BUILDING TRUST: A MATTER OF PROXIMITY?

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BUILDING TRUST: A MATTER OF PROXIMITY?

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ABSTRACT

This paper brings the concepts of proximity and trust empirically together in order to gain insights in their relationship in the context of resource deficient young, technology-based firms and its key partner network. More specifically, we examine the influence of cultural, cognitive and social proximity on the level of interorganizational trust between young, technology-based firms and its key partners. Using a dataset of 290 relationships between young, technology-based firms in Flanders and their key partners, we find that each of the three concepts of proximity has a significant impact on the level of interorganizational trust. Further, we find that the influence of cognitive proximity on interorganizational trust diminishes over time. These results indicate that proximity between young, technology-based firm and its key partners influences the level of trust in the relationship.

INTRODUCTION

A typical characteristic of young, technology-based firms (YTBF) is their limited resource-base. The lack of financial capital, experienced management teams, capabilities and legitimacy hinders the development of these companies. Drawing on resource dependency (Pfeffer & Salancik, 1978), research shows that young firms overcome their resource constraints through networking and thereby accelerate firm growth (Zhao & Aram, 1995). Next to the acquisition of resources, networking with other companies offers learning possibilities to internalize new knowledge and develop new capabilities (Lane & Lubatkin, 1998). Contrary to the slow experiential learning process, building knowledge and capabilities through interorganizational learning is faster than if the firm were to develop the knowledge and capabilities internally (Grant & Baden-Fuller, 2004). Bruneel, Yli-Renko and Clarysse (2006) show that young, technology-based firms speed up their internationalization process by learning from their key partner, i.e. interorganizational learning from key partners substitutes the slower process of experiential learning. Two concepts play a central role in the networking activities of firms: social capital and proximity.

The first key concept is social capital. Social capital increases the efficiency of information diffusion and reduces the costs of transactions. Trust is a key underlying principle in the concept of social capital (Adler & Kwon, 2002) and influences the willingness of partners to share knowledge and information (Inkpen & Tsang, 2005). Bradbach and Eccles (1989: 104) argue that trust “alleviates the fear that one’s exchange partner will act opportunistically”. Several studies on trust between partners show that high trust stimulates people to engage in social exchange and by doing so share more knowledge and information (Ring & Van de Ven, 1992). Moreover, trust-based relationships facilitate the exchange of difficult to codify knowledge and information, which is by definition difficult to communicate and to trade by markets (Kogut & Zander, 1992).

The second key concept in networking is proximity. Gertler (1995) argues that proximity between partners engaging in an exchange relationship is a pre-condition for knowledge sharing, knowledge transfer and technology acquisition. Proximity between partners plays an important role in stimulating interaction and performance (Amin & Wilkinson, 1999). As a result, the concept of proximity received considerable attention in recent research (see Special Issue of Cambridge Journal of Economics on Proximity and Knowledge Relations, 1999). The concept of proximity covers several dimensions: organizational, geographical and technological of which the geographical proximity is the most developed and most frequently used (Knoben & Oerlemans, 2006).
Geographical proximity points out to the physical distance between two organizations participating actively in a relationship. This type of proximity refers to the extent to which two collaboration actors can have daily face-to-face contact, i.e. co-located (e.g. Lam, 1997). The amount of face-to-face contacts benefits from smaller distances between people (or organizations for that matter) and therefore positively influences the exchange of knowledge. Previous research shows that the trust-building benefits from face-to-face contact (Dahl and Pedersen, 2004). Research show that companies have to be co-located in order to have frequent face-to-face contact (Aharonson, Feldman & Baum, forthcoming). Two companies are technology proximate when their respective technological knowledge base overlaps (Lane & Lubatkin, 1998). In a study of technological collaboration between pharmaceutical and biotech companies, Zeller (2004) shows that similarities in technological knowledge facilitate technological learning. Technological proximity also allows companies to anticipate technological developments. No specific hypothesis on the influence of geographical proximity on the level of interorganizational trust is developed because none of the firms in the sample meets the criterion of co-location with the partner. Arguably, technological proximity influences the partner selection and choice, rather than the level of trust between the focal firm and its partner. Therefore this paper focuses on the organizational dimension of proximity.

Although related, the concepts of (organizational) proximity and trust have lived separate lives due to extensive theorizing. The aim of this paper is to bring both concepts empirically together examining the relationship between the trust and proximity between partners in the context of resource deficient YTBF. The remainder of this paper is structured as follows. First, we develop specific research hypotheses linking the different components of organizational proximity - cultural, cognitive and social - with the level of interorganizational trust between YTBFs and its key partners. Second, we discuss the available data and the theoretical framework to construct a research design appropriate to test the hypotheses empirically. Next, we report the analytical results. The last section of this paper discusses the results and findings and concludes with future research directions.

**THEORETICAL FRAMEWORK AND HYPOTHESES**

**Cultural Proximity**

In a large scale study within IBM subsidiaries, Hofstede (1980) found that national cultures differ along four dimensions: power distance, masculinity, individualism and uncertainty avoidance. The first dimension, power distance, measures the extent to which individuals and institutions expect and accept that power is distributed unequally. Masculinity refers to the distribution of roles between the genders which is another fundamental issue for any society to which a range of solutions are found. The level of a culture’s individualism, which opposes collectivism, measures the degree to which ties between individuals are loose. The uncertainty avoidance index measures the society’s tolerance towards uncertainty and ambiguity. More recently, these dimensions were extended by a fifth dimension (Hofstede, 1991) called “long-term orientation” capturing the extent to which people have a future-oriented vision.

The concept of cultural distance, which is a combination of these dimensions, refers to differences in the “system of values and norms that are shared among a group of people and that when taken together constitute a design for living” (Hill, 1997: 67). The concept has often been used in the study of joint ventures with partners stemming from different cultural backgrounds (e.g. Barkema, Bell & Pennings, 1996). Cultural differences between partners raise tensions, which have a negative influence on the chance of survival of the international joint venture. This tension may also influence the level of trust established between partners. Aulakh, Kotabe and Sahay (1996) argue that the level of trust in interorganizational partnerships may vary according to the macro-cultural environment that surrounds the partnership. We therefore hypothesize:
Hypothesis 1: Differences in culture between the young, technology-based firm and the key partner will have a negative influence on the level of trust in the relationship

Cognitive Proximity

A common characteristic between start-up and young firms is the “liability of newness”, which refers to the different risks of dying of organizations during its life course (Stinchcombe, 1965). Young firms have to learn how to operate in the market place, introduce products and compete with established firms. In addition, older organizations have more and stronger developed exchange relationships with other organizations that give external legitimation. The (higher) external legitimation increases the possibility to acquire public and financial resources and consequently increases their survival rates. Thus the liability of newness results from both internal and external characteristics of start-up and young firms. Singh, Tucker and House (1986) studied the combined impact of both and found that the acquisition of external legitimacy corresponds to a significant reduction in the hazard of death. DiMaggio and Powell (1983) argue that obtaining external legitimacy is more important for organizations that have ambiguous technologies and unclear goals. Therefore, YTBF will build higher levels of trust in relationships with partners, (potentially) providing the firm with higher level of legitimacy. A YTBF maintaining a key partnership with a company that is listed on the stock exchange gains external legitimation. The firm can use this partner as a reference, which facilitates the establishment of collaborations with other organizations. This relationship can also be a signal to potential investors of the value of the firm’s technology. Thus, we hypothesize:

Hypothesis 2: The level of trust in the relationship will be higher when the organizational context of the partner is more complex than the one of the young technology-based firm

Social Proximity

Social proximity refers to the “closeness between partners in an interaction” (Buchan et al, 2006: 377), which implicitly suggests that a “gap” exists between two partners at the beginning of a relationship. To bridge the gap, both partners have to send unambiguous signals about their intentions and expectations on the relationship. By investing in the relationship through the commitment of considerable resources, the YTBF sends a positive signal to the partner and gets rewarded (Delano, 1984). The partner becomes more engaged in the relationship and shares more information, experiences, and so on. The result of this process is that the (potential) benefits of the relationship for the YTBF increases. Consequently, the firm will have (build) more trust in partners when they are in social proximity to the partner. In other words, high levels of social proximity, as reflected by the investment and commitment of resources, will have a positive influence on the level of interorganizational trust between the YTBF and the partners. This underscores Das and Teng (1998: 495) who state that “trust is not for free: trust building is a planned activity and takes considerable resources from organizations”. We therefore hypothesize:

Hypothesis 3: The greater the social proximity between a young, technology-based and the key partner, the greater will be the level of trust in the relationship

Interaction of Longevity of the Relationship and Cultural, Cognitive, Social Proximity

A central assumption of organizational learning theory is that organizations learn over time. This experiential learning is characterized by a learning-by-doing process: organizations improve their capabilities and performance as experience is accumulated (Argote, 1999). This assumption has been tested in different settings: manufacturing (e.g. Argote, Epple & Murphy, 1996), internationalization (Bruneel, Yli-Renko & Clarysse, 2006) and also in the context of interorganizational relationships. In a longitudinal study of a (contractual) relationship between two partners, Mayer and Argures (2004) show that the companies learned how the other operated: their internal structure, decision-making styles, and so
on. Through collaboration, partners discover each other and how differences in structure, processes, routines and the like may be overwon rendering cooperation more effective (Doz, 1996).

These studies show that interorganizational relationships are dynamic and companies learn how to collaborate with others. In early relationships, the differences between partners induce a feeling of “unfamiliarity” that creates suspicion and a level of discomfort. For example, the difference in management style and approach between a Belgian and US company could bring about a strained relationship. Over time, the focal firm learns how the partner is organized and predict its reaction to certain events. Furthermore, companies engaged in interorganizational relationships adapt to the specific circumstances of the relationship and develop a common manner on how to behave in the relationship. Hence, the negative influence of low levels of proximity between partners on the level of interorganizational trust decreases as companies learn (experientially) from each other. Consequently, we hypothesize:

**Hypothesis 4a, b, c:** The negative influence of low levels of cultural, cognitive and social proximity on the level of interorganizational trust between the young, technology-based firm and the key partner fades over time

**DATA AND METHODS**

Data on the characteristics of 290 relationships between key partners and Flemish YTBFs serve to test the hypotheses. Partnerships are identified from a sample of 127 YTBFs. We define YTBFs as “ventures that are less than 12 years old which have their own R&D activities and develop and commercialize new products or services based on a proprietary technology or skill”. To construct the sample, four different databases on firms were used: (1) a database of all firms founded between 1991 and 2002 in high-tech and medium-tech sectors, (2) a database of spin-offs from the different Flemish universities and research institutes, (3) a database of all firms that received government R&D subsidies, and (4) a database of companies in the portfolios of venture capital investors. Initially 1003 firms were identified, 247 met the definition of YTBF, based on telephone screening. From these firms, 210 were interviewed in the first round of data collection in 2002-2003 and studied by Heirman and Clarysse (2005). The data used presently were collected during a follow-up face-to-face interview with the founder or CEO of each firm in 2005. By then, 22 of the original firms had gone bankrupt and six had been acquired. From the 182 independent firms, 127 were interviewed, yielding a response rate of 70%. The median firm in the sample employs 7.5 people and exists 8 years at the end of 2004. Four of the 127 firms had no key partner at the moment of interview and are therefore excluded from the analysis. Kolgomorov-Smirnov two-sample tests show that the responding firms are not significantly different in size, measured a number of employees, from non-responding firms.

Whenever possible, multiple measurement items based on previous studies were used for each of the theoretical constructs. Statement-style items were measured on a Likert-scale from 1 = do not agree to 7 = completely agree. Confirmatory factor analysis was used to establish that only one factor is needed to represent each set of items. Cronbach alpha determines overall construct reliability and conform the requirements all proved greater than .60 (Nunnally, 1967).

**Dependent Variable**

The dependent variable is the level of interorganizational trust built in the dyadic relationship between the YTBF and its key partner. Following Zaheer et al. (1998:143) interorganizational trust is defined as “the expectation that an actor 1) can be relied on to fulfill obligations, 2) will behave in a predictable manner and 3) will act and negotiate fairly when the possibility for opportunism is present”. We used four items, based on Zaheer et al. (1998), to measure trust at the level of the organization: (1) This partner has always been neutral in negotiations with us, (2) This partner may use opportunities that arise to his profit at our expense, (3) Based on passed experience, we cannot confidently rely on the promises this
partner makes to us, (4) This partner is trustworthy. The Cronbach alpha for the level of interorganizational trust is .75.

**Independent Variables**

*Cultural proximity.* The measure of cultural proximity between the key partner and the YTBF is developed by Hofstede (1980, 1991). This measure of cultural distance has been widely used in previous research (e.g. Barkema, Bell and Pennings, 1996). The five Hofstede dimensions are: (1) large power distance, (2) individualism, (3) masculinity, (4) uncertainty avoidance index, (5) long-term orientation. We computed the cultural proximity using the Euclidean distance:

$$CP_j = \sqrt{\sum_{i=1,2,3,4,5} ((I_{ij} - I_{ib})^2 / V_i)}$$

where,

- $CP_j =$ cultural proximity of the $j^{th}$ country from Belgium
- $I_{ij} =$ index for the $i^{th}$ cultural dimension and $j^{th}$ country
- $b =$ Belgium
- $V_i =$ the variance of the index of the $i^{th}$ cultural dimension.

The sample includes 35 key partners that are local subsidiaries of foreign companies in Belgium. Arguably, the culture of the headquarters, i.e. country where the headquarters is located, influences the culture of its subsidiaries. To calculate the cultural distance between the YTBF and local subsidiaries, we averaged the scores of Belgian dimensions and the cultural dimensions of the country where the headquarters are located.

*Cognitive proximity.* Cognitive proximity focuses on the difference in organizational context between the YTBF and the key partner. Its measurement follows the approach suggested by Wuyts, Colombo, Dutta and Nooteboom (2005) who argue that the organization of a firm results from a historic, cumulative process shaping the way firms interpret and react to the external world. Different organizational characteristics mirror the presence of different mental models, organizational routines and management style. Two organizational characteristics have been suggested to influence the behavior of firms: the extent to which the company has attracted outside financing and the extent to which the company has foreign subsidiaries. We measure the organizational context of the firm as follows: independent company = 1, company with external financing = 2, company listed on the stock exchange or a multi-local company = 3 and public organizations = 4 (as they are not-for-profit organizations). The proximity is calculated as organizational context of the YTBF minus the organizational context of the partner. By doing so, we calculate this proximity measure from the point of the focal firm, similar as our trust measure. E.g. if the YTBF is a simple organization (score: 1) and partners with a company listed on the stock exchange or multi local company (score: 3) then the cognitive proximity measures is -2. Reversely the cognitive proximity would be +2. The measure varies between -3 to +2.

*Social proximity.* We measure the level of social proximity by the extent to which the YTBF invest resources and shows commitment in the relationship: 1) We have invested a lot in building this relationship with this partner, 2) Even when there should be a major change at the side of the partner we would not terminate our relationship, and 3) We are committed to this partner. These items are based on Wilson and Vlosky (1998). The Cronbach alpha for the social proximity measure is .70.

**Control Variables**

*Level of interaction.* Several studies show that trust building requires frequent communication between relationship actors. Rather than investigating the level of face-to-face contact, we measured the level of interaction between the YTBF and its key partner as the number of contacts through email, telephone…
since companies increasingly engage in international partnerships\textsuperscript{3}. Working with international partners, however, offers less opportunity engaging in face-to-face contact. Arguably, the rapid change in speed, quality and efficiency of international communication counterbalances the lack of face-to-face contact. We measured the level of interaction between the YTBF and the key partner using a Likert-scale question ranging from 1 = less than once a month to 5 = almost every day.

Longevity of the relationship. Trust in relationships between organizations (and individuals) evolves over time (Schiele, 2006). The longevity of the relationship is measured as the number of years since the establishment of the partnership.

Partner Origin. Partner origin is a dummy that indicates whether or not the key partner is a Belgian organization. When the dummy equals one, the key partner is located in Belgium. Consequently, the influence of cultural distance between the YTBF and the key partner is irrelevant since both partners are located in the same country.

Type of partnership. The interorganizational relationships involve the YTBF and its network of key partners. Building on Dyer and Singh (1998) and Yli-Renko, Autio and Sapienza (2001), each firm was to identify their most important partners, specifically their key customer, supplier, partner in commercial activities (e.g. distributor), partner in technology development, and investor. The nature and context of these partnerships differ, which can influence the level of trust residing in the partnership. We therefore include the type of partnership in the model.

ANALYSIS AND RESULTS

Table 1 summarizes the variables in terms of descriptive statistics and shows the correlations between them.

The level of interorganizational trust ranges from 1 to 7 on the Likert-scale, indicating that a mean result of 5.09 underscores the high trust levels of YTBFs in their dyadic relations with their key partners. The proximity variables, calculated in the same vain as interorganizational trust, vary in their correlation to this dependent variable. Cultural proximity seems uncorrelated to trust; whereas cognitive proximity is, mildly, negatively correlated to trust. Social proximity, finally, exhibits a strong positive correlation with trust. None of the proximity variables are correlated. As to the non-proximity related variables neither the longevity of the dyad nor the level of interaction seems correlated significantly to interorganizational trust. Longevity, however, is correlated to cultural and cognitive proximity; whereas the level of interaction correlates with social proximity. The origin of the partner shows positive correlation. Finally, two types of key partners deserve particular attention: the level of trust is negatively correlated to suppliers; whereas there is a reverse correlation in the case of technology partner. The partner types, as can be seen in Table 1, are all related to some measure of proximity at one stage or another. All these findings suggest that the level of interorganizational trust is being directly or indirectly influenced by the interplay of these independent variables. We use multiple regression analysis to tests the hypothesis on these relations formulated earlier\textsuperscript{4}.

Table 2 consists of three separate models. Model 1 exclusively focuses on the impact of the control variables on the level of interorganizational trust. The model is significant at the 5% level of significance and largely corroborates the results of Table 1 except for the level of interaction. Model 2 introduces the main effects of the independent variables. The coefficient on cultural proximity is significant, but positive thus refuting hypothesis 1. If the partner is foreign there has to be a negative (due to its calculation technique) value. The results show that larger cultural distances will exert a positive impact on the level of interorganizational trust. Therefore hypothesis 1 is not substantiated by the results of the regression. Cognitive proximity is proxied by organizational differences between the YTBF and the key partner. The estimation parameter is negative significant indicating that if key partners are organizational more complex than the YTBF, the resulting trust relation will be affected positively. If, on the other hand, the
YTBF has an organizational more complex structure than its key partner, the effect on trust between these two actors will be influenced negatively. Therefore hypothesis 2 is confirmed by the results. The parameter estimate for social proximity is highly positive significant which implies that higher social proximity corresponds to higher levels of interorganizational trust as predicted in hypothesis 3.

Model 3 focuses on the question of the effects on trust resulting from the interaction of longevity of the relationship and the proximity variables. Again, the model is highly significant and earlier findings on the partner origin and the proximity variables remain significant and all show the same sign as before. Interaction only is significant in the case of cognitive proximity which means that only the hypothesis 4b is valid. The relation between cognitive proximity and interorganizational trust differs according to the duration of this relationship. To further examine this interaction effect, we conducted a simple slope analysis at three levels of longevity of the relationship: one standard deviation below the mean, the mean of longevity, and one standard deviation above the mean. To facilitate the interpretation of the interaction term, the results of this analysis is represented in Figure 1.

If the longevity is high, i.e. the YTBF maintained the relationship with the key partner for a long time, there is little variation, be it tendentially negative, in the level of organizational trust irrespective of the cognitive proximity. This is significantly strengthened in the case of short term relations where the number of years of the relationship with the key partner has much influence on the, negative, relationship between cognitive proximity and trust as can be seen by the steeper negative slope. As such one is entitled to state that the impact of cognitive proximity fades over time.

**DISCUSSION**

Our first finding might be considered counterintuitive at first sight: smaller cultural proximity between the YTBF and its key partners result in a lower level of interorganizational trust. Yet, the degree to which one partner trusts another is a measure of belief in the honesty, benevolence and competence of the other partner. This finding is obviously the case as cultures differ much between two partners: there is hardly any alternative but to trust each other since in-house knowledge of the foreign culture is presumably insufficient to act without the key partner (or at least inferior to that of the key partner). We also performed an additional analysis by entering the five Hofstede dimension separately to further examine this relationship. Results show that the coefficient of the Uncertainty Avoidance Index is positive and highly significant (beta = .29, p < 0.01), while the other four dimensions are not significant. The Uncertainty Avoidance Index, which is a measure of how people perceive opportunities and threats in their environment and how they act upon them (Schneider & De Meyer, 1991), is relatively high in Belgium (ranked seventh on a total of 69 countries) compared to the United States (ranked 58th). In a previous study, Bruneel and Clarysse (2006) showed that the United States is an important market for YTBFs located in Belgium (Flanders). Establishing key partner relationships with US companies are therefore extremely important for these companies as working together with US partners offer opportunities to learn about this market, which proves to have a positive influence on entering foreign markets (Bruneel, Yli-Renko & Clarysse, 2006). The level of interorganizational trust between YTBFs and key partners within Belgium turns out to be high as well. This indicates that trust between exchange partners is higher only when they share the same culture.

The second measure of proximity is the cognitive proximity. Its score ranged between -3 indicating that the YTBF is organizational ‘simpler’ to the key partner and +2 pointing to a larger ‘complexity’ of the YTBF in comparison to its key partner. The result in Model 2 points to a clear corroboration of the hypothesis at the 5% level of significance. If the difference of the organizational complexity increases, the YTBF being the more complex, then a lower level of interorganizational trust is realized. As the difference between a less complex YTBF and its key partner increases this results in a higher level of interorganizational trust. This could be explained by the lack of resources in simpler YTBF that oblige them to trust their more complex partner. If the YTBF itself opts for partnering with a ‘simpler’ organization than the level of interorganizational trust is lower. A possible reason for this is that the urge
to rely on additional resources or information of the key partner is smaller and thus the issue of trust is of minor importance in these situations. Also, affiliation with a key partner that is listed on the stock exchange provides the YTBF with external legitimacy. YTBFs use this partner as a reference which increases the possibility to acquire public and financial resources and consequently increases their chances of survival (Singh, Tucker and House, 1986). The potential benefits this (more) legitimate partners offer to the young, technology-based results in a higher level of interorganizational trust.

The relation between social proximity, which is defined as maintaining relationships with a key partner, and the interorganizational trust is found to be highly positive significant. The higher the social proximity between the YTBF and its key partners, the higher the interorganizational trust between these two actors.

Next there are the other, non proximity related, variables in the model. Longevity, as measured by the number of years the relationship between YTBF and key partner exists, stands in a positive relation with interorganizational trust: the longer the relationship lasts; the more trust the YTBF shows in this key partner. The level of interaction between YTBF and key partner is measured through the frequency of contacts, and proved to have a non significant relation to trust. Finally the type of partner is brought in. These are categorical variables, and the 290 key partner relationships are divided among five partners. The model uses the investor to benchmark the results in Table 2. Results show that the type of partnership does not influence the level of trust.

Model 3 brings in the interaction between the three measures of proximity and the aspect of longevity. All in all the results of Model 2 remain robust. Only the interaction effect between longevity and cognitive proximity is significant at the 1% level. This results means that the negative relationship between cognitive proximity and interorganizational trust varies according the longevity of the relation between the YTBF and the key partner: the longer this relation exists, the lesser that differences in organizational complexity, or cognitive distance, matter in their effects on trust. The fact that the slopes are all negative corroborates the finding in Model 2 for all periods of longevity.

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NOTES

1. Reverse coded
2. We also computed the cultural proximity following Kogut and Singh (1988). The correlation between the K-S measure with the Euclidean distance is .94***. We ran the models using Kogut and Singh Index, influencing the effects slightly; all levels of significance remain equal.
3. Moreover, frequent face-to-face contact requires co-location, i.e. the companies have to be located on the same site (e.g. Lam, 1997). We checked this criterion with the sample of young, technology-based firms collaborating with Belgian key partners. Less than 10 partners were located on the same site.
4. In the different models, the score of the tolerance test range between .27 and .92. Since all scores are well and above .20, there is no problem of multicollinearity between the variables introduced in the model.
5. Before entering the interaction term into the model, we have centred the variables of the interaction term to reduce multicollinearity (Akin and West, 1991)

REFERENCES


Table 1: Correlations and Descriptive Statistics of the Variables in the Model (N=290)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Stddev</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Level of interorganizational trust</td>
<td>5.09</td>
<td>1.26</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Cultural proximity</td>
<td>1.66</td>
<td>1.92</td>
<td>-.01</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Cognitive proximity</td>
<td>-0.58</td>
<td>1.20</td>
<td>-.13*</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Social proximity</td>
<td>5.20</td>
<td>1.27</td>
<td>.37***</td>
<td>.00</td>
<td>-.07</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Longevity</td>
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<td>3.22</td>
<td>.08</td>
<td>-.12*</td>
<td>-.15*</td>
<td>.02</td>
<td></td>
<td></td>
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<td>Level of interaction</td>
<td>2.94</td>
<td>1.32</td>
<td>.11</td>
<td>.03</td>
<td>-.03</td>
<td>.27***</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>Partner origin</td>
<td></td>
<td></td>
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<td>-.81***</td>
<td>-.03</td>
<td>.02</td>
<td>.07</td>
<td>-.05</td>
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<tr>
<td>Partner type</td>
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<td>Customer (n = 95)</td>
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<td>.02</td>
<td>-.05</td>
<td>.22***</td>
<td>.05</td>
<td>.20***</td>
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<td>Supplier (n = 59)</td>
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<td>.10*</td>
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<td>.01</td>
<td>-.16***</td>
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<td>.20***</td>
<td>-.06</td>
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<td>.04</td>
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<td>-.07</td>
<td>-.17***</td>
<td>-.04</td>
<td>.04</td>
<td>.11**</td>
</tr>
<tr>
<td>Investor (n = 59)</td>
<td></td>
<td></td>
<td>.07</td>
<td>-.24***</td>
<td>.07</td>
<td>.02</td>
<td>.01</td>
<td>-.20***</td>
</tr>
</tbody>
</table>

*** p ≤ .001 ** p ≤ .01, * p ≤ .05; two-tailed tests. Pearson correlation coefficients, Kendall’s tau-b correlation coefficients for the dummy variables (Partner origin and Partner type)
Table 2: Ordinary Linear Regression Estimates: Dependent Variable Is the Level of Interorganizational Trust

<table>
<thead>
<tr>
<th></th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Control variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longevity</td>
<td>.07</td>
<td>.08*</td>
<td>.09*</td>
</tr>
<tr>
<td>Level of interaction</td>
<td>.10*</td>
<td>.02</td>
<td>.01</td>
</tr>
<tr>
<td>Partner origin</td>
<td>.05</td>
<td>.23***</td>
<td>.24***</td>
</tr>
<tr>
<td>Customer</td>
<td>-.10</td>
<td>-.11+</td>
<td>-.13+</td>
</tr>
<tr>
<td>Supplier</td>
<td>-.18**</td>
<td>-.10+</td>
<td>-.10+</td>
</tr>
<tr>
<td>Commercial partner</td>
<td>-.11+</td>
<td>-.02</td>
<td>-.02</td>
</tr>
<tr>
<td>Technology partner</td>
<td>.00</td>
<td>.02</td>
<td>.03</td>
</tr>
<tr>
<td><strong>Independent variables</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural proximity</td>
<td></td>
<td>.21**</td>
<td>.22**</td>
</tr>
<tr>
<td>Cognitive proximity</td>
<td>-.10*</td>
<td>-.11*</td>
<td></td>
</tr>
<tr>
<td>Social proximity</td>
<td>.36***</td>
<td>.36***</td>
<td></td>
</tr>
<tr>
<td><strong>Interaction terms</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longevity x cultural proximity</td>
<td>.03</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Longevity x cognitive proximity</td>
<td>.11*</td>
<td></td>
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<tr>
<td>Longevity x social proximity</td>
<td>-.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Adjusted R^2</strong></td>
<td>.03</td>
<td>.16</td>
<td>.17</td>
</tr>
<tr>
<td>F</td>
<td>2.12*</td>
<td>6.65***</td>
<td>5.53***</td>
</tr>
<tr>
<td>df (residual)</td>
<td>283</td>
<td>279</td>
<td>276</td>
</tr>
</tbody>
</table>

*** p ≤ .001, ** p ≤ .01, * p ≤ .05, + p ≤ .10; one-tailed

Standardized coefficients

Figure 1: Simple Slope Analysis of Interaction between Longevity * Cognitive Proximity