

Corporate Political Activities and Firm Size: Empirical Evidence from Latin America

Abstract

We discuss firms' motivations to engage in corporate political activities (CPA). We argue that a firm's incentives to do CPA are increasing in size for small firms. For larger firms, CPA are more likely externalized to industry associations and other entities. This suggests the existence of an inverted-U relationship between the time senior management spends with government officials and size. We find such relationship using firm-level data from the World Bank's Enterprise survey for a sample of Latin American countries. We discuss other potential explanations for our results and study whether our main result applies to selected subsamples.

Keywords: Political economy; Lobbying; Latin America.

1 Introduction

Government policies and market regulations affect the competitive environment in which firms operate. This fact has important implications on the competitive position of firms, their profitability and, ultimately their choices of business strategies. The influence of governments on the business environment varies across countries and governments' styles of administration. It is argued in the business-government literature that the greater the influence of public policies on the competitive environment of firms, the more intense the engagement of firms with actions to influence policy makers. These actions belong to the corporate political activities (CPA) literature, which analyzes issues related to how firms influence policy-makers to their favor (Baysinger, 1984).

However, at firm-level analysis of CPA most empirical and conceptual contribution in the field supports that firm size has a predominant effect on the undertaking of CPA, and ultimately, on the influence on public policymaking. In general, it is argued that larger firms are more politically active and with a larger probability than smaller firms they influence governments and policy-makers (Macher and Mayo, 2015). However, this general view is not clear at all. Indeed, the political environment in Latin American countries adds a real factor of unpredictability that may push firms of all sizes to adopt CPA. In fact, this can be so because given the volatility and uncertainty that the political factor introduces, firms must be involved in activities of political influence for survival rather than mere activities aimed at creating competitive advantages.

This paper goes deeper on the relationship between firm size and the use of CPA in a sample of Latin American countries, a region that shows continuous political transformation with strong impact in their business environment. More precisely, the main contribution of this paper is to provide empirical evidence of the relationship between the firm size and firms' engagement in political activities. In particular we use the World Bank's Enterprise Survey Database for a sample of Latin American countries in 2006. We measure the engagement of the firm in CPA activities by means of the fraction of the time top managers spend with government officials. Intuitively, it can be supported that firms have

an active role with the political environment in this type of countries. Certainly, every time most countries in the region have a new elected president, firms often could expect new and radically different policies, regulations and economic decisions affecting the business environment. Consider the following: during last decade it as promoted a division in LAC between free trade versus protectionism economies. While countries such as Argentina, Brazil and, Venezuela protected their domestic industries with strong intervention in their economies, Chile, Peru, Colombia and Mexico engaged in a free trade agreement, the Pacific Alliance Group. Therefore, the behavior of firms over political actors or policymakers should be dynamic in terms of CPA. In other words, a higher involvement in CPA and/or strategies to influence governments should be taken by all type of firms, whether being large and small size.

Based on the approach to Corporate Political Strategy design in Hillman and Hitt (1999), firms will decide in between a transactional or relational approach. The former approach refers to firms being involved in corporate political strategy only when facing new public policies affecting their interest. In contrast, the relational approach pursues political strategies over the long-term. In this regard, the political environment in LAC allows assuming firms must be aligned with a relational approach in the CPA strategy. Indeed, it makes sense that the political environment in LAC adds a factor of unpredictability to the business environment such that firms are induced to consider *non-market strategies* along with *market strategies* (Hillman et al., 2005). Nonmarket actions are coordinated actions firms undertake in public policy arenas (Bonardi et al., 2006). However, while we may expect firms' higher engagement with CPAs in LAC a lack of empirical insights from firm-size effect is available. Thus, this paper fills this gap in the existent literature.

However, based in the results in this empirical study, the central issue of discussion in this paper is the assumption that managers in small and large-size firms do not need to directly contact governments. The effort to engage in CPA or political activities by small-size firms is low due to the lack of resources, then it is when firms grow up that they have a greater interest to be involved in CPA. The assumption behind this view is that small-size firms are more likely to use collective political participation due to lack of resources to sustain this relationship, hence top manager do not spend large periods of time in CPA. Also, the management in large-size firms do not engage large period of time in political participation because they are organized in business associations to influence policy makers. Thus, as well as firms grow up they can have people specialized in dealing with the governments, thus freeing time from top management.

A final issue of concern is related to the study of the LAC. In most developing countries, data on contributions and political activities are not available. Therefore, this paper contributes with empirical evidence on the firm size and firms' nonmarket strategies in the developing countries. Data in the database does not allow us to identify firms' tactics used in order to enter the political arena and to influence public policy, thereby shaping the competitive environment.

The rest of the paper is organized as follows: Section 2 reviews the relevant literature. Section ?? discusses the different hypotheses tested in the empirical section. Section 4 describes the data used in this paper. Section 5 presents the econometric analysis of the data. Finally, Section 6 presents some concluding comments.

2 Literature Review

Scholars from management, economics, political science, and sociology have all studied business and politics relationships (Getz, 1997) (Hillman, 2004). However, research on Corporate political activities (CPA) has not been a central focus in any of these disciplines (Lux et al., 2011). In this empirical paper, we attempt to contribute with the manage-

ment field by examining how management behave politically with policy officials in a set of developing countries, more precisely fourteen LAC. CPA are means to influence policymaking toward firms favor (Baysinger, 1984). Specifically, by gaining and maintaining access to those who make public policy over legal and regulatory environments (Hillman, 2003). CPA are tactics belonging to the firms non-market strategy (Henisz and Zelner, 2012). Research on CPA focuses on the interactions between businesses and formal legal institutions (de Figueiredo, 2009; Holburn and Vanden Bergh, 2014). Vassolo et al. (2011) support that since governments of emerging markets, such as those in Latin America are more prone to arbitrarily alter the institutional context, hence firms need to increase their lobbying activities to secure government favors and protect their business positions.

An extensive review in Hillman et al. (2004) highlights that most empirical research on CPA as a mean to influence public policymaking is based on three main levels of analysis: Firm, industry, and country. In this paper we primary focus on firm level analysis, given the structure of our dataset. The general empirical and theoretical consensus supports that firm size produces a large and positive influence in policymaking and, also showing strong correlation with the utilization of CPA, see, for instance, the early work in Boddewyn and Brewer (1994). Also see the extensive review in Hillman et al. (2004). Most literature supports that larger firms, more precisely those with greater financial and intangible resources, are more likely to engage in CPA (Chong and Gradstein, 2010; Salamon and Siegfried, 1977; Macher and Mayo, 2015) (Hillman et al, 2004), showing reputation benefits (Morck et al., 2005), and the accumulation of market and political power (Khanna and Yafeh, 2007). In particular, this is the case for firms with larger financial resources and political capabilities (Schuler and Rehbein, 1997; Hillman and Hitt, 1999; Okhmatovskiy, 2010; Bonardi, 2011), as well as large firms in terms of sales, assets, and employees (Grier et al., 1994; Hillman, 2003; Schuler, 1996; Schuler et al., 2002). This paper contributes with this theoretical and empirical discussion in a sample of Latin American countries (LAC) by examining the relationship between firm size and management's time spent on dealing with government officials.

A well known set of CPA firms often resort to influence governments: campaign contributions (financial), lobbying, government membership on company boards, political action committees, and not surprisingly, bribery (Austen-Smith and Wright, 1996; Hillman and Hitt, 1999; Bonardi et al., 2006; Lawton et al., 2013; Yoffie and Bergenstein, 1985). However, while much is known about CPA practices in developed countries, little is known about developing countries and, more precisely, from LAC. Researchers in developed countries, such as in the United States overcome this constraint by using data on lobbying expenditures and political action committee (PAC) (Grier et al., 1994; Mitchell et al., 1997) (Masters and Keim 1985; Kim 2008; Lux et al. 2011).

Weymouth (2012), a recent empirical contribution on the determinants of lobbying and policy influence in developing countries shows that firms' size and market power correlate with lobbying and its effectiveness in the developing world. Unfortunately, in this study we faced a main constraint in order to specifically investigate firms' CPA: our database does not allow us to determine the type of approach firms uses to be involved in political activities, if any. Nevertheless, our results provide a novel contribution for future theoretical and empirical work. Now, while CPA is a legal action, in countries with weak institutionalization show informal political engagement by firms (Adly, 2009); thus, it is not surprising to find out low engagement of firms with political actors in the World Bank's Enterprise Survey. Therefore, our results provide a novel contribution for future theoretical and empirical contribution.

While little evidence and data on specific political activities is available for developing countries, we expect firms to undertake some kind of political actions because governments in LAC have a strong influence in the business environment

(The Global Risk Report, 2017). Therefore, corporate political activity (CPA) is desirable. Indeed firms' CPA is subject to cost-benefit analysis (Baron, 1995; Mitchell et al., 1997) and, also firms are expected to 'hurt' their rivals by using CPA (Oster, 1982). The profit maximization view implies that firms will engage in CPA if the expected outcome of the activity produces an increase in revenues or a reduction in costs (Hansen and Mitchell, 2000).

The profit maximization analysis drives to discussion regarding the level of participation of firms, whether being individual or collective participation. Very early work in Olson (1965) supports that the cost of collective participation (such as in trade associations) is preferable in order to share costs between members, resulting in lower per-firm costs of political action (Chong, 1991). Business group affiliation can provide firms access to both, tangible and intangible resources that may be unavailable to individual firms (Chang and Hong, 2002). However, large firms and those with dominant position should take individual actions because: they have greater tangibles (financial) and intangibles resources, knowledge, higher political experience, and so forth. Therefore, large firms are better positioning to influence policy making (Macher and Mayo, 2015).

Unfortunately, the results presented in this paper do not allow us to determine the kind of participation (if any) firm takes. However, diverse interpretations can be made. For instance, the lower participation of top managers in small and large firms are consistent with business associations being an effective communication channel with policymakers. Also, there would exist an informal channel of influence with policymakers, or the way of influence is the bribery, or the mix between lobbying and bribery. Certainly, as Harstad and Svensson (2011) point out firms can gain influence by lobbying politicians or by bribing bureaucrats. In their framework authors do not explicitly discuss the effect of political stability, but consistent with our view in relationship with the political characteristics in LAC it is suggested that high political instability should make lobbying less effective (Campos and Giovannoni, 2007). In counterpart, in Damania et al. (2004) approach corruption and lobbying are viewed as complements, rather than substitutes. However, Campos and Giovannoni (2007) find that corruption has a negative and significant impact to joint a lobbying group, while political stability has a positive and significant impact on the decision to join a lobby.

3 Hypotheses

We now proceed to discuss the main hypotheses to be tested in this paper. The results from the empirical analysis are shown in section 5, using data discussed in section 4. We will make the distinction between results from the full sample of firms and from the different subsamples.

3.1 Full sample effects

3.1.1 Firm size

Dealing with government officials is a costly task, since it uses up valuable management time. On the other hand, the benefit the firm may potentially obtain is in terms of regulation, or in general, decisions made by public officials, that is more favorable to the firm's interests. The impact of these decisions will be bigger the larger firm size. For this reason, when considering relatively smaller firms, we expect the percentage of the time spent with government officials to grow with firm size. In contrast, as we consider larger firms, we expect, on the one hand, that there is some intra-firm

specialization of personnel that frees up management time. On the other hand, we expect firms to organize themselves around business associations that deal directly with government officials. This should make the relationship between size and percentage of the managers' time spent with government officials be negative. Considering both arguments, we expect the overall relationship to be curvilinear, in particular exhibiting an inverted-U shape.

Hypothesis 1 *There is an inverted-U relationship between firm size and the percentage of the management's time spent on dealing with government officials.*

3.2 Subsamples

In this subsection, we argue what the expected effect is of considering different subsamples of firms. In particular, we will consider exporters vs non-exporters, upstream vs downstream firms, firms that began as informal firms vs firms that began as non-informal firms, and innovators vs non-innovators.

3.2.1 Exporters vs non-exporters

We expect that the benefit of CPA will be relatively smaller for those firms that export. On the one hand, there is extensive evidence that firms self-select into exporting according to their productivity levels (Melitz, 2003), which makes them be stronger competitors even in the absence of favorable regulation. On the other hand, the potentially positive effect of CPA applies to those revenues coming from the domestic market. For these reasons, we expect the relationship between size and time spent with government officials to be stronger among non-exporters. This is reflected in the following hypothesis:

Hypothesis 2 *The effect of firm size will be stronger among non-exporters.*

3.2.2 Upstream vs downstream firms

Borrowing from the Industrial Organization literature (Tirole, 1988), a firm is said to be an upstream firm if it mainly sells its product to other firms. Similarly, a firm is considered to be a downstream firm if it sells mainly to final consumers. Transactions among firms are more likely to be driven mostly by efficiency considerations, leaving less scope for government policies affecting such transactions. For this reason, we formulate the following hypothesis.

Hypothesis 3 *The effect of firm size will be stronger among downstream firms.*

3.2.3 Beginning informal

Informal firms are likely to retain some traits that make them less productive than firms that began operations as formal firms, even after they transition to formalization. For instance, Mendi and Mudida (2018) find that, among Kenyan firms, those that began operations informally are less likely to innovate than those that began operations in the formal sector. We expect these relatively less productive firms to be the ones most interested in engaging in CPA.

Hypothesis 4 *The effect of firm size will be stronger among firms that began operations as informal firms.*

3.2.4 Innovators vs non-innovators

In an analogous way as in the case of exporters, we expect innovators to be more productive firms than non-innovators. For this reason, there will be less need for them to engage in CPA than in the case of non-innovators, whose competitive advantage may rely on the existence of favorable regulation.

Hypothesis 5 *The effect of firm size will be stronger among non-innovators.*

4 The data

This paper makes use of the 2006 wave of the World Bank’s Enterprise Survey for a number of Latin American countries. The Enterprise Survey makes use of an extensive questionnaire that is administered in a number of different countries, mostly developing countries. In particular, our sample includes firms from the following countries: Argentina, Bolivia, Chile, Colombia, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, and Uruguay. See Mendi and Costamagna (2017) for a recent contribution that uses the same database. The questionnaire also included questions providing information on up to what degree practices of firms in the informal sector represented an important obstacle to firm activities. Our sample of Latin American Countries for which data on licensing activities are available is:. In all cases, the survey year was 2006, and the total number of firms surveyed is 5474. However, due to the existence of missing values in some of the variables, the final number of observations may vary in some of the specifications whose estimated coefficients are reported below.

In our study, the dependent variable is *time_manag*, the percentage of time that senior management has to spend with government officials. This is a self-reported variable that takes values from 0 to 100. On the other hand, the main independent variable is firm size, *lnemp*, which is measured as the logarithm of employees. In order to allow for the existence of a non-linear relationship, in our econometric specifications we include *lnemp* and this variable squared. In one of the specifications we will also include *nonprod*, which is defined as the ratio of non-production workers to total workers.

Table 1: Variable definitions

| Dependent variables | |
|-----------------------------|---|
| <i>time_manag</i> | Percentage of the management’s time that is spent on dealing with government officials. |
| Independent variable | |
| <i>lnemp</i> | Logarithm of the number of employees |
| <i>nonprod</i> | Ratio of non-production workers to production workers |
| Controls | |
| <i>age</i> | Logarithm of firm age, in years |
| <i>group</i> | Dummy that takes value 1 if the firm belongs to a group of firms, 0 otherwise |
| <i>competpres</i> | Number of competitors that the firm faces |
| <i>downstream</i> | Dummy that takes value 1 if the main buyers for the firm’s product are final consumers, 0 otherwise |
| <i>begin_informal</i> | Dummy that takes value 1 if the firm began operations as an informal firm, 0 otherwise |
| <i>exportint</i> | Percentage of the firm’s sales that are exported |
| <i>manager_exp</i> | Manager’s experience, in years |

Table 1 displays the variable definitions, distinguishing between dependent, independent, moderators, and control

variables. In a similar way as in Mendi and Costamagna (2017), and following the established literature, we include as controls a number of variables that account for observable firm characteristics, such as firm age, belonging to a group of firms, intensity of competitive pressure, the proportion of the firm’s revenues coming from foreign markets, or beginning operations as an informal firm. Additionally, in all specification we have included a full set of country dummies, as well as sector dummies. In particular, we classify firms into the following manufacturing sectors: Textiles, Garments, Food, Metals and Machinery, Electronics, Chemicals and Pharmaceuticals, Non-metallic and Plastic Materials, and Other Manufacturing.

As control variables, we include in all our specifications a full set of country and industry dummies, to account for unobserved country- or industry-specific factors. The variable *age* is the logarithm of firm age, in years. The *group* variable is a dummy that identifies whether a given firm belongs to a group of firms, and is intended to capture the differential effect of being part of a group of firms. Regarding competitive pressure from other firms, as explained in Mendi and Costamagna (2017), the firm is asked to report how many competitors it faces in the market for its product or service, and the options are none, one, two to five, and more than five. Export intensity is measured by *exportint*, which is the firm’s exports as a percentage of its revenues. *begin_informal* is a dummy variable that takes value one if the firm began operations in the informal sector, and *downstream* takes value one if the firm sells primarily to final customers, as opposed to other firms. Manager’s ability is measured by *manager_exp*, which is the manager’s experience, in years. We also control for whether the firm is located upstream or downstream in the value chain.

Table 2: Summary Statistics

| | mean | sd | min | max |
|-----------------------------------|--------|--------|-----|-----|
| Time management with officials | 0.144 | 0.208 | 0 | 1 |
| Log employees | 3.353 | 1.313 | 0 | 10 |
| Proportion non-production workers | 0.311 | 0.201 | 0 | 1 |
| Log firm age | 2.843 | 0.848 | 0 | 5 |
| Group | 0.111 | 0.314 | 0 | 1 |
| Intensity of competition | 0.809 | 0.264 | 0 | 1 |
| Downstream | 0.204 | 0.403 | 0 | 1 |
| Beginning informal | 0.104 | 0.305 | 0 | 1 |
| Export intensity | 11.630 | 25.477 | 0 | 100 |
| Manager experience | 2.873 | 0.709 | 0 | 4 |

Table 2 presents summary statistics of the variables used in the analysis below. For each variable, we report the average, standard deviation, minimum, and maximum. Notice that some of the variables are binary, and in particular, the dependent variable of interest is binary, which conditions the econometric technique to be used. Our sample size is 5474 observations.

5 Empirical analysis

The empirical analysis makes use of the World Bank’s Enterprise Survey data, which was implemented in a number of Latin American (and African) countries in 2006. Since the dependent variable is the proportion of time that senior management has to spend with government officials, which takes values between 0 and 1, and where the extreme values are not excluded. For this reason, we estimate a generalized linear model where the dependent variable has been logit-transformed. The following two subsections discuss the empirical findings regarding the effect of firm size, measured by

the logarithm of the number of employees.

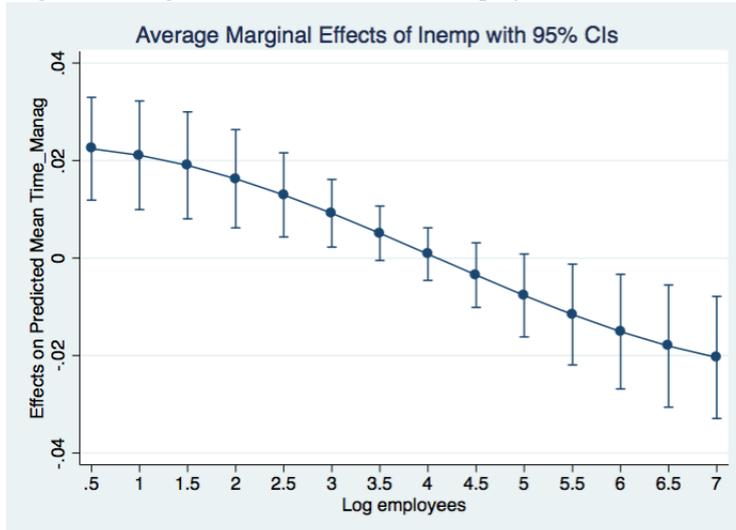
5.1 Main effects

Table 3 reports estimated coefficients of different specifications where the dependent variable is, in all cases, the percentage of the senior management’s time that is spent with government officials. First, column 1 includes $lnemp$ as the independent variable. The estimated coefficient is positive but not statistically significant at the 5% level. In the second column of the table, we have added the square of $lnemp$. In this case, the coefficient on $lnemp$ is positive and statistically significant at the 1% level, whereas that on the square of $lnemp$ is negative, and also statistically significant at the 1% level. This suggests the existence of an inverted-U relationship between the two variables.

In the third column of Table 3 we have added $nonprod$, that is the proportion of non-production workers in the total workforce. Indeed, our results may be simply picking up the fact that there are fixed costs of worker specialization, for instance setting up a separate functional department that may be freeing up senior management time, and only larger firms can afford this. The introduction of $nonprod$ is intended to control for that effect. As expected, the coefficient on $nonprod$ is negative, but it is not statistically significant. Moreover, the sign and statistical significance of the coefficients on $lnemp$ and this variable squared are similar to those in column 2. Finally, in column 4 we also include the square of $nonprod$, and the results do not change much: the coefficients on $nonprod$ and its square are not statistically significant, and those on $lnemp$ and its square retain their sign and statistical significance. This is consistent with our results not being driven by the existence of fixed costs of worker specialization within firms.

Our results point at the existence of a non-linear, inverted-U relationship between $time_manag$ and $lnemp$. In order to shed light on the shape of such relationship, we compute the marginal effects of $lnemp$ on $time_manag$ for different values of $lnemp$. This is done in Figure 1. We see that for low values of $lnemp$, the marginal effect is positive, whereas it is negative for sufficiently high values of $lnemp$, consistent with the aforementioned inverted-U relationship.

Figure 1: Marginal effects of number of employees on $time_mana$



Regarding the potential role of within-firm specialization of workers, we investigate more in depth the distribution of the proportion of non-production workers in our sample. In particular, Figure 2 plots the kernel density estimation of the distribution of $nonprod$. The most salient feature is that for a large percentage of firms the ratio non-production workers

Table 3: Effect of size on time spent with government officials

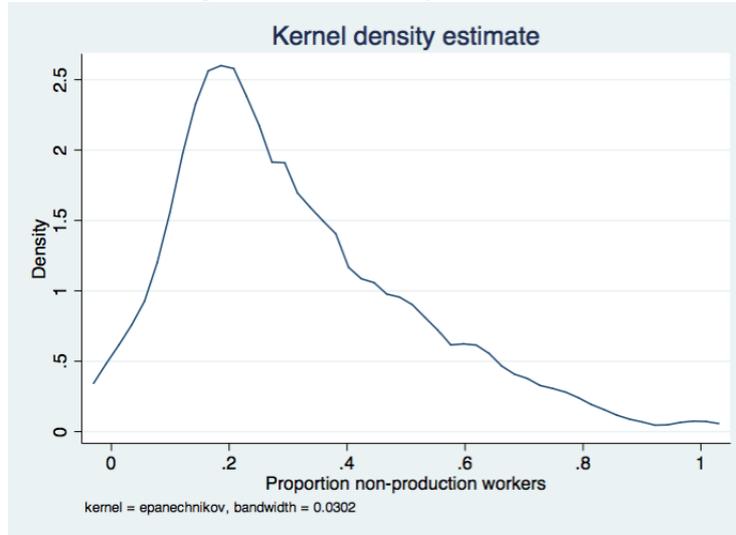
| | (1) | (2) | (3) | (4) |
|-----------------------------------|----------------------|----------------------|----------------------|----------------------|
| Log employees | 0.023 (0.020) | 0.281*** (0.094) | 0.326*** (0.087) | 0.326*** (0.087) |
| Log employees squared | | -0.034*** (0.012) | -0.041*** (0.011) | -0.041*** (0.011) |
| Proportion non-production workers | | | -0.019 (0.118) | -0.051 (0.387) |
| Prop. non-prod. workers squared | | | | 0.039 (0.438) |
| Log firm age | 0.061* (0.032) | 0.062** (0.032) | 0.061* (0.032) | 0.061* (0.032) |
| Group | -0.038 (0.078) | -0.014 (0.077) | -0.018 (0.078) | -0.018 (0.078) |
| Intensity of competition | -0.321*** (0.087) | -0.312*** (0.087) | -0.314*** (0.086) | -0.314*** (0.086) |
| Downstream | 0.021 (0.064) | 0.037 (0.064) | 0.039 (0.064) | 0.039 (0.064) |
| Beginning informal | -0.058 (0.078) | -0.051 (0.078) | -0.051 (0.078) | -0.051 (0.078) |
| Export intensity | -0.006*** (0.002) | -0.005*** (0.002) | -0.005*** (0.002) | -0.005*** (0.002) |
| Manager experience | -0.052 (0.034) | -0.055 (0.034) | -0.054 (0.034) | -0.054 (0.034) |
| Number of observations | 5394 | 5394 | 5390 | 5390 |

Standard errors in parenthesis are clustered at the regional level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

to total workers is in the neighborhood of 0.2. For this reason, in the analysis presented in Table 4, we will focus on firms such that the values of *nonprod* are close to this value.

Figure 2: Kernel density of *nonprod*



In particular, the first column of Table 4 reports the same results as the second column of Table 3, that is using the full sample. What we do in the second column is to focus on those firms whose proportion of non-production workers is in the interval $[0.1, 0.3]$, which is centered around 0.2. We expect these firms to be similar in terms of within-firm worker specialization. As shown in the second column of Table 4, the size of the estimated coefficients is larger than when using the full sample, and both of them are significant at the 1% level. In the third column of Table 4 we consider a more narrow interval also centered around 0.2, and the results are similar to the previous case. Finally, in the last column we consider those firms in the right tail of the distribution. We expect this group of firms to include a large proportion of firms that are very small, and thus, their values of *nonprod* may be very large. In this case, the coefficients are much smaller in size, and not statistically significant, even at the 10% level.

5.2 Subsamples

We now proceed to check for heterogeneity of the main effect across different subsamples. In particular, Table 5 considers the difference between upstream and downstream firms, and exporting and non-exporting firms. Similarly, Table 6 considers the difference between firms that began operations formally and informally, and innovative and non-innovative firms.

First, regarding the difference between upstream and downstream firms, in the case of upstream firms, the coefficients on *lnemp* and this variable squared are not statistically significant. In contrast, these coefficients have the signs consistent with an inverted-U relationship and are statistically significant at the 5% level (column 2). This is consistent with hypothesis 3. Columns 3 and 4 of Table 5 test hypothesis 2. In this case, consistent with hypothesis 2, we find that the relevant coefficients using the subsample of exporters (column 3) are not statistically significant, whereas those in column 4 are statistically significant at the 1% level.

Finally, in Table 6 we report estimated coefficients obtained splitting the sample into innovators and non-innovators (columns 1 and 2), and firms that began as formal or informal firms (columns 3 and 4). The distinction between innovative

Table 4: Role of the proportion of non-production workers

| | Full | Proportion of non-production workers: | | |
|--------------------------|----------------------|---------------------------------------|----------------------|-------------------|
| | sample | [0.1, 0.3] | [0.15, 0.25] | [0.3, 1] |
| | (1) | (2) | (3) | (4) |
| Log employees | 0.281*** (0.094) | 0.447*** (0.142) | 0.491** (0.217) | 0.121 (0.138) |
| Log employees squared | -0.034*** (0.012) | -0.055*** (0.018) | -0.058** (0.030) | -0.018 (0.018) |
| Log firm age | 0.062** (0.032) | 0.064 (0.047) | 0.065 (0.065) | 0.087* (0.046) |
| Group | -0.014 (0.077) | -0.078 (0.114) | -0.138 (0.173) | 0.034 (0.112) |
| Intensity of competition | -0.312*** (0.087) | -0.450*** (0.125) | -0.520*** (0.166) | -0.091 (0.126) |
| Downstream | 0.037 (0.064) | 0.116 (0.105) | 0.135 (0.144) | 0.004 (0.083) |
| Beginning informal | -0.051 (0.078) | -0.009 (0.104) | -0.034 (0.140) | -0.011 (0.126) |
| Export intensity | -0.005*** (0.002) | -0.012*** (0.003) | -0.013*** (0.003) | 0.000 (0.003) |
| Manager experience | -0.055 (0.034) | -0.053 (0.051) | -0.086 (0.079) | -0.057 (0.050) |
| Number of observations | 5394 | 2445 | 1254 | 2490 |

Standard errors in parenthesis are clustered at the regional level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

and non-innovative firms suggests that the inverted-U pattern is more clear for non-innovators, consistent with hypothesis 5, although the coefficients on $lnemp$ and this variable squared have the expected signs and are statistically significant, however at the the 10% level among innovators. Regarding informality, we do not find strong support for hypothesis 4, since the effect seems to be stronger among formal firms.

6 Conclusions

We analyze the Latin American subsample 2006 wave of the World Bank Enterprise Survey to search for evidence of the existence of a relationship between firm size and time that senior management spends with government officials. We find that the relationship is non-linear, exhibiting an inverted-U pattern, and that this pattern appears in a number of subsamples that we consider.

The low participation in political activities of the management of both small and large firms motivates the discussion of the following main issues: i) Businesses associations constitute an effective channel through which firms can get benefits from governments; ii) there are other informal mechanism to engage with government officials; iii) Governments are not willing to deal with managers directly. An extensive set of hypothesis can be made in order to satisfy the findings in the analysis. However, our evidence supports that other parties use non-market strategies in a more efficient way than management. Unfortunately this study cannot capture the entity making CPA (if any) facing policies that affect the

Table 5: Effect by subsamples: Location in value chain and exporting status

| | Upstream (1) | Downstream (2) | Export (3) | Non-export. (4) |
|--------------------------|---------------------|----------------------|----------------------|----------------------|
| Log employees | 0.091 (0.186) | 0.327*** (0.121) | 0.162 (0.102) | 0.696*** (0.215) |
| Log employees squared | -0.018 (0.021) | -0.036** (0.017) | -0.021 (0.013) | -0.080*** (0.029) |
| Log firm age | 0.174*** (0.063) | 0.038 (0.036) | 0.067* (0.035) | 0.042 (0.069) |
| Group | 0.050 (0.123) | -0.064 (0.100) | 0.017 (0.085) | -0.148 (0.183) |
| Intensity of competition | -0.282 (0.186) | -0.320*** (0.097) | -0.489*** (0.101) | 0.317* (0.168) |
| Downstream | -0.162 (0.194) | 0.064 (0.069) | | |
| Beginning informal | -0.152 (0.146) | -0.036 (0.091) | 0.003 (0.091) | -0.160 (0.151) |
| Export intensity | -0.001 (0.002) | | -0.005** (0.002) | -0.013* (0.007) |
| Manager experience | -0.090 (0.081) | -0.033 (0.039) | -0.056 (0.039) | -0.042 (0.072) |
| Number of observations | 1308 | 4086 | 4185 | 1209 |

Standard errors in parenthesis are clustered at the regional level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Table 6: Effect by subsamples: Beginning informal and innovativeness

| | Non-innovat. (1) | Innovative (2) | Formal (3) | Informal (4) |
|--------------------------|----------------------|----------------------|----------------------|--------------------|
| Log employees | 0.567*** (0.214) | 0.193* (0.102) | 0.254** (0.099) | 0.438 (0.267) |
| Log employees squared | -0.069** (0.030) | -0.025* (0.013) | -0.031** (0.013) | -0.057* (0.033) |
| Log firm age | 0.046 (0.068) | 0.060* (0.035) | 0.060* (0.034) | 0.057 (0.088) |
| Group | -0.239 (0.146) | 0.057 (0.090) | -0.025 (0.080) | 0.199 (0.300) |
| Intensity of competition | -0.637*** (0.153) | -0.103 (0.104) | -0.365*** (0.092) | 0.224 (0.256) |
| Downstream | 0.301** (0.125) | -0.104 (0.072) | 0.082 (0.069) | -0.297* (0.155) |
| Beginning informal | -0.361** (0.175) | 0.073 (0.087) | | |
| Export intensity | 0.002 (0.005) | -0.006*** (0.002) | -0.006*** (0.002) | 0.001 (0.005) |
| Manager experience | 0.065 (0.076) | -0.088** (0.038) | -0.036 (0.036) | -0.204* (0.115) |
| Number of observations | 1503 | 3883 | 4803 | 591 |

Standard errors in parenthesis are clustered at the regional level.

*** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

business environment in the sample of LAC. Concluding, future research may go deeper on the CPA and agents making political actions that better influence on policymaking.

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