

The relevance of national culture to policy uncertainty and firm performance: European evidence.

Abstract

Purpose – The purpose of this study is to investigate the impact of policy uncertainty (PU) on firm performance and to examine how the different cultural societies deal with the policy-induced uncertainty.

Design/methodology/approach – We use data of European non-financial firms to extend the growing literature on policy uncertainty, firm performance, and national culture. We consider financial as well as market proxies to measure firm performance and use Hofstede's cultural dimensions as a proxy for national culture. We apply the Generalized Method of Moments (GMM-System) regression technique on a dataset of 702 non-financial European firms, listed during the period from 2002 to 2018.

Findings – We find overwhelming evidence that policy uncertainty reduces the performance of the European firms; however, cultural differences among different European countries moderate the impact of policy uncertainty on the financial as well as the market performance of the firms. Our results show that European cultures with high power distance, individualism, masculinity, and indulgence efficiently deal with the economic policy uncertainty. While the European societies with high uncertainty avoidance fail to cope with policy-induced uncertainty. Our results are robust to different regression models, alternate proxies of firm performance, and endogeneity issues.

Practical implications – The authors argue that policy uncertainty increases information asymmetry and decreases firm performance, therefore, the policymakers shall be considerate of the consequences of their policy-induced uncertainty in the society and business arena that would not only adversely affect the firms but also the economy.

Originality/value – To the best of the authors' knowledge, this is the first study that investigates the role of national culture on the relationship between policy uncertainty and firm performance in the European context.

Keywords: Policy uncertainty, firm performance, national culture, Hofstede, Europe, panel data.

Paper type: Research paper

1. Introduction

Economic policy uncertainty (PU) increases information asymmetry, volatility in corporate future cash flows (Zhang, Han, Pan, & Huang, 2015), and cost of financing (Brogaard & Detzel, 2015) that disturbs corporate investments (Gulen & Ion, 2015) affecting not only corporate strategic positioning (Mirza & Ahsan, 2020) but also accounting as well as market-based corporate financial performance (Ahsan & Qureshi, 2021). The literature posits PU as a part of the corporate ecosystem to investigate its interplay with corporate decision making (Ahsan & Qureshi, 2021; Végazonès-Varoudakis & Nguyen, 2018) to determine firm performance (FP). A substantial volume of empirical studies investigated the impact of PU on corporate decision making (Ahsan, Al-GAMRH, & Mirza, 2021; Ahsan & Qureshi, 2021; Bonaime, Gulen, & Ion, 2018; Chu & Fang, 2020; Demir & Ersan, 2017; Tajaddini & Gholipour, 2020; Wu, Kong, Wu, & Zhang, 2020) as well as the impact of culture on financial decisions (Chang & Noorbakhsh, 2009; Chui, Kwok, & Zhou, 2016; Chui, Lloyd, & Kwok, 2002) and firm value (Qureshi & Ahsan, 2022). However, the literature overlooks the cultural context while investigating the impact of policy uncertainty on corporate decision-making (Galariotis & Karagiannis, 2021).

Even though with increasing globalization, firms are shifting towards a new institutional context consisting of common international practices, nevertheless, national patterns of financing and corporate governance are still distinct (Deeg, 2009). Cultures shape economies (Zelizer, 2010), and claims about the collective distinction of cultural values have become a terrain of national and international politics (Brandtstädter, Wade, & Woodward, 2011). Recent empirical evidence indicates that policy uncertainty may be interrelated with the national culture and these interrelations may affect financial decision making (Galariotis & Karagiannis, 2021). Accordingly, we postulate that country culture shapes the contours of the corporate ecosystem and moderates PU-FP nexus, however, we do not find any significant study investigating the PU-FP relationship in cultural context.

To fill this gap, this study uses the data of 702 firms listed in nine European countries¹ during 2002-2018, and for which a relatively new Economic Policy Uncertainty index² and Hofstede's cultural dimensions are available and applies Generalized Method of Moments (GMM System) to investigate the moderating impact of Hofstede's cultural dimensions on the relationship between PU and FP. Based on our results, we contribute to the literature in the following

¹ France, Germany, Greece, Ireland, Italy, Netherlands, Spain, Sweden, and the United Kingdom.

² News based Economic Policy Uncertainty index developed by Baker et al. (2016).

aspects. First, supporting *real options theory*, we find that PU increases information asymmetry, therefore, European firms follow a wait-and see strategy by delaying their investments and consequently, it reduces their performance. Second, we observe that different cultural attributes handle PU differently to mitigate its negative impact on FP. Third, we find that the European cultures with high power distance having centralized decision making provide them a direction to effectively deal with policy-induced uncertainty. Fourth, we observe that individualistic and masculine European societies being over-confident and ambitious proactively deal with the dynamic operating environment following the *theory of strategic growth options* by seizing the investments opportunities. Fifth, we observe that the culture with high uncertainty avoidance fails to deal with policy-induced uncertainty while the cultures with long-term orientation partially mitigate its negative impact. Lastly, we observe that cultures with high indulgence being more innovative also deal efficiently with the policy-induced uncertainty. These results are robust to different regression models, alternate proxies of firm performance, and endogeneity issues. These findings can have significant implications for government policymakers, investors, and corporate managers.

The structure of the rest of the study is as follows. The next section develops hypotheses about the PU-FP relationship and the impact of Hofstede's cultural dimensions on the PU-FP relationship based on prior literature. Section 3 explains the data, variables, and methodology. Section 4 presents and discusses empirical findings. Section 5 provides the conclusion and policy implications. References are provided at the end.

2. Theoretical framework

2.1. *Economic policy uncertainty (PU) and firm performance (FP)*

Uncertainty is defined as the inability to predict the likelihood of future events (Kinght, 1921). According to the *real options theory*, when facing high uncertainty, firms prefer to wait and see rather make riskier investment decisions (Bloom, Bond, & Van Reenen, 2007). On the other hand, the *theory of strategic growth options* implies that delaying investments by the firms generates immediate investment opportunities for the competitors (Kulatilaka & Perotti, 1998). Ever since its introduction, the news-based Economic Policy Uncertainty index (PU) has been deemed as a proxy for policy uncertainty (Baker, Bloom, & Davis, 2016) and a significant number of empirical studies have used this index to investigate the impact of PU on economic activities (Ahsan et al., 2021; Ahsan & Qureshi, 2021; Bonaime et al., 2018; Chu & Fang, 2020;

Gulen & Ion, 2015; Liu & Wang, 2022; Tajaddini & Gholipour, 2020; Wang, Chen, & Huang, 2014; Yuan, Wu, Qin, & Xu, 2022).

Most of the empirical studies investigating the impact of PU on different dimensions of firm behavior find results in favor of *real options theory*. Such as Gulen and Ion (2015), investigate the impact of PU on corporate investments and conclude that high policy uncertainty increases information asymmetry and decreases corporate investment in the US. Wang et al. (2014) find the same for the Chinese non-financial firms. Demir and Ersan (2017) explain that the firms operating in BRIC countries prefer to increase cash holdings while facing high PU. Istiak and Serletis (2018) observe that policy-related uncertainty affects real economic activities in G7 countries. Montes and Nogueira (2021) observed that economic and political uncertainty decreases the confidence of Brazilian firms and reduces their investments. Chu and Fang (2020) find that PU decreases the labor investments of Chinese firms. Mirza and Ahsan (2020) conclude that policy uncertainty increases the market, as well as the business risk of the Chinese firms, and a recent study in the European context, reveals that PU decreases the performance of European firms (Ahsan & Qureshi, 2021). The above-mentioned empirical evidence concludes that policy uncertainty increases information asymmetry, corporate risk, cost of capital and ultimately decreases corporate investments and firm performance. Considering the objective and the scope of this study, *real options theory*, and the recent empirical evidence, we develop our first hypothesis as under:

H1: Economic policy uncertainty decreases the performance of European firms.

2.2. Hofstede's cultural dimensions, PU and FP

One can find a variety of frameworks defining national culture, however, Hofstede's cultural framework has been the most prominent in the literature since its introduction (Gaganis, Hasan, Papadimitri, & Tasiou, 2019; Galariotis & Karagiannis, 2021; Hofstede, 1984; Jones & Davis, 2000; Perlitz & Seger, 2004). Hofstede (1984) defines culture as "the *collective programming of the mind*" and distinguishes societies based on six dimensions i.e., power distance (PDI), individualism (IDV), masculinity (MAS), uncertainty avoidance (UAI), long-term orientation (LTO), and indulgence (IVR) (Minkov, Blagoev, & Hofstede, 2013). Hofstede argues that managerial decision making is culturally dependent (Hofstede, 1983) and the literature also confirms the relationship between policy uncertainty, financial decisions, and corporate strategies (Ahsan et al., 2021; Demir & Ersan, 2017; Iqbal, Gan, & Nadeem, 2019; Liu & Wang,

2022; Mirza & Ahsan, 2020), therefore, we hypothesize that cultural differences among different European societies may moderate the relationship between PU and FP.

Power distance shows the degree of inequality acceptance in a society (Hofstede, 2001). A higher score on this dimension explains that the society accepts inequalities more easily as compared to the societies with a lower score. Cultures with low power distance do not accept the status quo, therefore, the managers in such cultures are expected to have risk-taking behavior (Gaganis et al., 2019). According to Kreiser, Marino, Dickson, and Weaver (2010), managers in high PDI cultures accept the status quo easily, generally depict a risk-averse behavior, and are more willing to follow a defensive business strategy. A recent study using the news-based policy uncertainty index explains that a defensive business strategy positively moderates the negative impact of policy-induced uncertainty on corporate growth (Ahsan et al., 2021). Accordingly, we develop our second hypothesis as under:

H2: Cultures with high power distance positively moderate the impact of economic policy uncertainty on the performance of European firms.

Individualism shows the degree of priority given to individual achievements (Hofstede, 1984). A higher score on this dimension depicts autonomous and self-oriented societies and a lower score represents collectivist societies emphasizing collective achievements over individual success (Hofstede, 1984). Empirical evidence links individualism with overconfidence and accordingly to risk-taking behavior (Adam, Fernando, & Golubeva, 2015; Gaganis et al., 2019; Malmendier & Tate, 2005). Further, masculinity shows a preference for heroism, achievement, and material success (Hofstede, 1984). Individuals with masculine attributes tend to be aggressive, competitive, and ambitious as compared to individuals with feminine attributes (Blodgett, Lu, Rose, & Vitell, 2001). Empirical evidence supporting *real options theory* shows that due to policy-induced uncertainty managers tend to withhold investments considering investment irreversibility, and consequently reducing the firm growth (Bernanke, 1983). However, the *theory of strategic growth options* implies that PU also provides new investment opportunities for the firms that would positively contribute to the growth and financial performance of the firms whose managers are willing to take the risk (Kinght, 1921). Accordingly, managers in high individualistic and masculine societies being self-oriented, ambitious, and overconfident may try to seize investment opportunities provided during

uncertain times and may bring growth and profit (Ahsan et al., 2021). Based on the above arguments, we develop our third and fourth hypotheses as under:

H3: Cultures with high individualism positively moderate the impact of economic policy uncertainty on the performance of European firms.

H4: Cultures with high masculinity positively moderate the impact of economic policy uncertainty on the performance of European firms.

Uncertainty avoidance refers to the extent to which individuals avoid ambiguous situations (Hofstede, 1984). A higher score on this dimension depicts societies with a stronger desire to develop rules, follow a predicted behavior, and take moderate risks (Miska, Szócs, & Schiffinger, 2018). On the other hand, a lower score on the same depicts societies that are open to change. Kreiser et al. (2010) observe risk-averse behavior in high uncertainty avoidance cultures. As policy-induced uncertainty increases information asymmetry and creates ambiguity about the future, therefore, risk-averse managers in high uncertainty avoidance societies may tend to follow a wait-and-see strategy affecting the performance of such firms. Accordingly, we develop our fifth hypothesis as under:

H5: Cultures with high uncertainty avoidance negatively moderate the impact of economic policy uncertainty on the performance of European firms.

Long-term orientation refers to the degree to which a society encourages a future-oriented behavior such as forecasting future trends and developing long-term plans (Hofstede, 1984). In societies with a long-term orientation, people tend to be thrifty and pragmatic and view circumstantial problem solving as a necessity. In contrast, the people in short-term-oriented cultures adhere to traditions, and persistence is valued, and they tend to place more emphasis on principles and truth (Hofstede, 2001; Miska et al., 2018). Further, indulgence refers to the degree of freedom that societal norms provide to the citizens in fulfilling their human desires. A high indulgence society enables fulfillment of human needs and desires related to enjoying life and having fun, whereas its counterpart restraint society controls, the gratification of needs, and regulates it employing strict social norms (Minkov et al., 2013). The people in high IVR societies enjoy flexible work hours and value the balance between work and social life, and material rewards may not easily motivate them. In contrast, the people in low IVR societies expect material rewards for a job done well, and stricter social and corporate norms restrain

them to behave in a more rigid and controlled way. As such, we expect societies and people in high LTO and high IVR countries to be more innovative, proactive, and open to change, and the firms are likely to comprehend policy-induced uncertainty and respond proactively to mitigate its negative impact. Accordingly, we develop the following hypotheses:

H6: Cultures with long-term orientation positively moderate the impact of economic policy uncertainty on the performance of European firms.

H7: Cultures with high indulgence positively moderate the impact of economic policy uncertainty on the performance of European firms.

3. Data, variables, and methodology

3.1. Data and variables

Firm-level data has been collected using the Thomson Reuters Eikon database as it provides sufficient data of non-financial listed European firms, and it is widely used by research studies in European as well as international contexts (Ahsan & Qureshi, 2021; Broadstock, Matousek, Meyer, & Tzeremes, 2020; Qureshi, Kirkerud, Theresa, & Ahsan, 2020). Next, we make use of a news-based economic policy uncertainty (PU)³ index recently used by many significant empirical studies in financial economics (Ahsan & Qureshi, 2021; Dash, Maitra, Debata, & Mahakud, 2019; Iqbal et al., 2019; Mirza & Ahsan, 2020; Montes & Nogueira, 2021; Yung & Root, 2019; Zhu, Wu, He, & He, 2021). We use the following criteria for the selection of the sample firms: First, we include non-financial listed firms. Second, we include firms headquartered in only those European countries for which a news-based economic policy uncertainty index is available during the sample period. Third, we include the firms from those European countries for which Hofstede's cultural dimensions are available. Fourth, we include the firms with non-missing values for the required variables. After all the filters, we finalize a dataset of 702 firms producing 7,059 firm-year observations during the period from 2002 to 2018 from nine European countries⁴.

Firm performance is our dependent variable, and we measure it using three proxies i.e., return on total assets (RTA), return on total equity (RTE), and Tobin's Q ratio (TBQ). We measure policy uncertainty (PU) by taking the natural logarithm of the news-based economic policy uncertainty index developed by Baker et al. (2016). To investigate the impact of culture on the PU-FP

³ <https://www.policyuncertainty.com/index.html>

⁴ France, Germany, Greece, Ireland, Italy, Netherlands, Spain, Sweden, and the United Kingdom.

relationship, we classify Hofstede's cultural dimensions into high and low categories using dummy variables i.e., dummy 1 for a high median value on a cultural dimension and 0 otherwise. Following similar empirical studies (Ahsan et al., 2021; Ahsan & Qureshi, 2021; Chu & Fang, 2020; Iqbal et al., 2019; Mirza & Ahsan, 2020; Wang et al., 2014), we take several firm-level control variables that may affect firm performance such as firm size (STA, STS), leverage (TBL), growth (AGR, SGR), tangibility (TAN), liquidity (LQT), and sustainability performance (ESG). We also take inflation (INF) and GDP growth (GDP) to control the economic development of a country. We present the variables included in the study in Table 1.

[Insert Table 1 Here]

3.2. Methodology

We develop our baseline econometric equation to investigate the impact of economic policy uncertainty (PU) on the performance (FP) of the European firms (H1), and present our baseline equation as under:

$$FP_{it} = \beta_0 + \beta_1 FP_{i,t-1} + \beta_2 PU_{jt} + \beta_3 Cont_{it} + Cr_t + \mu_{jt} + \varepsilon_{it} \quad (1)$$

where FP_{it} represents one of the three different measures of corporate performance (RTA_{it} , RTE_{it} , TBQ_{it}) of firm i at time t . PU_{jt} represents an index based measure of economic policy uncertainty of country j at time t , $Cont_{it}$ are firm-level control variables (explained in table 1) of firm i at time t , Cr_t is a dummy variable to control for the impact of the global financial crisis of 2007-08 (Dummy 1 for 2007 and 2008; 0 otherwise), μ_{jt} is country fixed effects, and ε_{it} is the error term for firm i at time t .

We extend our baseline equation to investigate the moderating impact of Hofstede's cultural dimensions on the relationship between economic policy uncertainty and corporate performance (H2-H7). We present equation 2 as under:

$$FP_{it} = \beta_0 + \beta_1 FP_{i,t-1} + \beta_2 PU_{jt} + \beta_3 Cul_{jt} + \beta_4 PU_{jt} * Cul_{jt} + \beta_5 Cont_{it} + Cr_t + \mu_{jt} + \varepsilon_{it} \quad (2)$$

Where Cul_{jt} represents one of the six cultural dimensions (dummy 1 for high than the median value of each of the six dimensions and 0 otherwise) explained in Table 1. $PU_{jt} * Cul_{jt}$ is interaction term of PU_{jt} with one of the six dummy variables representing

Hofstede's cultural dimensions. Other variables are the same as explained in equation 1.

To control for a possible endogeneity due to the expected bidirectional relationships between firm-performance and firm-level control variables such as firm size, leverage, and growth, as well as cultural dimensions, we apply the generalized method of moments (GMM System) while taking one-year lagged dependent, firm size, leverage, and growth as endogenous variables (Ahsan & Qureshi, 2021; Baltagi, 2008; Roodman, 2009).

4. Results and discussion

4.1. Descriptive statistics

Table 2 (Panel A) presents summary statistics of our dependent (*FP*), explanatory (*PU*), and firm and country-level control variables for the sample dataset collected for 702 firms from 9 European countries. The mean value of 0.071 for *RTA* with a standard deviation of 0.104, and a mean value of 0.184 for *RTE* with a standard deviation of 0.588 indicate significant variations in the financial performance of the sampled European firms. The mean value of 1.168 for *TBQ* with a standard deviation of 1.356, suggests that the market responds to the variations in the accounting-based financial performance of the sampled firms. The mean value of 8.590 with a median of 8.557 for *STA* and the mean value of 8.340 with a median of 8.254 for *STS* explain that almost half of the firms in our sample are of average size. The mean value of 0.633 for leverage (*TBL*) explains that on average more than 63 percent of the assets of the sampled European firms are backed by debt financing. The mean value of 0.089 and 0.066 with a standard deviation of 0.355 and 0.213 for *AGR* and *SGR* explain a good but volatile growth in assets as well as sales of these firms. The mean value of 0.522 for *TAN* indicates that on average more than half of the assets of the sampled European firms consist of tangible assets. The mean value of 1.530 with a standard deviation of 1.320 for *LQT* explains the high and volatile liquidity of these firms.

Further, the mean value of 4.972 with a standard deviation of 0.536 for the natural logarithm of *PU* for the complete dataset and mean values for country *PU* (Panel B) ranging from 4.494 (Netherlands) to 5.307 (United Kingdom) explain a high policy uncertainty in sampled European countries during 2002 to 2018.

Panel C of Table 2 presents the score of Hofstede's cultural dimensions for the sampled countries, and we observe significant variations between the different European countries for

different cultural dimensions. We observe that power distance is comparatively higher in France, Greece, Spain, and Italy while individualism is higher in the United Kingdom, Netherlands, Italy, France, and Sweden. Further, we observe comparatively higher masculinity in Italy, Ireland, Germany, and the United Kingdom while a comparatively higher uncertainty avoidance in Greece, France, Spain, and Italy. Furthermore, we observe that Germany, Netherlands, France, and Italy have cultures with higher long-term orientation while Sweden, the United Kingdom, Netherlands, and Ireland and cultures with higher indulgence.

[Insert Table 2 Here]

4.2. Correlation analysis

Table 3 presents the results of the pairwise correlation of corporate financial and market performance with Hofstede's cultural dimensions and economic policy uncertainty. We find a highly significant negative correlation of *PU* with corporate financial performance (*RTA*, *RTE*) of the European firms, and a negative but insignificant correlation of *PU* with market-based financial performance (*TBQ*). Further, we observe some significant correlations between cultural dimensions such as -0.860^* between *D_High_IVR* and *D_High_UAI* and 0.617^* between *D_High_IVR* and *D_High_IDV*. However, we introduce cultural dimensions one by one in different regression models, therefore, these high correlations do not create multicollinearity issues. For the firm-level control variables, we observe the highest correlation of 0.544^* between *ESG* and firm size. We check variation inflation factors (VIF) of our regression models and do not find any value greater than 10, confirming that our regression results do not suffer from multicollinearity issues (Baltagi, 2008).

[Insert Table 3 Here]

4.3. Regression results

Table 4 presents the results of a dynamic regression analysis (Generalized Method of Moments - GMM System) for equation 1 carried out to investigate the impact of *PU* on accounting-based (*RTA*, *RTE*) as well as market-based financial performance (*TBQ*) of the European firms. We observe a highly significant negative impact of *PU* on accounting-based as well as the market-based financial performance of the European firms, favoring hypothesis 1, supporting *real options theory*, and confirming the results of previous studies in Europe (Ahsan & Qureshi, 2021) and international (Iqbal et al., 2019) context. The estimated coefficients show that the destructive impact of *PU* is higher on market performance ($TBQ = -0.168^{***}$) as compared to

accounting performance ($RTA = -0.017^{***}$, $RTE = -0.063^{***}$). These coefficients also show that a one percent increase in the news-based policy uncertainty index decreases the market performance of the European firms by 0.168, return on assets by 0.017 and return on equity by 0.063. These results explain that uncertainty about economic policies increases information asymmetry for investors and managers and consequently, increases cost and risk for the firms. Higher risk and increased cost of capital would plausibly reduce the expected future cash flows and consequently, the firms may reduce their investments exacerbating the negative impact on their future financial performance.

[Insert Table 4 Here]

Tables 5, 6, and 7 present the results of dynamic regression analysis (GMM System) for equation 2, wherein we add dummy interaction of Hofstede's cultural dimensions with PU to investigate the moderating impact of national culture on the relationship between PU and FP . In Tables 5, 6, and 7, we measure FP with return on assets (RTA), return on equity (RTE), and Tobin's Q (TBQ) respectively. In each of the six models for six dimensions of country culture, we include firm-level control variables, economic policy uncertainty (PU), and a dummy interaction of respective cultural dimensions with economic policy uncertainty. For Model 1 (Table 5, 6, 7) we find a significant negative association of PU and a significant positive association of dummy interaction of power distance (D_High_PDI*PU) with firm performance (RTA , RTE , TBQ). The negative PU - FP association explains that an increase in policy-induced uncertainty decreases the financial as well as the market performance of the European firms. However, the positive association of FP with dummy interaction of power distance and PU suggests that European culture with higher power distance (France, Greece, Spain, and Italy) positively moderates the destructing impact of policy-induced uncertainty on the performance of the European firms (H2). The plausible reason may be that in France, Greece, Spain, and Italy the high PDI promotes risk-averse behavior, and the risk aversion in managerial decision making helps cautiously navigate the policy-induced uncertainty to mitigate its potentially harmful impact on corporate financial performance.

The results of Model 2, and 3 (Table 5, 6, 7) indicate a significant negative association of PU and significant positive associations of dummy interaction of D_High_IDV*PU as well as of D_High_MAS*PU with FP (RTA , RTE , TBQ). These positive associations of dummy interactions

explain that highly individualistic (United Kingdom, Netherlands, Italy, France, and Sweden) as well as highly masculine (Italy, Ireland, United Kingdom, and Germany) European culture positively moderates the destructing impact of policy uncertainty on financial and market performance of the European firms (H3, and H4). These results favor the *theory of strategic growth options* and indicate that the pro-active and self-oriented managers in high individualistic societies (United Kingdom, Netherlands, Italy, France, and Sweden), and ambitious, and overconfident managers in masculine societies (Italy, Ireland, the United Kingdom, and Germany) try to seize the scarce value additive investment opportunities provided during uncertain times to bring growth and profit for their firms.

Further, in Model 4 (Table 5, 6, 7), we observe a significant negative association of *PU* as well as dummy interaction of uncertainty avoidance (*D_High_UAI*PU*) with firm performance (*RTA*, *RTE*, *TBQ*), explaining that the European culture with high uncertainty avoidance does not moderate the destructing impact of policy uncertainty on firm performance (H5). The reason is straight that societies (Greece, Spain, France, and Italy) avoiding uncertain conditions fail to cope with the demands of changing operating conditions.

In Model 5 (Table 5, 6, 7) we observe a negative association of dummy interaction of long-term orientation (*D_High_LTO*PU*) with corporate financial as well as market performance (*RTA*, *RTE*, *TBQ*). Although, this negative association is against our expectations (H6) and indicates that the European culture (Germany, Netherlands, France, and Italy) with long-term orientation fails to moderate the negative impact of policy uncertainty on corporate financial performance. However, the coefficients of *PU* (*RTA* = -0.016***, *RTE* = -0.054***, *TBQ* = -0.154***) and *D_High_LTO*PU* (*RTA* = -0.008***, *RTE* = -0.049***, *TBQ* = -0.129***) indicate that long-term orientation of German, Dutch, French, and Italian societies partially help them deal with policy-induced uncertainty due to their strategic orientation.

In Model 6 (Table 5, 6, 7) we find a significant negative association of *PU* and a significant positive association of indulgence-policy uncertainty dummy interaction with corporate performance (*RTA*, *RTE*, *TBQ*), explaining that the European culture (Sweden, the United Kingdom, Netherlands, and Ireland) with high indulgence positively moderates the negative impact of policy uncertainty on firm financial as well as the market performance of the European firms, supporting hypothesis 7. This positive association of *D_High_IVR*PU* indicate

that Swedish, English, Dutch, and Irish societies being innovative, and proactive successfully deal with the dynamic operating environment by continuously adjusting themselves with the changing economic policies.

[Insert Tables 5, 6, and 7 Here]

4.4. Additional analysis

Tables 8, 9 and 10 presents the results of additional analysis. In this analysis, we control all our regression models for an additional firm and country-level variables. We include firm size measured as the natural logarithm of total sales (*STS*), firm growth measured as annual percentage sales growth (*SGR*), and sustainability performance (*ESG*). We also include inflation (*INF*) and economic growth (*GDP*) and run the analysis again. We observe the same negative impact of *PU*, positive impact of interaction term of power distance (*D_High_PDI*PU*), individualism (*D_High_IDV*PU*), masculinity (*D_High_MAS*PU*), and indulgence (*D_High_IVR*PU*), and negative association of interaction term of uncertainty avoidance (*D_High_UAI*PU*) and long-term orientation (*D_High_LTO*PU*) with firm performance, validating previous results.

[Insert Tables 8, 9, and 10 Here]

5. Conclusions and Policy Implications

This study posits that country culture shapes the individual, as well as institutional decision making and consequently, may have implications for PU-FP nexus. The investigation of this otherwise ignored aspect is the contribution to the literature. The results of the investigation suggest that country culture is a relevant premise to investigate PU-FP nexus. Based on the results we provide two conclusions that have policy implications. First, economic policy uncertainty increases not only the information asymmetry but also the operational and financial risk for the firms leading to three potential outcomes. One, the investors expect reduced future cash flows of the firms and consequently demand a higher cost of their capital suppressing the financial performance of the firms. Two, anticipating the operational and financial risks as well as investors' actions the managers tend to reduce their investments exacerbating the negative impact of policy uncertainty on the financial as well as market performance.

Second, different country cultures respond differently to mitigate the negative impact of the policy uncertainty prevalent in the corporate ecosystem because the country culture shapes

the individual as well as institutional behavior. The risk-averse behavior in high PDI cultures to navigate PU induced stormy conditions, a proactive and self-oriented behavior in high IDV cultures to identify and seize rare but value additive investment opportunities, a reward-seeking high ambitious behavior inspired by high masculinity cultures to effectively manage the business processes, and flexibility and work-life-balance encouraged in high indulgence cultures to bring out best of the organizational resources including human resources positively moderate the negative impact of economic policy uncertainty on the performance of the European firms. Third, even though high LTO European culture was expected to help improve corporate performance, however, quite counterintuitively long-term orientation does not help significantly to mitigate the negative impact of PU on the performance of European firms plausibly indicating the need for further research on this aspect.

These conclusions have some policy implications. First, the policymakers shall be considerate of the adverse consequences of their policy-induced uncertainty in the society especially the business arena that would not only adversely affect the firms and their investments but also the economy and the households. Second, along with other considerations, the investors shall be considerate of the country's culture while placing their investment capital, especially in PU-induced stormy conditions. The second conclusion may also help the corporate managers to shape their organizational culture as a robust and vibrant system that can demonstrate resilience under policy-induced uncertainty in the corporate ecosystem.

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Table 1: Description of variables

Variable level	Variable name	Model name	Proxy	Source
Dependent	Return on Assets	<i>RTA</i>	Net profit before tax / Total assets	Eikon
	Return on Equity	<i>RTE</i>	Net profit before tax / Total equity	Eikon
	Tobin's Q	<i>TBQ</i>	Total market value / Total assets	Eikon
Explanatory	Policy Uncertainty	<i>PU</i>	Natural logarithm of news-based Economic Policy Uncertainty Index	Economic Policy Uncertainty website ¹
Moderating	Power Distance	<i>D_High_PDI</i>	Dummy 1 for a high median value of power distance index and 0 otherwise.	Hofstede Insights ²
	Individualism	<i>D_High_IDV</i>	Dummy 1 for a high median value of individualism and 0 otherwise.	Hofstede Insights
	Masculinity	<i>D_High_MAS</i>	Dummy 1 for a high median value of masculinity and 0 otherwise.	Hofstede Insights
	Uncertainty Avoidance	<i>D_High_UAI</i>	Dummy 1 for a high median value of uncertainty avoidance and 0 otherwise.	Hofstede Insights
	Long-term Orientation	<i>D_High_LTO</i>	Dummy 1 for a high median value of long-term orientation and 0 otherwise.	Hofstede Insights
	Indulgence	<i>D_High_IVR</i>	Dummy 1 for a high median value of indulgence and 0 otherwise.	Hofstede Insights
Control	Firm Size	<i>STA</i>	Ln (Total Assets)	Eikon
		<i>STS</i>	Ln (Total Sales)	Eikon
	Leverage	<i>TBL</i>	Total Liabilities / Total Assets	Eikon
	Growth	<i>AGR</i>	% Change in Total Assets	Eikon
		<i>SGR</i>	% Change in Total Sales	Eikon
	Tangibility	<i>TAN</i>	Tangible Assets / Total Assets	Eikon
	Liquidity	<i>LQT</i>	Current Assets / Current Liabilities	Eikon
	Sustainability Performance	<i>ESG</i>	Thomson Reuters combined score for sustainability (environmental, social, governance) performance	Eikon
	Inflation rate	<i>INF</i>	Consumer prices (annual %)	World Bank ³
	Economic growth	<i>GDP</i>	GDP per capita annual growth rate	World Bank
Crisis	<i>Cr</i>	Dummy 1 for 2007 and 2008; 0 otherwise	Self-generated	

¹<https://www.policyuncertainty.com/>²<https://www.hofstede-insights.com/>³<https://databank.worldbank.org/source/world-development-indicators>

Table 2: Panel A-Descriptive Statistics

Variables	Obs.	Mean	STD.	P25	Median	P75
RTA	7059	0.071	0.104	0.030	0.063	0.109
RTE	7059	0.184	0.588	0.085	0.181	0.292
TBQ	7000	1.168	1.356	0.451	0.800	1.398
STA	7059	8.590	1.540	7.520	8.557	9.665
STS	7016	8.340	1.542	7.232	8.254	9.459
TBL	7059	0.633	0.215	0.508	0.634	0.755
AGR	7059	0.089	0.355	-0.041	0.034	0.139
SGR	7016	0.066	0.213	-0.052	0.042	0.158
TAN	7059	0.522	0.390	0.201	0.439	0.786
LQT	7059	1.530	1.320	0.940	1.269	1.717
ESG	7059	57.660	16.188	46.046	58.147	69.899
PU	7059	4.972	0.536	4.564	4.903	5.335
INF	153	1.583	1.113	0.888	1.666	2.298
GDP	153	0.930	2.400	0.473	1.109	1.797

Panel B: Country-wise mean values

Country Name	RTA	RTE	TBQ	STA	STS	TBL	AGR	SGR	TAN	LQT	ESG	PU	INF	GDP
France	0.064	0.163	1.086	8.826	8.604	0.619	0.099	0.072	0.522	1.507	59.476	5.254	1.270	0.710
Germany	0.074	0.204	1.074	8.691	8.563	0.658	0.084	0.063	0.546	1.501	57.903	4.934	1.398	1.366
Greece	0.079	0.248	1.225	8.232	8.081	0.641	0.100	0.066	0.414	1.555	54.685	4.774	1.450	-0.500
Ireland	0.070	0.208	1.240	8.952	8.638	0.628	0.114	0.069	0.362	1.855	59.493	4.849	1.111	4.132
Italy	0.073	0.216	1.158	8.337	8.005	0.655	0.104	0.066	0.405	1.278	56.150	4.670	1.447	-0.093
Netherlands	0.057	0.179	0.926	9.318	8.832	0.640	0.086	0.067	0.526	1.510	61.706	4.494	1.574	1.028
Spain	0.072	0.189	1.350	8.685	8.283	0.630	0.059	0.060	0.606	1.595	61.413	4.674	1.794	0.884
Sweden	0.081	0.183	1.256	8.564	8.337	0.630	0.080	0.060	0.561	1.462	56.998	4.542	1.141	1.271
United Kingdom	0.068	0.166	1.211	8.374	8.103	0.623	0.090	0.069	0.526	1.614	56.268	5.307	2.134	0.854

Panel C: Country-wise Hofstede's cultural dimensions

Country Name	Power Distance	Individualism	Masculinity	Uncertainty Avoidance	Long-term Orientation	Indulgence
France	68	71	43	86	63	48
Germany	35	67	66	65	83	40
Greece	60	35	57	112	45	50
Ireland	28	70	68	35	24	65
Italy	50	76	70	75	61	30
Netherlands	38	80	14	53	67	68
Spain	57	51	42	86	48	44
Sweden	31	71	5	29	53	78
United Kingdom	35	89	66	35	51	69
Median all countries	38	71	57	65	53	50

Note: Panel A of the table presents descriptive statistics for the complete dataset collected for the period from 2002 to 2018. Panel B presents country-wise mean values. The variables are explained in table 1.

Table 3: Pairwise Correlation

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	
(1) RTA	1.000																		
(2) RTE	0.385*	1.000																	
(3) TBQ	0.480*	0.224*	1.000																
(4) D_High_PDI	-0.038*	-0.002	-0.030*	1.000															
(5) D_High_IDV	-0.021	-0.026*	0.001	-0.163*	1.000														
(6) D_High_MAS	-0.003	0.001	-0.001	0.392*	-0.129*	1.000													
(7) D_High_UAI	-0.013	0.016	-0.042*	0.491*	-0.488*	-0.252*	1.000												
(8) D_High_LTO	0.008	0.005	-0.039*	-0.284*	0.028*	-0.389*	0.486*	1.000											
(9) D_High_IVR	0.000	-0.019	0.022	-0.354*	0.617*	0.106*	-0.860*	-0.351*	1.000										
(10) PU	-0.111*	-0.057*	-0.009	0.345*	0.137*	0.269*	-0.107*	-0.275*	0.027*	1.000									
(11) SZE	-0.133*	-0.021	-0.385*	-0.006	-0.016	-0.075*	0.079*	0.090*	-0.042*	-0.061*	1.000								
(12) TBL	-0.189*	-0.039*	-0.217*	0.007	-0.042*	0.020	0.033*	0.027*	-0.029*	-0.055*	0.202*	1.000							
(13) GRT	0.096*	0.049*	0.056*	0.007	0.008	0.005	0.004	0.002	-0.008	-0.079*	0.008	-0.069*	1.000						
(14) TAN	-0.055*	-0.031*	-0.153*	-0.020	0.003	-0.030*	-0.022	0.015	0.040*	0.007	0.086*	0.032*	-0.110*	1.000					
(15) LQT	-0.029*	-0.038*	0.147*	0.008	-0.012	0.017	-0.032*	-0.056*	0.020	0.064*	-0.254*	-0.421*	0.048*	-0.128*	1.000				
(16) ESG	-0.012	0.021	-0.117*	0.011	-0.017	-0.054*	0.059*	0.041*	-0.039*	0.074*	0.544*	0.066*	-0.105*	0.081*	-0.147*	1.000			
(17) INF	0.052*	0.028*	-0.026*	0.188*	0.069*	0.209*	-0.149*	-0.288*	0.166*	0.031*	-0.015	0.018	0.059*	-0.021	-0.026*	-0.066*	1.000		
(18) GDP	0.044*	0.027*	0.067*	-0.132*	-0.060*	0.038*	-0.083*	0.021	0.030*	-0.052*	0.002	-0.023	0.057*	0.013	0.018	0.001	-0.027*	1.000	

Note: The variables are explained in table 1. * $p < 0.05$.

Table 4: The impact of policy uncertainty of firm-performance

	(1)	(2)	(3)	(4)	(5)	(6)
	RTA	RTA	RTE	RTE	TBQ	TBQ
Lag_RTAs	0.295*** (0.001)	0.296*** (0.000)				
Lag_RTE			0.053*** (0.000)	0.053*** (0.000)		
Lag_TBQ					0.613*** (0.000)	0.614*** (0.000)
STA	-0.011*** (0.000)	-0.011*** (0.000)	-0.043*** (0.000)	-0.039*** (0.000)	-0.281*** (0.001)	-0.275*** (0.001)
TBL	-0.230*** (0.001)	-0.230*** (0.000)	-0.733*** (0.001)	-0.733*** (0.001)	-1.025*** (0.003)	-1.014*** (0.004)
AGR	0.066*** (0.000)	0.069*** (0.000)	0.227*** (0.000)	0.240*** (0.000)	0.164*** (0.001)	0.200*** (0.001)
TAN	-0.009*** (0.000)	-0.008*** (0.000)	-0.044*** (0.001)	-0.044*** (0.001)	-0.107*** (0.002)	-0.109*** (0.002)
LQT	-0.018*** (0.000)	-0.018*** (0.000)	-0.075*** (0.000)	-0.074*** (0.000)	-0.135*** (0.000)	-0.134*** (0.000)
PU	-0.017*** (0.000)		-0.063*** (0.000)		-0.168*** (0.001)	
Lag_PU		-0.017*** (0.000)		-0.042*** (0.000)		-0.091*** (0.001)
Constant	0.408*** (0.001)	0.404*** (0.001)	1.449*** (0.003)	1.297*** (0.004)	4.714*** (0.012)	4.229*** (0.011)
Observations	7,059	7,059	7,059	7,059	7,000	7,000
Firms	702	702	702	702	697	697
Instruments	601	601	601	601	601	601
Hansen P-value	0.828	0.835	0.783	0.786	0.672	0.671
AR1 P-value	0.000	0.000	0.000	0.000	0.000	0.000
AR2 P-value	0.666	0.660	0.525	0.528	0.382	0.490
Crisis Effect	Yes	Yes	Yes	Yes	Yes	Yes
Country Effect	Yes	Yes	Yes	Yes	Yes	Yes

*Note: The table presents the results of dynamic regression analysis (GMM-System) to investigate the impact of policy uncertainty on firm performance. We take one-year lagged dependent, firm size, leverage, and growth as endogenous variables in all the regression models. The results are controlled for country fixed effects and crisis period (2007-08). The variables are as explained in table 1. Standard errors are in parenthesis, *** p<0.01, ** p<0.05, * p<0.10.*

Table 5: The moderating impact of culture on the relationship between policy uncertainty and firm performance (RTA)

	(1)	(2)	(3)	(4)	(5)	(6)
	RTA	RTA	RTA	RTA	RTA	RTA
Lag_RTA	0.303*** (0.000)	0.302*** (0.000)	0.300*** (0.000)	0.301*** (0.000)	0.301*** (0.000)	0.302*** (0.000)
STA	0.006*** (0.000)	0.006*** (0.000)	0.007*** (0.000)	0.007*** (0.000)	0.006*** (0.000)	0.006*** (0.000)
TBL	-0.330*** (0.000)	-0.333*** (0.000)	-0.333*** (0.000)	-0.334*** (0.000)	-0.333*** (0.001)	-0.334*** (0.001)
AGR	0.015*** (0.000)	0.015*** (0.000)	0.015*** (0.000)	0.015*** (0.000)	0.015*** (0.000)	0.015*** (0.000)
TAN	-0.012*** (0.000)	-0.012*** (0.000)	-0.012*** (0.000)	-0.012*** (0.000)	-0.012*** (0.000)	-0.012*** (0.000)
LQT	-0.023*** (0.000)	-0.023*** (0.000)	-0.023*** (0.000)	-0.023*** (0.000)	-0.023*** (0.000)	-0.023*** (0.000)
PU	-0.028*** (0.001)	-0.022*** (0.000)	-0.028*** (0.000)	-0.015*** (0.000)	-0.016*** (0.000)	-0.025*** (0.000)
D_High_PDI*PU	0.009*** (0.001)					
D_High_IDV*PU		0.004*** (0.001)				
D_High_MAS*PU			0.013*** (0.000)			
D_High_UAI*PU				-0.010*** (0.000)		
D_High_LTO*PU					-0.008*** (0.000)	
D_High_IVR*PU						0.009*** (0.000)
Constant	0.329*** (0.001)	0.325*** (0.001)	0.374*** (0.002)	0.360*** (0.002)	0.358*** (0.002)	0.362*** (0.001)
Observations	7,059	7,059	7,059	7,059	7,059	7,059
Firms	702	702	702	702	702	702
Instruments	602	602	602	602	602	602
Wald P-value	0.000	0.000	0.000	0.000	0.000	0.000
Hansen P-value	0.802	0.814	0.796	0.798	0.794	0.820
AR1 P-value	0.000	0.000	0.000	0.000	0.000	0.000
AR2 P-value	0.406	0.404	0.401	0.401	0.402	0.400
Crisis Effect	Yes	Yes	Yes	Yes	Yes	Yes
Country Effect	Yes	Yes	Yes	Yes	Yes	Yes

Note: The table presents the results of regression analysis (including only the interaction term) to investigate the robustness of the moderating impact of cultural dimensions on the relationship between policy uncertainty and firm performance (RTA). We take one-year lagged dependent, firm size, leverage, and growth as endogenous variables in all the regression models. Wald test verifies the significance of the marginal effect of the interaction term of PU with cultural dimensions. The results are controlled for country fixed effects and crisis period (2007-08). The variables are as explained in table 1. Standard errors are in parenthesis, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table 6: The moderating impact of culture on the relationship between policy uncertainty and firm performance (RTE)

	(1)	(2)	(3)	(4)	(5)	(6)
	RTE	RTE	RTE	RTE	RTE	RTE
Lag_RTE	0.065*** (0.000)	0.065*** (0.000)	0.064*** (0.000)	0.065*** (0.000)	0.065*** (0.000)	0.065*** (0.000)
STA	-0.022*** (0.000)	-0.022*** (0.000)	-0.019*** (0.000)	-0.020*** (0.000)	-0.021*** (0.000)	-0.021*** (0.000)
TBL	-0.772*** (0.001)	-0.775*** (0.001)	-0.779*** (0.002)	-0.781*** (0.002)	-0.778*** (0.001)	-0.781*** (0.002)
AGR	0.092*** (0.000)	0.092*** (0.000)	0.090*** (0.000)	0.091*** (0.000)	0.091*** (0.000)	0.091*** (0.000)
TAN	-0.045*** (0.001)	-0.048*** (0.001)	-0.048*** (0.001)	-0.048*** (0.001)	-0.048*** (0.001)	-0.049*** (0.001)
LQT	-0.078*** (0.000)	-0.078*** (0.000)	-0.078*** (0.000)	-0.078*** (0.000)	-0.078*** (0.000)	-0.078*** (0.000)
PU	-0.149*** (0.003)	-0.090*** (0.001)	-0.121*** (0.001)	-0.050*** (0.001)	-0.054*** (0.001)	-0.100*** (0.001)
D_High_PDI*PU	0.085*** (0.003)					
D_High_IDV*PU		0.027*** (0.001)				
D_High_MAS*PU			0.072*** (0.001)			
D_High_UAI*PU				-0.054*** (0.001)		
D_High_LTO*PU					-0.049*** (0.001)	
D_High_IVR*PU						0.049*** (0.001)
Constant	1.292*** (0.004)	1.285*** (0.003)	1.577*** (0.006)	1.490*** (0.006)	1.495*** (0.005)	1.485*** (0.004)
Observations	7,059	7,059	7,059	7,059	7,059	7,059
Firms	702	702	702	702	702	702
Instruments	602	602	602	602	602	602
Wald P-value	0.000	0.000	0.000	0.000	0.000	
Hansen P-value	0.876	0.878	0.867	0.831	0.830	0.831
AR1 P-value	0.000	0.000	0.000	0.000	0.000	0.000
AR2 P-value	0.414	0.417	0.410	0.413	0.413	0.413
Crisis Effect	Yes	Yes	Yes	Yes	Yes	Yes
Country Effect	Yes	Yes	Yes	Yes	Yes	Yes

*Note: The table presents the results of regression analysis (including only the interaction term) to investigate the robustness of the moderating impact of cultural dimensions on the relationship between policy uncertainty and firm performance (RTE). We take one-year lagged dependent, firm size, leverage, and growth as endogenous variables in all the regression models. Wald test verifies the significance of the marginal effect of the interaction term of PU with cultural dimensions. The results are controlled for country fixed effects and crisis period (2007-08). The variables are as explained in table 1. Standard errors are in parenthesis, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.*

Table 7: The moderating impact of culture on the relationship between policy uncertainty and firm performance (TBQ)

	(1)	(2)	(3)	(4)	(5)	(6)
	TBQ	TBQ	TBQ	TBQ	TBQ	TBQ
Lag_TBQ	0.657*** (0.000)	0.652*** (0.000)	0.656*** (0.000)	0.654*** (0.000)	0.656*** (0.000)	0.654*** (0.000)
STA	-0.215*** (0.001)	-0.218*** (0.001)	-0.214*** (0.001)	-0.216*** (0.001)	-0.215*** (0.001)	-0.215*** (0.001)
TBL	-0.944*** (0.002)	-0.973*** (0.003)	-0.962*** (0.002)	-0.966*** (0.002)	-0.960*** (0.002)	-0.967*** (0.002)
AGR	-0.221*** (0.001)	-0.218*** (0.001)	-0.221*** (0.001)	-0.221*** (0.001)	-0.223*** (0.001)	-0.221*** (0.001)
TAN	-0.124*** (0.002)	-0.124*** (0.002)	-0.123*** (0.003)	-0.125*** (0.003)	-0.123*** (0.003)	-0.122*** (0.003)
LQT	-0.108*** (0.000)	-0.109*** (0.000)	-0.108*** (0.000)	-0.109*** (0.000)	-0.109*** (0.000)	-0.109*** (0.000)
PU	-0.439*** (0.005)	-0.405*** (0.003)	-0.256*** (0.001)	-0.143*** (0.001)	-0.154*** (0.001)	-0.292*** (0.002)
D_High_PDI*PU	0.257*** (0.006)					
D_High_IDV*PU		0.253*** (0.004)				
D_High_MAS*PU			0.088*** (0.002)			
D_High_UAI*PU				-0.142*** (0.002)		
D_High_LTO*PU					-0.129*** (0.003)	
D_High_IVR*PU						0.147*** (0.002)
Constant	4.104*** (0.009)	3.992*** (0.008)	4.501*** (0.009)	4.675*** (0.010)	4.653*** (0.012)	4.704*** (0.010)
Observations	7,000	7,000	7,000	7,000	7,000	7,000
Firms	697	697	697	697	697	697
Instruments	602	602	602	602	602	602
Wald P-value	0.000	0.000	0.000	0.000	0.000	0.000
Hansen P-value	0.703	0.714	0.722	0.728	0.740	0.722
AR1 P-value	0.000	0.000	0.000	0.000	0.000	0.000
AR2 P-value	0.259	0.256	0.262	0.259	0.256	0.259
Crisis Effect	Yes	Yes	Yes	Yes	Yes	Yes
Country Effect	Yes	Yes	Yes	Yes	Yes	Yes

Note: The table presents the results of regression analysis (including only the interaction term) to investigate the robustness of the moderating impact of cultural dimensions on the relationship between policy uncertainty and firm performance (TBQ). We take one-year lagged dependent, firm size, leverage, and growth as endogenous variables in all the regression models. Wald test verifies the significance of the marginal effect of the interaction term of PU with cultural dimensions. The results are controlled for country fixed effects and crisis period (2007-08). The variables are as explained in table 1. Standard errors are in parenthesis, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.

Table 8: Robustness – The moderating impact of culture on the relationship between policy uncertainty and firm performance (RTA) – Including additional firm and country-level control variables

	(1) RTA	(2) RTA	(3) RTA	(4) RTA	(5) RTA	(6) RTA
Lag_RTA	0.299*** (0.000)	0.298*** (0.001)	0.298*** (0.001)	0.298*** (0.001)	0.298*** (0.001)	0.298*** (0.001)
STS	-0.012*** (0.000)	-0.012*** (0.000)	-0.011*** (0.000)	-0.011*** (0.000)	-0.012*** (0.000)	-0.011*** (0.000)
TBL	-0.227*** (0.001)	-0.229*** (0.000)	-0.229*** (0.000)	-0.229*** (0.001)	-0.229*** (0.001)	-0.229*** (0.001)
SGR	0.065*** (0.000)	0.065*** (0.000)	0.064*** (0.000)	0.064*** (0.000)	0.064*** (0.000)	0.065*** (0.000)
TAN	-0.009*** (0.000)	-0.009*** (0.000)	-0.009*** (0.000)	-0.009*** (0.000)	-0.009*** (0.000)	-0.009*** (0.000)
LQT	-0.017*** (0.000)	-0.017*** (0.000)	-0.017*** (0.000)	-0.017*** (0.000)	-0.017*** (0.000)	-0.017*** (0.000)
ESG	0.034*** (0.001)	0.034*** (0.000)	0.033*** (0.000)	0.033*** (0.000)	0.033*** (0.000)	0.033*** (0.001)
INF	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)	0.002*** (0.000)
GDP	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)	0.000*** (0.000)
PU	-0.040*** (0.001)	-0.023*** (0.000)	-0.023*** (0.000)	-0.019*** (0.000)	-0.018*** (0.000)	-0.022*** (0.000)
D_High_PDI*PU	0.020*** (0.001)					
D_High_IDV*PU		0.004*** (0.000)				
D_High_MAS*PU			0.005*** (0.000)			
D_High_UAI*PU				-0.003*** (0.000)		
D_High_LTO*PU					-0.004*** (0.000)	
D_High_IVR*PU						0.003*** (0.000)
Constant	0.277*** (0.002)	0.278*** (0.001)	0.303*** (0.002)	0.292*** (0.002)	0.296*** (0.002)	0.294*** (0.002)
Observations	7,016	7,016	7,016	7,016	7,016	7,016
Firms	698	698	698	698	698	698
Instruments	605	605	605	605	605	605
Wald P-value	0.000	0.000	0.000	0.000	0.000	0.000
Hansen P-value	0.797	0.840	0.842	0.820	0.853	0.833
AR1 P-value	0.000	0.000	0.000	0.000	0.000	0.000
AR2 P-value	0.564	0.571	0.572	0.569	0.569	0.570
Crisis Effect	Yes	Yes	Yes	Yes	Yes	Yes
Country Effect	Yes	Yes	Yes	Yes	Yes	Yes

*Note: The table presents the results of regression analysis (controlling for additional firm-level and country-level variables) to investigate the robustness of the moderating impact of cultural dimensions on the relationship between policy uncertainty and firm performance (RTA). We take one-year lagged dependent, firm size, leverage, and growth as endogenous variables in all the regression models. Wald test verifies the significance of the marginal effect of the interaction term of PU with cultural dimensions. The results are controlled for country fixed effects and crisis period (2007-08). The variables are as explained in table 1. Standard errors are in parenthesis, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.*

Table 9: Robustness – The moderating impact of culture on the relationship between policy uncertainty and firm performance (RTE) – Including additional firm and country-level control variables

	(1) RTE	(2) RTE	(3) RTE	(4) RTE	(5) RTE	(6) RTE
Lag_RTE	0.053*** (0.000)	0.054*** (0.000)	0.053*** (0.000)	0.053*** (0.000)	0.053*** (0.000)	0.053*** (0.000)
STS	-0.052*** (0.000)	-0.052*** (0.001)	-0.050*** (0.001)	-0.051*** (0.000)	-0.052*** (0.001)	-0.052*** (0.000)
TBL	-0.723*** (0.002)	-0.732*** (0.002)	-0.736*** (0.001)	-0.738*** (0.001)	-0.736*** (0.002)	-0.737*** (0.001)
SGR	0.222*** (0.000)	0.223*** (0.001)	0.220*** (0.001)	0.219*** (0.000)	0.219*** (0.001)	0.221*** (0.001)
TAN	-0.048*** (0.001)	-0.050*** (0.001)	-0.050*** (0.001)	-0.051*** (0.001)	-0.049*** (0.001)	-0.049*** (0.001)
LQT	-0.069*** (0.000)	-0.070*** (0.000)	-0.070*** (0.000)	-0.071*** (0.000)	-0.071*** (0.000)	-0.070*** (0.000)
ESG	0.182*** (0.001)	0.183*** (0.001)	0.179*** (0.001)	0.179*** (0.001)	0.180*** (0.002)	0.181*** (0.001)
INF	0.007*** (0.000)	0.006*** (0.000)	0.006*** (0.000)	0.006*** (0.000)	0.007*** (0.000)	0.006*** (0.000)
GDP	0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)	0.004*** (0.000)
PU	-0.166*** (0.004)	-0.102*** (0.001)	-0.121*** (0.001)	-0.062*** (0.001)	-0.064*** (0.001)	-0.103*** (0.001)
D_High_PDI*PU	0.092*** (0.004)					
D_High_IDV*PU		0.031*** (0.001)				
D_High_MAS*PU			0.060*** (0.002)			
D_High_UAI*PU				-0.041*** (0.001)		
D_High_LTO*PU					-0.041*** (0.001)	
D_High_IVR*PU						0.039*** (0.001)
Constant	0.823*** (0.004)	0.811*** (0.006)	1.082*** (0.009)	0.992*** (0.006)	1.003*** (0.004)	0.986*** (0.005)
Observations	7,016	7,016	7,016	7,016	7,016	7,016
Firms	698	698	698	698	698	698
Instruments	605	605	605	605	605	605
Wald P-value	0.000	0.000	0.000	0.000	0.000	0.000
Hansen P-value	0.738	0.729	0.715	0.726	0.740	0.724
AR1 P-value	0.000	0.000	0.000	0.000	0.000	0.000
AR2 P-value	0.535	0.537	0.530	0.534	0.534	0.535
Crisis Effect	Yes	Yes	Yes	Yes	Yes	Yes
Country Effect	Yes	Yes	Yes	Yes	Yes	Yes

*Note: The table presents the results of regression analysis (controlling for additional firm-level and country-level variables) to investigate the robustness of the moderating impact of cultural dimensions on the relationship between policy uncertainty and firm performance (RTE). We take one-year lagged dependent, firm size, leverage, and growth as endogenous variables in all the regression models. Wald test verifies the significance of the marginal effect of the interaction term of PU with cultural dimensions. The results are controlled for country fixed effects and crisis period (2007-08). The variables are as explained in table 1. Standard errors are in parenthesis, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.*

Table 10: Robustness - The moderating impact of culture on the relationship between policy uncertainty and firm performance (RTA) - Including additional firm and country-level control variables

	(1)	(2)	(3)	(4)	(5)	(6)
	TBQ	TBQ	TBQ	TBQ	TBQ	TBQ
Lag_TBQ	0.617*** (0.000)	0.611*** (0.000)	0.616*** (0.000)	0.615*** (0.000)	0.616*** (0.000)	0.614*** (0.000)
STS	-0.329*** (0.001)	-0.332*** (0.001)	-0.327*** (0.001)	-0.327*** (0.001)	-0.328*** (0.001)	-0.328*** (0.001)
TBL	-1.022*** (0.004)	-1.047*** (0.004)	-1.044*** (0.005)	-1.052*** (0.004)	-1.040*** (0.004)	-1.046*** (0.003)
SGR	0.239*** (0.002)	0.245*** (0.001)	0.237*** (0.001)	0.234*** (0.002)	0.235*** (0.001)	0.238*** (0.001)
TAN	-0.127*** (0.003)	-0.131*** (0.003)	-0.130*** (0.003)	-0.131*** (0.003)	-0.128*** (0.003)	-0.130*** (0.003)
LQT	-0.125*** (0.000)	-0.127*** (0.001)	-0.126*** (0.000)	-0.127*** (0.001)	-0.127*** (0.000)	-0.126*** (0.000)
ESG	0.706*** (0.006)	0.715*** (0.006)	0.701*** (0.006)	0.697*** (0.007)	0.700*** (0.006)	0.699*** (0.007)
INF	-0.033*** (0.000)	-0.042*** (0.000)	-0.034*** (0.000)	-0.035*** (0.000)	-0.031*** (0.000)	-0.037*** (0.000)
GDP	-0.005*** (0.000)	-0.005*** (0.000)	-0.006*** (0.000)	-0.006*** (0.000)	-0.006*** (0.000)	-0.005*** (0.000)
PU	-0.445*** (0.010)	-0.500*** (0.004)	-0.282*** (0.002)	-0.168*** (0.002)	-0.190*** (0.002)	-0.332*** (0.003)
D_High_PDI*PU	0.235*** (0.011)					
D_High_IDV*PU		0.332*** (0.005)				
D_High_MAS*PU			0.088*** (0.004)			
D_High_UAI*PU				-0.144*** (0.003)		
D_High_LTO*PU					-0.091*** (0.004)	
D_High_IVR*PU						0.168*** (0.004)
Constant	2.506*** (0.021)	2.316*** (0.018)	2.912*** (0.021)	3.091*** (0.026)	2.916*** (0.024)	3.196*** (0.025)
Observations	7,000	7,000	7,000	7,000	7,000	7,000
Firms	697	697	697	697	697	697
Instruments	605	605	605	605	605	605
Wald P-value	0.000	0.000	0.000	0.000	0.000	0.000
Hansen P-value	0.722	0.707	0.717	0.728	0.735	0.730
AR1 P-value	0.000	0.000	0.000	0.000	0.000	0.000
AR2 P-value	0.366	0.360	0.369	0.364	0.361	0.365
Crisis Effect	Yes	Yes	Yes	Yes	Yes	Yes
Country Effect	Yes	Yes	Yes	Yes	Yes	Yes

*Note: The table presents the results of regression analysis (controlling for additional firm-level and country-level variables) to investigate the robustness of the moderating impact of cultural dimensions on the relationship between policy uncertainty and firm performance (TBQ). We take one-year lagged dependent, firm size, leverage, and growth as endogenous variables in all the regression models. Wald test verifies the significance of the marginal effect of the interaction term of PU with cultural dimensions. The results are controlled for country fixed effects and crisis period (2007-08). The variables are as explained in table 1. Standard errors are in parenthesis, *** $p < 0.01$, ** $p < 0.05$, * $p < 0.10$.*