

The Effect of Skilled Labour Scarcity on Law-abiding Organizational Climates in Emerging Markets: The Moderating Role of Managerial Ties

Track: Culture, Social, and Ethical Issues

Key words: law-abiding climate, skilled labour scarcity, organizational adaptability, managerial ties, emerging markets, Mexico

Abstract: Scarcity of skilled labour in the emerging market context is considered a severe challenge facing organizations since it limits the quality and depth of their labour force. Despite the prevalence of the issue, the relationship between skilled labour scarcity at the organizational-level and unlawful organizational conduct, a problematic behaviour that plagues emerging markets, has not been examined. In this paper, we investigate this relationship, hypothesizing that skilled labour scarcity negatively affects law-abiding organizational climate, a measure of an organization's adherence to the rule of law, by reducing an organization's ability to adapt to its environment. Furthermore, we explain the impact that managerial ties have on this relationship, hypothesizing how ties with industry firms and ties with government differently impact the relationship between skilled labour scarcity and law-abiding climate. Hypotheses were tested with survey data collected from 144 Mexican companies.

Introduction

Unlawful organizational conduct is a pervasive problem in emerging markets, with rampant corruption inhibiting development by negatively affecting FDI and economic growth, misdirecting entrepreneurial talent, and increasing rates of poverty and inequality (Doh et al., 2003; Kaufmann, 1997). One perspective to explain the prevalence of unlawful organizational conduct in emerging markets is through the lens of anomie theory, which says that managers feel corrupt business practices are justified in response to institutional conditions that limit the competitiveness of organizations (Mohammad & Husted, 2019; Martin et al., 2007). In line with this perspective, research has established that institutional contexts characterized by resource scarcity tend to foster unlawful conduct (Staw & Sz wajkowski, 1975; Martin et al., 2007).

However, this stream of research has narrowly conceptualized resources as those tangible in nature, such as financial resources and proceeds from profits. Extant research has not examined the relationship between scarcity of skilled labour, an intangible resource, and unlawful organizational conduct. Scarcity of skilled labour, defined as skilled workers and managers (Chacar et al., 2010; Liou et al., 2017), is considered a key source of competitive disadvantage for organizations in emerging markets (Pfeffer, 1994; Porter, 1990). The problem has persisted due to lower levels of economic development, a lack of opportunities for education, and an inability for educated and trained individuals in the labour market to be absorbed into positions matched by their expertise (Liou et al., 2017). As such, a significant challenge of human resources management (HRM) in emerging markets is to ensure that the firm has an adequate talent pool for achieving its objectives (Horwitz & Budhwar, 2015).

Our paper examines the relationship between skilled labour scarcity at the organizational-level and law-abiding climate, an important and overlooked direction for research that has the potential for uncovering how a key institutional deficiency in the emerging market context drives organizations to be unlawful. We draw on the lens of anomie theory to explain how a lack of skilled labour limits a firm's ability to be competitive and achieve desired performance while remaining in adherence to the law, causing them to resort to unlawful conduct to achieve desired performance.

To approximate unlawful organizational conduct, we follow the approach of previous research (Mohammad & Husted, 2019) and use the concept of law-abiding climate, a term that denotes the "law and code" ethical climate postulated by ethical climate theory. These climates are characterized by the belief among managers that ethical decisions should be made on the basis of externally imposed societal rules, such as the law and professional codes of conduct (Martin & Cullen, 2006). A law-abiding climate in our study acts as the moral compass that inhibits transgressions of the law by firms, such that firms devoid of a law-abiding climate are more likely to engage in unlawful conduct. Anomie theory is well suited as the theoretical mechanism to explore how skill labour scarcity impacts law-abiding climate due to its ability to conceptualize a context in which firms are faced with conditions that render law-abiding means to achieve desired ends unfeasible (Merton, 1968). We contribute to the literature in two important ways.

First, the paper uncovers a negative relationship between skilled labour scarcity at the organizational level and law-abiding climate. Furthermore, we explain and confirm a theoretical mechanism for how a lack of skilled labour limits the performance of firms, and thus induces a state of anomie that results in weak law-abiding climates. We show that skilled labour scarcity impacts law-abiding climate by negatively effecting organizational adaptability, defined as an organization's ability to move quickly toward new opportunities, to adjust to volatile markets, and avoid complacency (Birkinshaw & Gibson, 2004).

This theoretical mechanism provides the baseline relationship for examining the role that managerial ties play in influencing the relationship between skilled labour scarcity and law-abiding climate, our second contribution. Managerial ties, defined as ties that managers have with individuals outside their firm, are formed out of personal connections that a manager builds with external actors. It is conventional wisdom that the social capital embodied in managerial ties are pivotal in the emerging market context, serving as a key means of adaptation to institutional deficiencies (Li et al., 2008), yet the question of how exactly ties matter for a firms strategizing has largely been unexplored (Powell, 1996: 297). In order to more deeply situate managerial ties in the realities of the emerging market context, we explain how two distinct types of managerial ties, industry ties (ties that managers of other firms) and government ties (ties with government

officials) improve an organizations ability to adapt to its environment and the implications this ability to adapt has for a law-abiding climate. Figure 1 depicts the complete conceptual model.

< Figure 1 about here >

Our paper is important because it highlights the importance of human resource development for fostering law-abiding organizational climates in the emerging market context, while pointing to the role that organizations and government can play in this process. Our findings suggest that organizations can reduce anomie within firms, and thereby foster law-abiding climates, through skills training and education and the fostering of inter-firm managerial relationships. Furthermore, they emphasize the need for government to enact policies that foster human resource development at the national level, which would foster law-abiding organizational climates by addressing the institutional causes of skilled labour scarcity that result in anomie. In the next section, we explain our hypotheses, examining first how skilled labour scarcity affects law-abiding climate, and then deepen the understanding of this relationship by explaining that organizational adaptability is a key mediating factor. Next, hypothesize the role that managerial ties have on this relationship. After that, we explain our empirical approach and results. Lastly, we conclude by discussing the implications of our study and its limitations.

Theoretical Background and Development of Hypotheses

Law-abiding climate

Ethical climates are conceptualized as the shared perceptions of what constitutes ethically correct behaviour and how ethical issues should be handled in an organization (Victor and Cullen, 1988). They determine the norms and ethical decision criteria that underlie a broad range of decision-making and subsequent behaviours of firms in response to ethical dilemmas (Victor and Cullen, 1988). By exerting significant influence on the behaviour of members of an organization (Schminke, Arnaud, & Kuenzi, 2007), ethical climates underlie the unlawful conduct of firms.

While there are five possible ethical climates based on different normative systems that can exist within an organization (Martin & Cullen, 2006), we focus solely on law-abiding

climate for three reasons. First, a law-abiding climate is telling of how conducive a firm's norms regarding compliance are to engaging in unlawful acts. Second, law-abiding climates have been empirically proven to be amongst the most desirable ethical climates due to their positive association with ethical behaviour (Fritzsche, 2000) and negative association with unethical behaviour (Wimbush, Shepard, & Markham, 1997). Third, law-abiding climates are likely to exist in firms, despite the presence of other ethical climates (Victor & Cullen, 1987). The law-abiding climate is distinct in that it is motivated by external societal rules that are mandated for firms, such that it is likely to exist in a firm even when it is not the dominant ethical climate. This is evidenced by the relatively high correlations between law-abiding ethical climate and the other ethical climates (Victor and Cullen, 1988).

Skilled labour scarcity and anomie

Anomie theory posits that structural conditions in an environment, coupled with the societal values that emphasize monetary notions of success, cause actors to experience anomie, a state in which they accept the breaking of societal rules as a normalized practice (Durkheim, 1966; Bernard, 1987). As such, the theory captures how a firm's perception of externally imposed rules, such as those defined by the law, are influenced by their environment (Cullen, Parboteeah, & Hoegl, 2004). In light of anomie, organizations develop work climates that encourage unethical conduct (Cohen, 1993). Faced with contextual factors that compromise their ability to achieve performance goals, managers feel justified in taking any means to achieve desired ends. Accordingly, illegitimate practices such as breaking the law become normalized as a means of adaptation to the environment (Martin et al., 2007). In environments characterized by resource scarcity, organizations are forced to cope with the limitations placed on them due to a lack of available resources, which reduces their ability to achieve desired performance goals. From the perspective of anomie theory, the reason that resource-scarce environments are linked to unlawful organization conduct is because they are used by firms as a means of achieving a level of performance that they otherwise would not be able to (Staw & Sz wajkowski, 1975; Johnson, Martin, & Saini, 2011). Since illegal and corrupt acts are contrary to the norms and ethical decision criteria of a law-abiding climate, unlawful conduct weakens an organization's law-abiding climate.

While this argument has conventionally been made in regards to tangible resources such as financial capital (Martin et al., 2007), a similar argument can be made in regards to skilled labour, an intangible resource, because its absence also compromises an organization's performance. Skilled labour is critical for organizations to obtain a competitive advantage (Pfeffer, 1994) because the activities needed for achieving high performance, such as innovation and new product development, the building of strong personal relationships with clients, and the implementation and expert use of technologies (Bartlett & Ghoshal, 2002), all depend on skilled labor. Hence, we conclude that a scarcity of skilled labour reduces organizational performance. Consequently, firms experience a state of anomie, and feel that unlawful conduct is justified to achieve a level of performance that otherwise would be unattainable.

Firms are especially likely to experience anomie when faced with skilled labour scarcity within the institutional context of emerging markets, for two reasons. Firstly, in these contexts, the dearth of skilled labour is largely a product of institutional factors, such as the education system and labor market inefficiencies, which means that organizations can often do little to improve their labour force. Secondly, weak institutional supports for ensuring lawful conduct (North, 1991) make it especially feasible for organizations to engage in unlawful conduct as a means of improving the organization's competitive position. For example, organizations may pay bribes to government actors to bypass regulation or gain exclusive access to resources such as contracts or permits that will help them better compete. Since a propensity to engage in unlawful conduct would be reflected in a weaker law-abiding climate, we hypothesize the following:

Hypothesis 1: The scarcity of skilled labour in an organization is negatively associated with law-abiding organizational climate.

Next, we explain how organizational adaptability mediates the negative relationship between skilled labour scarcity and law-abiding organizational climate.

The mediating effect of organizational adaptability

The necessity of organizations to adapt to their environment to ensure survival has long been a core premise of management research (Simon & March, 1976; Schumpeter, 2010). The ability to adapt requires that organizations make required strategic adjustments triggered by changes to their external environment (Siggelkow & Levinthal, 2003). Adaptable organizations

are ambidextrous, which means they are able to effectively balance the trade-off between "exploitation", the use of existing knowledge, skills and processes to maintain their level of success, and "exploration", the creation of new knowledge, skills, and processes through search, risk taking, and experimentation for achieving future growth (March, 1991). Furthermore, adaptable organizations require the ability to value, assimilate and apply new knowledge for learning and problem solving (Cohen and Levinthal, 1990; Volberda, Foss, and Lyles, 2010). Fitness to change in uncertain environments requires that organizations, in response to environmental triggers that threaten their prosperity, gather new information and combine it with their existing knowledge base to make necessary adjustments.

Organizational adaptability requires that an organization possess an abundance of skilled labour since adaptations to change require a coordinated effort within the organization, across levels of management and functional areas (Birkinshaw & Gibson, 2004). Senior managers enable organizational adaptability by brokering connections, creating organizational structures that foster coordination, prioritizing key organizational challenges, and directing organization-wide efforts to find solutions. Similarly, senior management structures the organization to allow for knowledge to be shared and mobilized across the organization for the purpose of problem solving, including new knowledge that is obtained by any division or functional area (Nahapiet & Ghoshal, 1998). For example, senior managers are responsible for the design of both formal (e.g. project task forces) and informal (e.g. organizational culture) social integration mechanisms.

While senior management sets broad directives and structures the organization for adaptability, the direct efforts of middle managers and employees with specialized skills also ensure that organizations can adapt to a changing environment (Taylor & Helfat, 2009). In light of their proximity to the production process, customers, and the general day-to-day operations of the organization, middle managers and other skilled employees decide how to go about achieving desired goals set by senior managers, including experimentation with methods and processes to achieve desired change. Furthermore, this proximity, as well as the more specialized nature of their roles, may also mean they have the requisite knowledge bases that need to be expanded on and leveraged to find solutions to novel problems. Skilled labour thus underlies an organization's ability to adapt.

Hypothesis 2a: The scarcity of skilled labour in an organization is negatively associated with organizational adaptability.

Due to the scarcity of skilled labour that characterizes emerging markets, organizations face an inability to adapt to competitive pressures in their environment. Faced with technological, political, and economic changes, organizations may not be sufficiently ambidextrous to define new operational approaches or possess adequate absorptive capacity to update their knowledge bases to address evolving challenges. As a result, the survival and prosperity of organizations is threatened as organizations experience losses, including opportunity costs associated with forgone opportunities that require timely adaptation (Witt & Lewin, 2007). In emerging markets where skilled labour scarcity is a product of institutional deficiencies, organizations accept skilled labour scarcity and the inability to adapt to challenges in the business environment as part of doing business in the context.

Unable to achieve their performance goals due to a lack of adaptability, managers perceive the law to be impractical because it prevents them from pursuing illegal yet potentially profitable opportunities. As a result, the rule of law loses its regulatory force and organizations experience anomie, which propels them to engage in unlawful conduct to ensure their survival and prosperity. Since unlawful conduct is contrary to norms and ethical decision criteria that are in adherence to the law, weaker law-abiding climates result. Accordingly, we hypothesize that scarcity of skilled labour, through its effect on organizational adaptability, has a negative impact on a firm's law-abiding climate.

Hypothesis 2b. the relationship between skilled labour scarcity and law-abiding organizational climate is partially mediated by organizational adaptability.

The moderating effect of managerial ties

In the absence of a strong institutional environment, managers in emerging markets are faced with greater uncertainty since they are responsible for activities that would be performed or at least facilitated by the state, such as the interpretation of regulations and enforcement of contracts (Khanna & Palepu, 1997). Managerial ties provide organizations with a means of dealing with the uncertainty caused by a lack of institutional supports for supporting economic exchanges, such as transparent and predictable regulation and a strong legal system (Peng &

Heath, 1996), by embedding economic exchanges in interpersonal connections rooted in trust between actors (Uzzi, 1997). By providing organizations access to scarce resources and information that would otherwise be unavailable, managerial ties are an effective means of adaptation to the institutional deficiencies of emerging markets (Peng and Luo, 2000).

One kind of external managerial tie are those that managers of an organization can form with managers of other organizations, which we denominate “industry ties.” These ties include ties with managers of suppliers, buyers, and competitors, all of which allow for reducing uncertainty. Strong ties between managers, for example, allow the organization access to a steady and dependable stream of quality inputs from suppliers, customer loyalty and repeat purchases from buyers, and allow for joint initiatives for achieving mutually beneficial outcomes with competitors in the absence of enforceable contracts. By reducing the overall level of uncertainty faced by an organization, industry ties make it more plausible for firms to effectively adapt to their environment. Furthermore, industry ties can directly improve organizational adaptability by acting as a conduit through which knowledge between firms is transferred and establishing a level of trust that allows for the kind of fluid collaboration between organizations that is conducive for effective adaptation. As a result, industry ties partially offset the inability of firms to adapt that is attributable to a scarcity of skilled labour. Since an organization's ability to adapt is improved when it possesses industry ties, the organization will be less likely to experience anomie and engage in unlawful conduct as a means of improving its performance, which will be reflected in a stronger law-abiding climate. Accordingly, we propose the following hypothesis:

Hypothesis 3a: The negative relationship between scarcity of skilled labour and law-abiding organizational climate is weakened to the extent that an organization's managers utilize industry ties.

While government ties are similar to industry ties because they enable a firm to better adapt to their environment, government ties differ in their impact on law-abiding climate when an organization is faced with skilled labour scarcity. Government ties allow an organization to co-opt a source of environment uncertainty (Pfeffer & Salancik, 1978) rather than enabling active collaboration between actors for mutual adaptation to the exigencies of the external environment. The source of environmental uncertainty they allow an organization to co-opt

manifests from the poorly functioning government regulation that characterizes emerging markets. In the emerging market context, government regulation is often arbitrary with government provisioned resources such as contracts and licenses being granted in an unpredictable manner that lacks transparency (Khanna and Palepu, 1997). A poorly functioning regulatory system gives rise to corruption, allowing organizations to make corrupt payments to government officials for exclusive access to resources. Such payments effectively reduce the environmental uncertainty experienced by a firm at the expense of other organizations, allowing the firm to better adapt to its environment. Ties that managers of an organization have with government officials enable unlawful exchanges as managers are able to exercise informal, personal relationships to obtain preferential regulatory treatment and political concessions, often through illegal payments (Galang, 2012). Accordingly, we reason that in the face of skilled labour scarcity, government ties better enable an organization to act on its experience of anomie and engage in illegal conduct as a means to remain competitive, re-enforcing organizational conduct that results in a weak law-abiding climate.

Hypothesis 3b: The negative relationship between scarcity of skilled labour and law-abiding organizational climate is strengthened to the extent that an organization's managers utilize government ties.

Figure 1 depicts the complete theoretical model.

Insert Figure 1 about here

Data & empirical approach

Research setting

Mexico is a relevant context for our study given the wide-spread disregard for the law that has long plagued the country (Knight, 1996; Wilhelm, 2002). For instance, 40% of Mexican entrepreneurs agree that the most effective way to gain a competitive advantage is through bribes and connections (Mexican Institute for Competitiveness, 2015). The prevalence of unlawful firm conduct in Mexico can be seen most tangibly by the incidence of corruption, which is estimated

to cost the country five percent of its GDP and is considered a key contributing factor to the lack of competitiveness of Mexican firms (Mexican Institute for Competitiveness, 2015). Mexico, like many other emerging markets, also faces a scarcity of skilled labour in the workforce that translates into skilled labour scarcity at the organizational-level (OECD, 2017).

Data collection

We obtained our survey sample from a directory of firms in the *American Chamber of Commerce of Mexico* (Amcham), a non-profit organization whose members tend to have a trade relationship with the United States or are the Mexican subsidiaries of U.S firms. The chamber's members typically consist of small to medium size firms, justifying our single-respondent approach (Li & Atuahene-Gima, 2002; Phillips, 1981) in which a single executive or manager at each firm was asked to answer Likert-scale questions regarding the experience of the firm. Surveys were sent primarily to firms in Mexico's three major industrial centers: Monterrey, Guadalajara, and Mexico City. Respondents were incentivized to answer the survey by being placed in a lottery to win one of three gift cards to a popular department store valued at 2500 Mexican pesos (about US\$125.00). Although 220 responses were obtained by email and regular mail, out of a total of 1,330 firms (a response rate of about 17%), a total of 144 responses were useable for the purpose of this study after taking into account missing information. Our response rate is comparable to other studies in the Latin American context (Carneiro, da Silva, & da Rocha, 2011; Ramos-Garza, 2009) and the relative number of useable responses compared to total responses reflects the tendency in Mexico for surveys to be returned incomplete (Merino & Vargas, 2013).

While our data suffers from the limitations inherent in a single respondent, cross-sectional design, we believe that its use for our study is justified. Firstly, our key contribution in uncovering and explaining the relationship between skilled labour scarcity and unlawful organizational conduct is novel and unexplored. This is partly due to the second reason we feel that the use of our data is justifiable, which is the limited access to data on unlawful organizational conduct. The sensitive nature of the topic, which makes it subject to social desirability bias, makes it difficult to access data relating to unlawful conduct. Finally, the use of our data is justified because Mexico is a rare empirical context in which to conduct such a study. There is a limited amount of management research focused on the Latin American context, especially studies that involve primary data collection. Much of this is likely due to the difficulty

in obtaining an adequate number of survey responses, which is found to be especially true of Mexico (Merino & Vargas, 2013).

The survey instrument consists of items drawn from existing constructs that have been adapted to fit the Mexican context. The adaptation process consisted of translating items from English to Spanish, while maintaining their intended meaning. In a few cases, minor changes were made to increase their relevance to Mexico. An extensive pre-testing process ensured the survey's external validity through in-depth interviews with Mexican experts, including two executives, four business professors, and four executive MBA students currently working as managers. Final face validity testing was conducted with a panel of Mexican PhD students. A back translation of the Spanish language survey instrument to English was conducted and differences were reconciled by the research team.

A number of steps were taken to reduce the risk of socially desirable responses, a risk associated with doing ethics related research (Randall & Fernandes, 1991). Online distribution allowed for the self-administration of the survey and the instrument contained a strongly worded guarantee of anonymity, both of which are recommended for surveys dealing with sensitive information (Reinikka & Svensson, 2006). Partnership with a Mexican business school and formal sponsorship by the American Chamber of Commerce provided the survey with credibility and helped to establish trust as the respondents are likely familiar with both organizations.

Measures

Our measure of *law-abiding climate* was obtained from the original law-and-code scale of Victor & Cullen (1988), consisting of four items that capture the extent to which laws and professional standards are taken into consideration when making decisions. More details on this and the other measures can be found in the Appendix.

Scarcity of skilled labour is a two-item measure derived from Miller & Friesen's (1982) broad measure of resource availability that gauges skilled labour and managerial talent availability in the organization, as well as capital and material supplies. For this study, we modify the original measure to include only the items of skilled labour and managerial talent. Items were reverse coded to measure scarcity instead of abundance.

Organizational adaptability is a three-item measure adapted from Jambulingam et al. (2005). The items corresponding to the measure evaluate an organization's ability to meet the needs of their business environment.

Our measure of *industry ties* was obtained from the original scale of Peng & Luo (2000), consisting of three items that measure the extent to which top managers at an organization have utilized personal ties, networks, and connections in the past three years with managers of other organizations. *Government ties* consists of a measure also adapted from Peng & Luo (2000). It consists of a two items that measure the extent to which top managers at an organization have utilized personal ties, networks, and connections with government officials.

Organizational size and endowment of slack resources are thought to determine ethical climate perceptions (Martin & Cullen, 2006). To incorporate these factors, we included the number of employees and sales, respectively, as control variables. Data on sales and number of employees were both obtained from the AMCHAM directory. Also included as a control is environmental hostility, a three-item measure adapted from Covin & Slevin (1989). Characterized as intense competition, harsh business climates, and a lack of exploitable opportunities, environmental hostility is known to be related to unlawful conduct (Zahra et al., 2005). We controlled for firm age and also industry-specific effects, which were coded using dummy variables based on their two-digit SCIAN classification (Sistema de Clasificación Industrial de América del Norte), the Mexican counter-part to NAICS (North American Industry Classification System). These classifications were obtained from SIEM, a government operated database of Mexican businesses. Firms not listed in SIEM were categorized through manual inspection. Lastly, we also controlled for the state-specific effects through the use of dummy variables coded based on whether the organization is headquartered in the states of Mexico City, Nuevo León, or Jalisco. Table 1 displays correlations between constructs and descriptive statistics. The low to moderate correlations suggest that multicollinearity is not a problem.

Insert Table 1 about here

Construct validation

A confirmatory factor analysis (CFA) was used for construct validation. Distinct factors corresponding to each construct were produced with eigenvalues greater than 1.0, accounting for

76% of the total variance. Each construct is internally consistent, with composite reliability values being equal or greater than 0.78 (Nunnally & Bernstein, 1994). All items loaded significantly on their respective constructs with factor loadings ranging from 0.71 to 0.93, and there were no significant cross loadings (all were less than 0.18 in magnitude). This indicates that the multi-item scales measure independent constructs, supporting discriminant validity. Furthermore, the recommended AVE (average variance extracted) benchmark of 0.50 was surpassed for each construct (Formell & Larcker, 1981). The measures, their individual item loadings, as well as the composite reliabilities and AVE statistics, are reported in the Appendix.

Tests for sources of bias

We conducted multiple statistical tests to rule out common method bias (CMB). CMB represents the risk that results can be biased in an unpredictable manner when data on both the independent and dependent variable are collected from the same survey instrument.

Two iterations of Harman's single factor test were conducted to test for CMB. Firstly, we used another CFA to compare our model (chi-square = 44.07, df =49) to a model constrained to a single factor (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). A significantly worse fit for the single factor model (chi-square = 1052.01, df=119) provided evidence against CMB. Secondly, we used a procedure recommended by Podsakoff, MacKenzie, & Podsakoff (2012) based on adding another common methods factor to the original measurement model. The factor accounted for only 3.6% of the model variance. Furthermore, the factor loadings of all items were below 0.27 with the exception of a single item. The common methods factor also did not exhibit internal reliability or discriminate validity, producing a composite reliability of 0.60 and an AVE of 0.17, which provides further support that our results do not suffer from CMB.

Next, we conducted the correlational marker technique as outlined by Lindell & Whitney (2001) in order to test for CMB. The technique uses a marker variable, which is a variable that is theoretically unrelated to the subject variables in the study and has a low level of correlation with those variables. The marker variable is used to estimate potential CMB and then attenuates the correlation between subject variables by adjusting them for the effect of the bias. While our survey did not include an intended marker variable, a specific item that asked whether managers of a firm adopt a conservative view when making major decisions was identified *post hoc* as being theoretically unrelated to the subject variables, the criteria of a marker variable. The

correlation between the marker variable and the dependent variable ($r = -0.004$) is low and lacks statistical significance, unlike the correlations between the independent variables contained in the survey and the dependent variable, which are all significant at $p = 0.05$ or greater. Furthermore, the correlations between the marker variable and the independent variables are all low, ranging from -0.062 to 0.003 , in support of its discriminant validity. After performing the partial correlation adjustment of the independent variables with the dependent variable, all bivariate correlations remained statistically significant, suggesting that the results cannot be attributed to CMB.

We also attempted to detect various response biases. Results of chi-square tests demonstrated no significant differences between respondents and non-respondents based on geographic location (state) or firm size. A series of ANOVA tests were conducted to test for differences in responses between early respondents (those who answered the survey within the first three email mailings) and late respondents (those who answered the survey after the first three email mailings), revealing no significant differences. Lastly, ANOVA tests were also conducted to test for differences between email respondents and the ten responses received through physical mail, again, revealing no significant differences across all survey items.

Hypothesis testing

A series of hypotheses were tested using OLS moderated regression, the results of which are featured in Table 2. The variance-inflation factors (VIF) for the key variables across all models ($VIF < 2.5$) are all within acceptable levels, indicating that the variables do not suffer from multicollinearity.

Insert Table 2 about here

Model 1 was used to test hypothesis 1, employing law-abiding climate as the dependent variable. The coefficient for skilled labour scarcity is negative and significant in model 1 ($-0.219, p < 0.05$), as it is across all applicable models, providing support for the negative relationship between skilled labour scarcity and law-abiding climate.

Models 1, 2, and 3 together follow the Baron and Kenney (1986) for testing the mediation effect suggested by hypothesis 2a and 2b. From Model 2, in which adaptability is the dependent

variable, the coefficient of skilled labour scarcity is negative and statistically significant (-0.259, $p < 0.01$), indicating a negative relationship between skilled labour scarcity and adaptability, in support of hypothesis 2a. From Model 3, which differs from Model 1 due to the inclusion of adaptability as a variable, the coefficient of skilled labour is no longer significant and reduces in magnitude as compared to its coefficient in Model 1. The coefficient of adaptability in Model 3 is also positive and highly significant (0.400, $p < 0.001$). In conjunction with evidence in support of the negative direct effect of skilled labour scarcity on adaptability (Model 2), the loss of statistical significance for the coefficient of skilled labour and its reduction in magnitude when adaptability is included in the model (Models 1 and 3) provide support for the mediation effect of hypothesis 2b. Two additional methods were used to test the mediation effect of hypothesis 2, the Sobel test (Sobel, 1982) and a bias-corrected bootstrap procedure suggested by Preacher and Hayes (2004). Both methods produced results that support the hypothesis that adaptability mediates the relationship between skilled labour scarcity and law-abiding climate ($Z_{\text{Sobel}} = -1.92$, $p = 0.055$; the 95% bootstrapped confidence interval was in between -0.224 and -0.0087, and thus did not include zero). The proportion of the total effect of skilled labour scarcity on law-abiding climate mediated by adaptability is found to be 47%.

Models 4 and 5 address hypothesis 3a. Model 5 introduces industry ties as a variable, which has a negative and significant coefficient (-0.232, $p < 0.05$), indicating that the use of industry ties by an organization's managers is negatively associated with its law-abiding climate. Model 5 differs from Model 4 due to the inclusion of the interaction between skilled labour scarcity and industry ties. The coefficient of industry ties remains significant and negative (-0.249, $p < 0.01$), and moreover, the interaction term is positive and significant (0.201, $p < 0.05$). The conditional interaction terms evaluated at different levels of industry ties shed light on the range of values at which the moderating effect occurs. Whereas the interaction term at one standard deviation above the mean of industry ties is not significant, the interaction term at one standard deviation below the mean ($\beta = -0.418$, $p < 0.001$) and at the mean ($\beta = -0.216$, $p < 0.05$) are significant. A plot of the significant conditional interaction effects is plotted in figure 2 to facilitate interpretation of this result. The differences in the slopes of the lines in figure 2 indicate that the effect of skilled labour scarcity on law-abiding climate is weaker for firms with industry ties at the mean relative to one standard deviation below the mean. Taken together, the results support hypothesis 3a that the industry ties possessed by a firm weakens the negative effect of

skilled labour scarcity on law-abiding climate, but with an added caveat; the moderation effect applies only when the level of industry ties is increased from an initially low level.

Models 6-7 address hypothesis 3b. Model 6 introduces government ties, which has a positive and marginally significant coefficient (0.184, $p < 0.1$). Model 7 differs from Model 6 due to the inclusion of the interaction between skilled labour scarcity and government ties. The coefficient of the interaction term is not significant in Model 7 ($p > 0.1$), which fails to support hypothesis 3b.

Model 8 is the complete model which includes both interactions. The interaction of industry ties and skilled labour scarcity is positive and significant ($\beta = 0.191$, $p < 0.05$), in support of hypothesis 3a which predicts that the negative relationship between skilled labour scarcity and law-abiding climate is weakened to the extent that an organization's managers utilize industry ties. Again, the interaction of government ties and skilled labour scarcity is not significant, which fails to support hypothesis 3b. Overall, the results of our analysis provide support for hypothesis 1,2(a-b),3a, but not hypothesis 3b.

Discussion

Theoretical implications

Our motivation for the study was to examine how law-abiding organizational climates are affected by the scarcity of skilled labor, situations which are quite common in emerging markets. Our results confirm that law-abiding climate is negatively related to the scarcity of skilled labor, as partially mediated by organizational adaptability. Furthermore, the use of industry ties seems to compensate for the scarcity of skilled labor by weakening the negative relationship between scarcity and law-abiding climate. Despite our theoretical expectations, government ties do not appear to affect the relationship between skilled labor scarcity and law-abiding climate.

Our findings contribute to the theory of organizational climate, specifically law-abiding climate, by providing insights into the influences that generate law-abiding climates. Organizational adaptability has never been associated with a law-abiding climate, but we find evidence that organizational adaptability partially mediates the relationship between the lack of skilled labor and a law-abiding climate. As skilled labor becomes more scarce, organizations become less adaptable. The condition of the scarcity of skilled labor pervades emerging markets, like Mexico. However, adaptable organizations are better able to comply with the law as they

undergo changes necessary to achieve desired performance and thus adaptability encourages the development of law-abiding climates.

Moreover, the paper makes a contribution to the literature on organizational environments through its examination of the external ties of managers, which are an integral resource to firms in the emerging market context. Our findings indicate that managerial networks in the form of industry ties can supplement organizational weaknesses, such as the lack of skilled labor (Zack, 1999). Hence, industry ties can compensate for a lack of skilled labor. Industry ties can provide important social capital in the form of information resources and normative support for the construction of a law-abiding climate. However, government ties do not provide additional social capital that either facilitates or weakens a law-abiding climate.

Finally, the paper extends anomie theory by applying it to the context of scarce skilled labor, where firms are pressured into undermining a law-abiding climate within the firm. In the Mexican evidence, the lack of skilled labor leads firms to experience anomie, and in turn, develop organizational climates that permit unlawful conduct. Only those firms that are able to compensate for scarce skilled labor through the use of industry ties are able to reduce the severity of anomie they experience and maintain or strengthen their law-abiding climates.

Practical implications

Beyond the contributions to the literature and theory development, the paper has important implications for managers. We explained that when skilled labour scarcity compromises the ability of organizations to achieve desired profitability within the limits of the law, organizations experience anomie. As a result, firms seek out illegitimate means to achieve desired goals, which weakens their law-abiding climate. Based on this assertion, managers should consider human resources development efforts in the form of employee training and education as a means for developing more humane and ethically inclined organizations that are focused on obeying the law. While the literature has made this point in regards to human resources development efforts that are directed at increasing the ethical orientation at both the employee and organizational level, such as ethical stewardship and CSR-centric HRM (Caldwell, Truong, Linh, and Tuan, 2011; Jamali, Dirani, and Harwood, 2015), our results suggest that amidst the unique challenges presented in the emerging market context, more fundamental

training and education efforts that make employees and managers more effective in supporting the performance-oriented goals of the organization also play an important role in making firms more ethical.

Organizations also need to develop greater adaptability in order to support their law-abiding climates. Adaptability occurs at both the individual and organizational level. According to Boylan and Turner (2017), individual adaptability is a function of cognitive skills and creative thinking, together with social skills, while organizational adaptability is a result of an attitude throughout the organization and depends on adaptability among employees. Adaptability can be developed internally through training and programs of cultural change that highlight adaptability as an organizational value (Boylan and Turner, 2017). Similar to the fostering of ethical values in an organization (Cohen, 1993), adaptability has the potential for reducing organizational anomie if it is modelled by top managers who can set the tone for the rest of the organization. Due to their influence on the organization, adaptable leaders are able to “unleash the potential of systems and people to adjust and adapt in ways that successfully address the needs of a shifting environment” (Uhl-Bien & Arena, 2018).

In addition to developing greater adaptability, firms should also provide managers with opportunities to develop industry ties as an important knowledge resource that can help overcome some of the limitations inherent with scarce skilled labor. Given that interfirm managerial relationships can be mutually beneficial, managers could look to establish strategic alliances in order to make informal relationships that characterize emerging markets more stable and dependable, while making sure not to hamper their fluidity that makes them effective in the context.

Public policy implications also emerge from the findings. Government authorities should be concerned about conditions that result in anomie and weaken law-abiding climates within organizations. Hence authorities need to see the importance of skilled labor in fostering a culture of lawfulness. Government clearly has a role in education and providing the skilled labor force that will serve as a check on unlawful conduct. The institutional deficiencies in the emerging market context that result in skilled labour scarcity should be met with policy reform aimed at improving education and skills training to foster strong national labour forces that can support organizations in the pursuit of their objectives. Likewise, government can encourage the

development of industry ties with other managers to supplement a lack of skilled labor by supporting trade associations and industry events that will provide contexts in which such external ties can emerge. Public-private institutions have been found to effectively develop these kinds of external ties, especially for companies that fall the outside elite networks (McDermott, Corredoira, and Kruse, 2009) that characterize emerging-market countries (North, Wallis, and Weingast, 2009).

Limitations and future directions for research

Certainly this paper is not without limitations. First, the data is drawn from a single emerging-market economy – Mexico. Further work needs to be done in order to determine the boundary conditions of this approach. Are all emerging markets alike? Certainly there is reason to believe that they are not (North, Wallis, and Weingast, 2009). It may very well be that firms in more mature emerging markets (e.g. Korea and Chile) may rely less on managerial ties to adapt to their environment in light of a more stable institutional framework. Less mature emerging markets may be subject to higher levels of uncertainty and rely on industry ties to a greater extent. In addition, the study is cross-sectional in nature and cannot address issues of causality. Further research, including replication of the study in Mexico at different time periods, would enable researchers to determine the direction of causality that is likely to exist. Survey methods are subject to issues of common method bias. Although we took several measures to alleviate these concerns, future research could test the basic propositions of this study with other appropriate methods including the use of proxy variables drawn from large databases.

A key issue in conducting ethics related research is social desirability bias (Randall & Fernandes, 1991), with firms, for example, being reluctant to answer honestly about their direct involvement in unlawful actions. Law-abiding climate serves as an indirect measure of unlawful organizational conduct because it is indicative of how conducive a firm's norms regarding compliance are to engaging in unlawful acts. The use of law-abiding climate as the dependent variable as opposed to a direct measure of unlawful organizational conduct has the benefit of reducing the risk of socially desirable response and ensuring an adequate response rate, but comes at the cost of sacrificing some external validity as it pertains to inferences that can be made in regards to unlawful conduct. Given the dearth of firm-level research attempting to investigate unlawful organizational conduct and the severity and importance of the issue,

especially in the emerging market context, this trade-off is justified and the examination of law-abiding climate is nonetheless worthwhile.

The paper provides some important directions for future research. The role of organizational adaptability in fostering a law-abiding climate is poorly understood. Further research needs to investigate how exactly leadership and training can be used to develop organizational adaptability in order to create conditions that are favorable to strong law-abiding climates, much like the way that orientation and training programs are useful vehicles to communicate ethical values (Cohen, 1993). In the cases of both understanding how adaptability relates to law-abiding climates and how business practices enhance adaptability, well designed experiments and case studies will enable researchers to uncover the important elements that make such practices effective.

Although more work remains to be done, we hope that we have provided sufficient guidance to entice scholars to continue this line of research, especially in emerging markets where skilled labor is scarce. Clearly there exist opportunities for business and government to foster law-abiding climates in emerging markets. Hopefully, scholars will help point the way.

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Appendix

Study measures

Law and code ethical climate (Victor and Cullen, 1988)

Construct reliability = 0.830; AVE = 0.72; range of loadings: 0.736- 0.866
(scale items anchored by 1= “strongly disagree” and 7= “strongly agree”)

Please rate your level of agreement with the following statements.

1. In our company, people are expected to comply with the law and professional standards over and above other considerations.
2. In our company, the law or ethical code of their profession is the major consideration.
3. In our company, people are expected to strictly follow legal or professional standards.
4. In our company, the first consideration is whether a decision violates any law.

Skilled labour scarcity (Miller & Friesen, 1982, reverse coded)

Construct reliability = 0.783; AVE = 0.80; range of loadings: 0.867- 0.922
(scale items anchored by 1= “This resource is very scarce and/ or prohibitively expensive” and 7= “This resource is quite plentiful”)

Rate the abundance of the following resources for your company.

1. Skilled labour.
2. Managerial talent

Organizational adaptability (Jambulingam et. al, 2005)

Construct reliability = 0.821; AVE = 0.71; range of loadings: 0.713-0.930
(scale items anchored by 1= “strongly disagree” and 7= “strongly agree”)

Please rate your level of agreement with the following statements.

1. Our company is able to meet the needs of our business environment.
2. Our company keeps pace with changes required by our business environment.
3. Our company adapts to demands of our business environment.

Industry ties(Peng & Luo, 1996)

Construct reliability = 0.797; AVE = 0.70; range of loadings: 0.736-0.910
(scale items anchored by 1= “very little” and 7= “very extensively”)

To what extent have top managers at your company utilized personal ties, networks, and connections during the past three years with each of the following?.

1. Top managers at buyer firms.
2. Top managers at supplier firms.
3. Top managers at competitor firms.

Government ties (Peng & Luo, 1996)

Construct reliability = 0.859; AVE = 0.84; range of loadings: 0.906-0.930
(scale items anchored by 1= “very little” and 5= “very extensively”)

To what extent have top managers at your company utilized personal ties, networks, and connections during the past three years with each of the following?.

1. Political leaders in various levels of the government.

2. Officials in regulatory and supporting organizations such as tax bureaus, state banks, commercial administration bureaus, and the like.

Controls

Firm size (Amcham database): number of employees in the firm’s headquarters (1= 1-100, 2= 101- 1000, 3 = 1000 or more)

Foreign ownership (survey question): whether the firm is majority owned by a foreign party (1=yes, 0=no)

Sales (Amcham database): firm sales (1=0- 94.9 million pesos, 2= 95-249.9 million pesos, 3=250 million pesos or greater)

Environmental hostility (Covin & Slevin, 1989)

Construct reliability = 0.828; AVE = 0.72; range of loadings: 0.812- 0.915 (scale items anchored by a 1 to 7 scale)

How would you characterize the external environment that your company operates in?

- | | | |
|--|--------------|--|
| 1. Very safe, little threat to the survival and well-being of my firm | 2 3 4
5 6 | 7. Very risky, a false step can mean our company's undoing. |
| 1. Rich in investment and marketing opportunities | 2 3 4
5 6 | 7. Very stressful, exacting, hostile; very hard to keep afloat |
| 1. An environment that our company can control and manipulate to its own advantage, such as a dominant company has in an industry with little competition and few hindrances | 2 3 4
5 6 | 7. A dominating environment in which our company's initiatives count for very little against the tremendous competitive, political, or technological forces. |

Firm age (survey question)

Industry (SIEM database or manual inspection): dummy variables representing professional service, wholesale and retail, three sub-classifications of manufacturing, and other industries. Our categorization approach is appropriate given that a substantial number of firms fall within the industries represented by the first four categories mentioned above, while all other possible two-digit industry categories include either no firms from our sample or very few from our sample or very few.

State (Amcham database): dummy variables representing the states of Distrito Federal (D.F), Nuevo León, and Jalisco

FIGURE 1
Conceptual Model

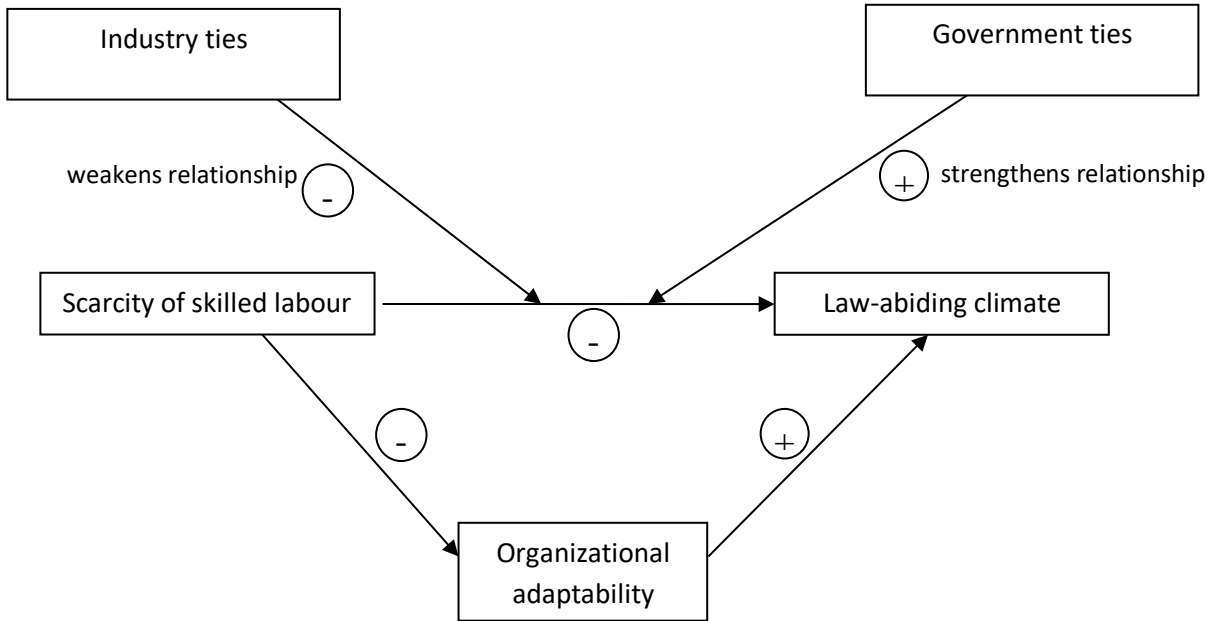


FIGURE 2

Law-abiding climate by skilled labour scarcity for firms with different levels of industry ties

Low skilled labour scarcity High skilled labour scarcity

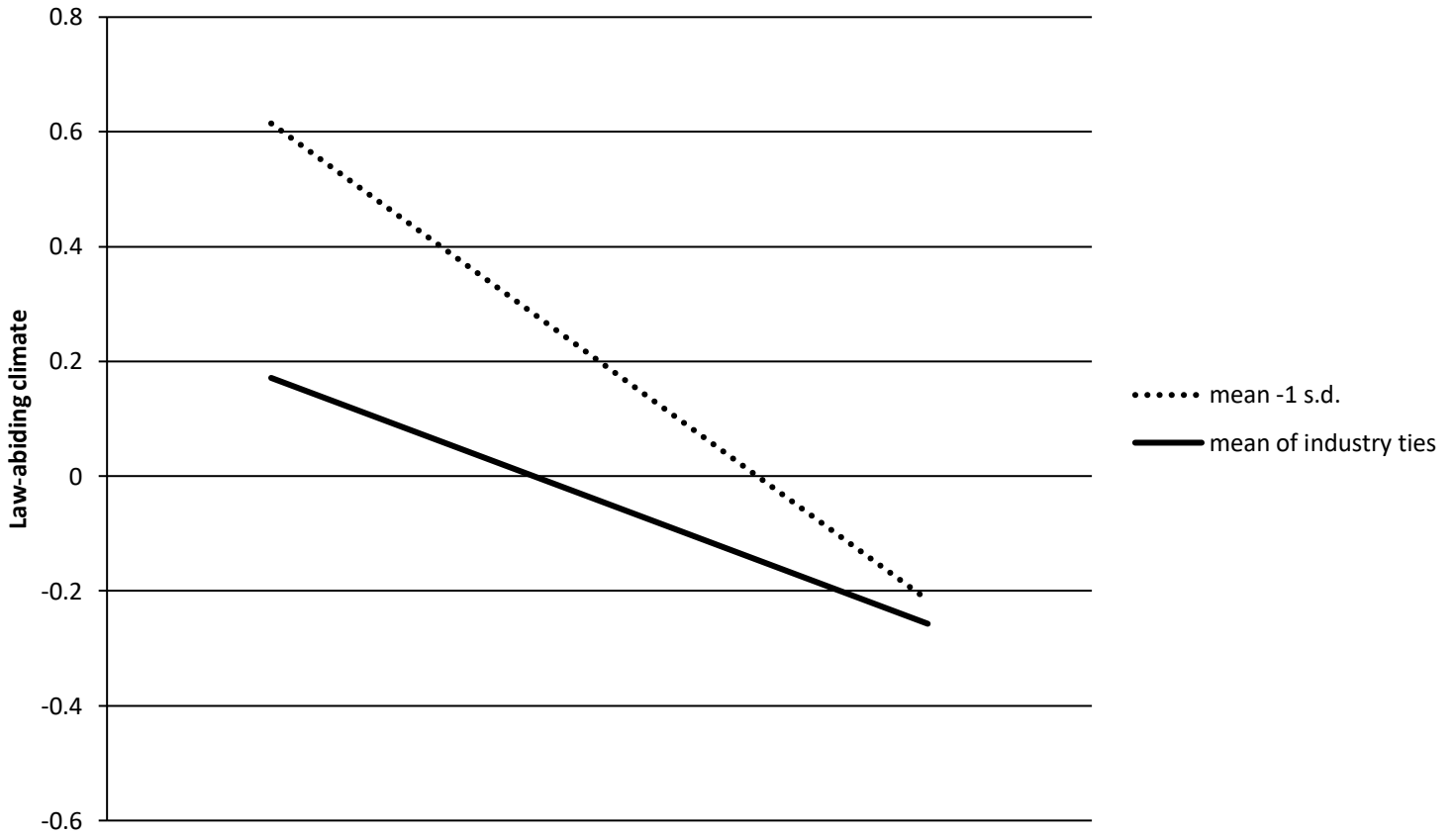


Table 1. Construct correlations, means, and standard deviations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. Lack of skilled labour	1.00																	
2. Law-abiding climate	-0.21	1.00																
3. Adaptability	-0.37	0.39	1.00															
4. Government ties	-0.06	-0.09	0.03	1.00														
5. Industry ties	-0.06	-0.11	-0.15	0.36	1.00													
6. Environmental hostility	0.18	-0.01	-0.20	0.09	0.11	1.00												
7. Age	-0.03	0.06	-0.02	0.09	-0.03	0.08	1.00											
8. Size (# of employees)	-0.06	-0.01	0.02	0.02	0.00	-0.16	0.28	1.00										
9. Sales	-0.15	0.17	0.02	0.05	-0.03	0.00	0.34	0.50	1.00									
10. Manufacturing 1	0.00	-0.04	0.03	0.00	0.07	-0.07	0.08	0.18	0.12	1.00								
11. Manufacturing 2	0.02	-0.08	-0.09	0.02	-0.09	-0.02	0.05	0.13	0.09	-0.05	1.00							
12. Manufacturing 3	0.06	0.01	-0.03	-0.10	-0.14	0.09	-0.01	0.20	0.22	-0.09	-0.10	1.00						
13. Professional Service	-0.05	-0.03	0.14	0.10	0.06	-0.10	-0.08	-0.18	-0.32	-0.15	-0.15	-0.26	1.00					
14. Wholesale and retail	0.01	0.12	-0.01	-0.04	-0.07	0.03	0.17	-0.03	0.23	-0.10	-0.11	-0.19	-0.29	1.00				
15. Other industries	-0.02	-0.01	-0.07	-0.03	0.11	0.05	-0.12	-0.11	-0.16	-0.14	-0.15	-0.25	-0.39	-0.28	1.00			
16. Jalisco	0.19	-0.01	-0.01	-0.02	0.06	0.04	0.06	-0.05	-0.15	0.16	0.00	-0.03	0.07	-0.04	-0.08	1.00		
17. D.F.	-0.08	0.02	0.04	0.01	-0.06	-0.03	0.09	0.02	0.09	-0.11	0.01	-0.12	0.03	0.12	0.03	-0.40	1.00	
18. Nuevo Leon	-0.05	0.00	-0.03	-0.01	-0.01	0.00	-0.11	0.02	0.05	-0.02	0.00	0.13	-0.11	-0.06	0.04	-0.48	-0.57	1.00
Mean	3.15	6.32	5.77	2.99	4.08	3.74	25.86	1.42	1.57	0.05	0.05	0.14	0.29	0.17	0.27	0.25	0.32	0.41
Standard deviation	1.38	0.69	0.90	2.41	2.12	1.36	21.17	0.58	0.82	0.22	0.23	0.35	0.45	0.38	0.45	0.43	0.47	0.49

^aCorrelations at 0.15 and above are significant at $p < 0.05$; Correlations at 0.20 and above are significant at $p < 0.01$, with the exception of the correlation between wholesale and retail and manufacturing 3, which is significant at $p < 0.01$

Table 2 - OLS regressions

Dependent variable:	Model (1) Law-abiding climate	Model (2) Adaptability	Model (3) Law-abiding climate	Model (4) Law-abiding climate	Model (5) Law-abiding climate	Model (6) Law-abiding climate	Model (7) Law-abiding climate	Model (8) Law-abiding climate
Skilled labor scarcity	-0.219* (0.0934)	-0.259** (0.0863)	-0.115 (0.0901)	-0.226* (0.0917)	-0.209* (0.0903)	-0.223* (0.0925)	-0.226* (0.0931)	-0.218* (0.0906)
Adaptability			0.400*** (0.0879)					
Industry ties				-0.232* (0.0920)	-0.249** (0.0906)			-0.235* (0.0945)
Industry ties x skill scarcity					0.201* (0.0832)			0.196* (0.0846)
Government ties						0.184+ (0.0945)	0.182+ (0.0949)	0.0962 (0.0961)
Government ties x skill scarcity							0.0385 (0.0942)	0.0846 (0.0925)
<i>Industry and state dummies included</i>								
Age	0.00104 (0.00430)	-0.00442 (0.00397)	0.00281 (0.00403)	0.000227 (0.00423)	0.000517 (0.00415)	0.00198 (0.00428)	0.00177 (0.00432)	0.000615 (0.00422)
Size (# of employees)	-0.128 (0.181)	0.0687 (0.167)	-0.155 (0.169)	-0.103 (0.177)	-0.0960 (0.174)	-0.135 (0.179)	-0.135 (0.179)	-0.103 (0.174)
Sales	0.186 (0.148)	-0.00325 (0.137)	0.187 (0.138)	0.201 (0.145)	0.202 (0.143)	0.210 (0.147)	0.216 (0.148)	0.225 (0.144)
Environmental hostility	0.0356 (0.0899)	-0.0916 (0.0830)	0.0723 (0.0842)	0.0862 (0.0903)	0.0998 (0.0889)	0.0722 (0.0909)	0.0746 (0.0914)	0.121 (0.0902)
Constant	-0.921+ (0.526)	-0.337 (0.486)	-0.786 (0.491)	-1.107* (0.521)	-0.217 (0.286)	-1.004+ (0.522)	-0.324 (0.298)	-0.271 (0.290)
Observations	145	145	145	145	145	145	145	145
R-squared	0.094	0.119	0.218	0.136	0.173	0.119	0.121	0.186

Standard errors in parentheses; *** p<0.001, ** p<0.01, * p<0.05, + p<0.1