion in that country). In addition, another idea would be to identify other factors for which religion could be chosen as a proxy (i.e. level of trust, level of happiness or optimism etc.)

There is still enough room for researchers to deepen this field to find other patterns that could leverage these associations between socio-cultural and dividend policy. In addition, a larger number of variables that characterize the dividend policy could be taken as dependent variable (i.e. dividend payout ratio/ the dividend per equity/ dividend per sales). Therefore, another direction could be to investigate which is the list of socio-cultural factors that determines the size of dividends payed out of the net earnings.

Also, in a future study some robustness checked could be performed (i.e. on multiple subsamples of the database, a split between developing and developed countries etc.). However, this study represents a significant basis for continuing this research, taking into consideration the high interest to determine the cultural or social factors, which influence significantly the decisions within companies.

This study may bring added value on the literature in the field by introducing Logit normal generalized linear mixed effects models to highlight associations and relationships between socio-cultural factors and the dividend policy. Thus, the results highlight the importance of culture in economic and financial decision-making processes, notably on the dividend payout decision. These socio-cultural factors might have an impact also on other important decisions within a company and even within a country.

Therefore, the frequently asked questions about the determinants of dividend policy can be explained through the legal origin, religion, corruption and freedom of doing business, but at the same time, they remain to be investigated in a further research.

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APPENDIX 1 - NUMBER OF COMPANIES BY COUNTRY

No.	Country	No. of companies	No.	Country	No. of companies
1	Argentina	90	42	Lithuania	198
2	Australia	189	43	Luxembourg	54
3	Austria	153	44	Macedonia	180
4	Bahrain	189	45	Malawi	37
5	Bangladesh	81	46	Malaysia	108
6	Belgium	171	47	Malta	117
7	Bosnia and Herzegovina	167	48	Mauritius	180
8	Botswana	39	49	Mexico	189
9	Brazil	171	50	Moldova	31
10	Bulgaria	81	51	Morocco	189
11	Canada	180	52	Namibia	72
12	Chile	171	53	Netherlands	189
13	China	289	54	New Zealand	162
14	Cote d'Ivoire	189	55	Norway	189
15	Croatia	171	56	Oman	171
16	Cyprus	144	57	Pakistan	180
17	Czech Republic	81	58	Peru	81
18	Denmark	162	59	Philippines	180
19	Egypt, Arab Rep.	198	60	Poland	162
20	Estonia	94	61	Portugal	180
21	Finland	180	62	Romania	40
22	France	167	63	Russia	178
23	Germany	180	64	Saudi Arabia	189
24	Ghana	144	65	Serbia and Montenegro	146
25	Greece	216	66	Slovakia	108
26	Hong Kong	216	67	Slovenia	63
27	Hungary	72	68	South Africa	62
28	Iceland	36	69	Spain	180
29	India	280	70	Sri Lanka	180
30	Indonesia	179	71	Sweden	162
31	Ireland	180	72	Switzerland	162
32	Israel	154	73	Tanzania	27
33	Italy	180	74	Thailand	189
34	Japan	180	75	Tunisia	99
35	Jordan	71	76	Turkey	180
36	Kazakhstan	207	77	Ukraine	153
37	Kenya	117	78	United Arab Emirates	170
38	Korea, Rep.	189	79	United Kingdom	171
39	Kuwait	153	80	USA	352
40	Latvia	162	81	Venezuela	63
41	Lebanon	36	82	Zambia	81
			83	Zimbabwe	35

Appendix 2 - The correlation matrix between the variables

The maximum level of correlation between variables introduced in the same model is maximum 30%. The name of each variable is presented as follows: Anti-Self Director Index- ASDI, Beta, Business Freedom – BF, Catholic confession – CATH, Civil Law– Civil, Creditor Rights Index – CRI, Common Law – Common, Employees Held – E_H, Financial Freedom_FF, Foreign Held _FH, Government Held_G_H, Corruption Perception Index_IPC, Franch Legal Origin_ FR_Law, common legal origin_UK_Law, leverage_LEV, log(GDP_capita) – ln(PIB/Capita), Eastern Orthodox confession - Orthodox, Economic Freedom – OS, Property Rights – PR, Return on Equity – ROE, Return on Investment– ROI, Tobin's Q – TQ şi Economic growth volatility in the last 5 years – Vo_cr_ec_5

Corelaţii	1 ASDI	2 Beta	3 BF	4 CATH	5 Civil	6 CRI	7 Common	8 E_H	9 FF	10 FH	11 G_H	12 IPC	13 FR_Law	14 UK_Law	15 LEV	16 ln(PIB cap)	17 ln(tot_ass_s)	18 ln(tot_debt_sid)	19 LOGIT IM	20 MUSL DOX	21 ORTO DOX	22 OS	23 PR	24 ROE	25 ROI	26 TQ	27 Vol_cr ec_5
1	1.00																										
2	0.24	1.00																									
3	0.22	0.14	1.00																								
4	-0.21	0.10	0.16	1.00																							
5	-0.42	0.02	-0.01	0.27	1.00																						
6	0.36	-0.04	0.15	-0.07	-0.23	1.00																					
7	0.56	0.06	0.07	-0.07	-0.77	0.32	1.00																				
8	0.10	0.10	0.17	0.10	-0.03	0.01	0.19	1.00																			
9	0.30	0.17	0.68	0.36	-0.06	0.25	0.21	0.18	1.00																		
10	0.12	0.16	0.02	0.12	0.16	0.02	-0.06	0.19	0.11	1.00																	
11	0.09	0.06	0.05	0.11	0.03	-0.01	0.06	0.19	0.10	0.49	1.00																
12	0.24	0.22	0.74	0.26	0.04	0.24	0.14	0.21	0.78	0.12	0.07	1.00															
13	-0.35	-0.03	-0.28	0.11	0.62	-0.44	-0.40	-0.05	-0.29	0.07	0.02	-0.37	1.00														
14	0.58	-0.01	0.12	-0.28	0.79	0.36	0.77	0.06	0.15	-0.13	-0.02	0.07	-0.57	1.00													
15	0.09	0.04	0.00	0.00	-0.01	0.00	0.01	0.02	0.00	-0.02	-0.05	0.00	0.00	0.01	1.00												
16	0.05	-0.24	0.59	0.38	0.24	0.29	-0.07	0.16	0.58	0.19	0.10	0.69	-0.11	-0.12	0.00	1.00											
17	0.00	0.12	0.00	0.00	0.00	0.00	-0.01	-0.04	0.00	0.07	0.03	0.00	0.00	0.00	-0.01	0.01	1.00										
18	0.20	0.36	-0.01	0.02	0.09	0.16	0.01	0.00	0.03	0.10	0.02	0.04	-0.08	0.00	0.04	0.07	0.38	1.00									
19	0.11	-0.03	0.06	0.01	-0.06	0.06	0.09	0.00	0.09	-0.04	-0.03	0.12	-0.03	0.07	-0.10	0.03	-0.05	-0.25	1.00								
20	-0.03	-0.20	-0.18	-0.45	-0.27	-0.12	-0.21	-0.12	-0.39	-0.19	-0.12	-0.37	0.28	0.03	0.00	-0.38	0.00	-0.10	-0.09	1.00							
21	-0.16	-0.06	-0.20	-0.26	0.23	-0.12	-0.17	-0.02	-0.26	0.05	0.06	-0.27	0.28	-0.28	0.00	-0.09	0.00	-0.15	-0.08	-0.15	1.00						
22	0.37	0.16	0.77	0.26	-0.13	0.28	0.26	0.18	0.87	0.11	0.11	0.85	-0.38	0.23	0.00	0.62	0.09	0.08	-0.08	-0.26	-0.23	1.00					
23	0.23	0.23	0.75	0.22	0.02	0.21	0.18	0.22	0.82	0.14	0.09	0.95	-0.34	0.10	0.00	0.67	0.00	0.18	0.12	-0.39	-0.33	0.88	1.00				
24	0.07	0.06	-0.04	-0.05	-0.08	0.02	0.07	-0.01	0.01	0.00	0.00	-0.02	-0.01	0.09	-0.08	-0.07	-0.13	0.10	0.26	0.05	0.08	-0.02	-0.02	1.00			
25	0.09	-0.18	0.00	0.00	0.01	0.00	0.00	0.02	0.00	0.01	0.05	0.03	0.01	-0.01	-0.23	-0.01	-0.24	-0.09	0.15	0.00	0.00	0.01	0.00	0.66	1.00		
26	0.11	-0.03	-0.12	-0.14	0.15	0.00	0.09	0.00	-0.07	-0.01	0.03	-0.11	-0.01	0.11	-0.03	-0.16	-0.40	0.01	0.07	0.10	0.00	-0.06	-0.11	0.36	0.42	1.00	
27	-0.07	-0.26	-0.31	-0.25	0.19	0.02	-0.29	-0.07	-0.33	0.01	0.05	-0.42	0.28	-0.14	0.00	-0.16	0.00	-0.12	-0.21	0.15	0.51	-0.35	-0.44	-0.19	0.02	0.00	1.00