How relational embeddedness affects business performance through trust: empirical research on emerging SMEs

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Abstract: In developing countries, emerging small and medium enterprises (SMEs) have been pursuing new opportunities to capture social ties. This kind of business development helps them to maintain their position in the market. By analysing data from 120 emerging Iranian SMEs, this research indicates that relational embeddedness in the form of personal relations, dyadic economic interactions and dyadic social capital, has a significantly positive impact on business performance. This study specifically considers the ways in which trust in both inter-personal and inter-organisational levels, mediates these relationships. Structural equation modelling was used to examine the proposed model. The model was tested for validity and demonstrated a high degree of validity. Surprisingly, dyadic economic interactions are shown to have the weakest impact on emerging SMEs.

Keywords: relational embeddedness; emerging SMEs; dyadic ties; structural equation modelling.

1 Introduction

SMEs typically have limited resources due to being new to a market and small in size. They might, in turn, meet strategic challenges in order to have access to critical resources and improve the organisational performance (Ebers and Maurer, 2014; Li et al., 2013; Rogan, 2014; Zhang et al., 2014). Hoang and Antoncic (2003) contend that emerging SMEs reduce environmental uncertainty by joining well-known partners in the market. The increasing rate of business failure due to a lack of access to adequate resources endorses the necessity of paying attention to the social ties among the entrepreneurs (Chung and Luo, 2013; Dhanaraj et al., 2004; Ebers and Maurer, 2014; Li et al., 2013; Nell and Andersson, 2012; Rogan, 2014). While the challenges of finding appropriate resources are widely recognised in the literature (Day et al., 2013; Hoang and Antoncic, 2003; Li et al., 2013; Rogan, 2014; Zhang et al., 2014), a lack of scholarly research has been devoted to identifying the role of entrepreneurial network relationships in providing resources and discovering business opportunities. This issue develops the literature on the entrepreneurial network to relational embeddedness. Relational embeddedness can basically be characterised as a range of integration activities that focus on dyadic ties in a social context and which affect business performance by facilitating working relationships among affiliated entrepreneurs (Chien et al., 2012; Curry and Koczberski, 2012; Ebers and Maurer, 2014; Li and Li, 2013; Lin et al., 2012; Rogan, 2014; Xu et al., 2012).

While there has been a wave of research on business success embedded in the entrepreneurial network, no substantial research has been found on dyadic ties in the context of relational embeddedness (Dhanaraj et al., 2004; Polidoro et al., 2011; Schnell et al., 2012; van den Hooiff et al., 2010; Wu and Wei, 2004). This study recognises that dyadic ties include individuals and businesses that provide relevant collaborations with SMEs (Moran, 2005; Powell, 2003; Rowley et al., 2000; Zaheer and Venkatraman, 1995). Relational embeddedness is a critical element enabling SMEs to promote social interactions among stakeholders, which might even be out of ordinary business
production times (Day et al., 2013; Hallin et al., 2011; Hite, 2003; Schnell et al., 2012; Uzzi, 1996a; van den Hooff et al., 2010; Wu and Wei, 2004). In other words, from the perspective of examining relational embeddedness, social structures shape new forms of business interactions and transactions. Additionally, when business interactions and transactions are embedded in a social context, trust plays a key role in decreasing the uncertainty that arises from market turbulence and environmental complexities (Cheng, 2013; Hoang and Antonicc, 2003; Nell and Andersson, 2012; Schnell et al., 2012; Wu and Wei, 2004), and tends to result in an improvement of business performance (Bonner and Walker, 2004; Chung and Luo, 2013; Li et al., 2013; Nell and Andersson, 2012; Rodrigues de Vasconcelos and de Oliveira, 2012). Trust facilitates inter-organisational relations among suppliers, customers and businesses.

While studies have demonstrated a significantly positive correlation between relational embeddedness and trust, two serious debates remain:

First, despite relational embeddedness being a central concept of social networks in the development of business performance (Bonner and Walker, 2004; Chung and Luo, 2013; Rodrigues de Vasconcelos and de Oliveira, 2012), it generally begins to develop through interpersonal and inter-organisational relationships (Cruz et al., 2012; Hallin et al., 2011; Khanin et al., 2012; Mainela and Puhakka, 2008). Hite (2008) argues that a social network starts from a dyadic tie, involving two actors, defined for a certain purpose. This purpose can be based upon an economic or business activity. While relational embeddedness relies on trust and commitment in entrepreneurial networks, there is insufficient research indicating dyad ties as the most important aspect of establishing the process of relational embeddedness in business (Day et al., 2013; Mainela and Puhakka, 2008; Powell, 2003; Schnell et al., 2012; van den Hooff et al., 2010; Wu and Wei, 2004; Zhang et al., 2014). Furthermore, Hite (2003) also contends that full-embeddedness can be created in collaboration among personal relationships, dyadic interactions (especially in economic context) and dyadic social capital. As a result, the complexity of relational embeddedness can be conceptually simplified when considering that trust can evolve from dyadic ties.

Second, when talking about new business, many businesses usually turn to environmental threats such as uncertainty and the complexities that the business must address (Audretsch and Mahmood, 1995; Hite, 2008; Hoang and Antonicc, 2003; Powell, 2003; Wu and Wei, 2004). However, the concept of relational embeddedness has, fundamentally, been established to protect a new business from such turbulences by improving trust between older businesses and new ones (Avgterou and Li, 2013; Ebers and Maurer, 2014; Molm et al., 2013; Rogan, 2014; Rooks et al., 2013; Zhang et al., 2014). Trust enables new businesses to create new opportunities and resources. While previous literature and case-studies have tended to concentrate on the impact of relational embeddedness in established SMEs (Cheng, 2013; Chung and Luo, 2013; Li et al., 2013; Molm et al., 2013; Powell, 2003; Schnell et al., 2012; Uzzi, 1999), not much research has been directed to explore the consequences of relational embeddedness in emerging SMEs. As observed by Hite (2005), Uzzi (1996a, 1996b), Uzzi and Lancaster (2003) and Welte and Smallbone (2006), trust between two businesses can play a critical role in pulling out of crisis, especially when it is an emerging business.

This paper aims to advance the debate on these two issues by modelling three practical purposes of relational embeddedness (based on a study by Hite, 2003) in improving emerging SMEs’ performance. This study, firstly, investigates whether or not
personal relations positively influence trust in the context of inter-personal and inter-organisational relations (based on the study by Zaheer and Venkatraman, 1995) for emerging SMEs. This increases our understanding of how social relationships motivate new entrepreneurs to produce dyadic economic transactions. While dyadic interactions, especially in an economic context, refer to the history of the relations, emerging SMEs need to take into account that dyadic interactions can accelerate the speed of growth in the market.

Secondly, his paper explores whether or not dyadic economic interactions positively influence the performance of emerging SMEs by considering that the construct of trust is a mediator of business relationships. As noted in the literature, it is clear that a new entrepreneur places value on the dyadic capital embedded in social ties with an experienced entrepreneur and the two are interested to share their own resources for the protection of the social asset valued in a dyadic social interaction. This paper, hence, investigates whether or not dyadic social capital positively influences the performance of emerging SMEs. We finally evaluate the impact of trust on business performance by considering three dimensions of business performance (sales performance, financial performance and customer performance), dimensions previously identified by Katsikeas et al. (2006).

2 Background and hypotheses

Relational embeddedness can help explain to what extent a business operates in a network environment in which other businesses can take advantage of similar experiences (Cheng, 2013; Chung and Luo, 2013; Day et al., 2013; Noordhoff et al., 2011; Rogan, 2014; Zhang et al., 2014). These experiences can encourage emerging SMEs to identify new opportunities of profitability in the market (Avgouropoulos and Li, 2013; Chung and Luo, 2013; Curry and Koczberski, 2012; Hite, 2008; Hoang and Antoncic, 2003; Li and Li, 2013; Schnell et al., 2012; Uzzi, 1996b). The literature shows that the primary purpose of relational embeddedness is to establish a strong relationship to build trust and to improve business performance (Avgouropoulos and Li, 2013; Chung and Luo, 2013; Day et al., 2013; Hallin et al., 2011; Hite, 2008; Mainela and Puhakka, 2008; Rodrigues de Vasconcelos and de Oliveira, 2012; Rogan, 2014), since it might increase the commitment in a network. As a result, the literature focuses on how this relationship can make social ties much stronger. Khanin et al. (2012) argue that relational embeddedness is the process of improving business performance in a way that trust might accelerate the process of entering a new enterprise into the market.

Assuming that relationships between SMEs can be characterised in the context of social ties, the level of access to technological and financial resources has been the main concern of most emerging SMEs (Chung and Luo, 2013; Dhanaraj et al., 2004; Hite, 2005; Li et al., 2013; Molm et al., 2013). Accessibility to this requires a high level of interaction between business partners regardless of whether or not the interactions are face-to-face or conducted online (Ebers and Maurer, 2014; Khanin et al., 2012; Li et al., 2013; Zhang et al., 2014). Similarly, the level of trust is important in integrating informal relationships between the partners (Li and Li, 2013; Lin et al., 2012; Mainela and Puhakka, 2008; Xu et al., 2012; Zhang et al., 2014). Therefore, both relational embeddedness and trust should be considered as influencing factors on business
How relational embeddedness affects business performance through trust

performance. As evident in Figure 1, the conceptual framework, this research is intended to investigate the relationships between relational embeddedness and both trust and business performance in which emerging SMEs are targeted.

Figure 1  Relational embeddedness: a conceptual model

Hite (2003) defines three dimensions in social activities: personal relationships, dyadic interactions, and dyadic social capital. These dimensions enable emerging SMEs to put personal knowledge and organisational knowledge together to create value (Moran, 2005; Rowley et al., 2000; Uzzi, 1999; Zaheer and Venkatraman, 1995). Personal relations enable an entrepreneur to interact with other business partners beyond formal ways (Hite, 2008; Moran, 2005; Rowley et al., 2000; Uzzi and Lancaster, 2003). It, in turn, displays a degree of social activity that can be seen in an economic context (Dhanaraj et al., 2004; Moran, 2005; Nell and Andersson, 2012; Rogan, 2014; van den Hooff et al., 2010; Xu et al., 2012). Dyadic interactions refer to the antecedent of personal relationships among two or more entrepreneurs. This dimension focuses more on the process of economic transactions than on the context of economic activity and includes all efforts to access appropriate resources (Audretsch and Mahmood, 1995; Bonner and Walker, 2004; Rodrigues de Vasconcelos and de Oliveira, 2012; Rogan, 2014; Xu et al., 2012; Zhang et al., 2014). Dyadic social capital describes the way that entrepreneurs interact to reach their aims and includes reciprocity, value, resource accessibility and brokering (Welter and Smallbone, 2006; Wu and Wei, 2004; Xu et al., 2012; Zaheer and Venkatraman, 1995). This requires a high degree of access to shared resources.

2.1  Relational embeddedness and trust

Relational embeddedness refers to the degree of closeness in dyadic ties that are necessary to create the requirements for trusted SMEs to develop the quality of interactions (Schnell et al., 2012; Uzzi, 1999; Uzzi and Lancaster, 2003; van den Hooff et al., 2010). Drawing on insights from organisational theory, trust is a subjective belief that individually or collectively makes a social activity expected and parties confident to exchange resources (Powell, 2003; Rodrigues de Vasconcelos and de Oliveira, 2012; Rogan, 2014; Rooks et al., 2013). Considering that relational embeddedness is based on significant interactions between business partners (Polidoro et al., 2011; Powell, 2003; Rodrigues de Vasconcelos and de Oliveira, 2012), trustworthy behaviours facilitate the flow of information within a network and allows the partners to draw on their experience of each other (Chen et al., 2014; Moran, 2005; Nell and Andersson, 2012; Noordhoff
et al., 2011; Polidoro et al., 2011). Hite (2003) contends that strong ties do not necessarily lead to creating new opportunities in the market. Uzzi (1996b) states that the efficiency of relational embeddedness is associated with the position that a business has in the market. Even though the business is an old one, relational embeddedness itself cannot guarantee whether or not this business is successful in the market. Li et al. (2013) also point out that trust plays an important role in economic transactions. Trust is characterised in certain social relationships that occur in a network to improve the speed of value created from and that result in exploring new business opportunities.

Staber (2011) notes that trust enables partners to share knowledge in a social-economic context. Welter and Smallbone (2006) argue that entrepreneurs need to consider trust as a facilitator in their dyadic interactions. Trust influences the condition that enables an entrepreneur to consistently obtain and apply available resources in their economic activities. The literature widely emphasises that trust occurs where there are interactive exchanges resulting in building strong ties, especially for those emerging SMEs that tend to obtain more market share in a short-term (Avgerou and Li, 2013; Bonner and Walker, 2004; Cheng, 2013; Mainela and Puhakka, 2008). Nahapiet and Ghoshal (1998) point out that trust creates social value through social interactions, resulting in an improvement in economic activities in the long-term. Personal relations, as the first dimension of relational embeddedness, seem to occur in a series of social ties that a person uses to maintain the relationship with others, especially in an economic context (Day et al., 2013; Ebers and Maurer, 2014).

Molm et al. (2013) contend that common topics in economic exchanges attract high interactions and invite entrepreneurs to get together and share their own resources in a network context. In addition, dyadic economic interaction explains how trust can result in an economic exchange toward capturing opportunities (Khanin et al., 2012; Wu and Wei, 2004; Xu et al., 2012; Zaheer and Venkatraman, 1995; Zhang et al., 2014). The social capital dimension is associated with the resources embedded in social activities in which individual and businesses shape a network of dyadic relations to create value of social ties (Audretsch and Mahmood, 1995; Avgerou and Li, 2013; Chien et al., 2012; Ebers and Maurer, 2014). The main aim of social capital is to create value through a series of relationships available in a network. The concept of dyadic social capital illustrates the binary relationships of a group of entrepreneurs who follow up the joint benefit in an economic context and tend to share their own resources to increase their positions in the market (Curry and Koczberski, 2012; Hite, 2003; Li et al., 2013; Nahapiet and Ghoshal, 1998). Dyadic social capital shapes interpersonal trust in a social context and can lead to inter-organisational trust once it is brought into an economic context (Curry and Koczberski, 2012; Day et al., 2013; Nahapiet and Ghoshal, 1998; Uzzi, 1999). Thus, the hypotheses can be proposed as follows:

H1 There is a significantly positive relationship between personal relations and trust in emerging SMEs.

H2 There is a significantly positive relationship between dyadic economic interactions and trust in emerging SMEs.

H3 There is a significantly positive relationship between dyadic social capital and trust in emerging SMEs.
2.2 Relational embeddedness, trust and business performance

Trust in SMEs has recently received considerable attention in the literature on relational embeddedness. Despite some scholars recognizing the necessity of trust in economic activities (Curry and Koczberski, 2012; Day et al., 2013; Hite, 2008; Nahapiet and Ghoshal, 1998; Uzzi, 1996a; Uzzi and Lancaster, 2003; Welter and Smallbone, 2006), little research has been undertaken to identify how trust can lead to an improvement in business performance in emerging SMEs. This is particularly pertinent when considering that economic exchanges can be directed in the context of relational embeddedness. Relational embeddedness has been considered an influencing factor in economic activities, as it has a significant impact on business performance based on sales performance, financial performance and customer performance (Katsikeas et al., 2006).

Not only does trust decrease the risk arising from economic exchanges based on cooperation, due to an increase in the predictability of economic trends (Avgerou and Li, 2013; Cheng, 2013; Chien et al., 2012; Chung and Luo, 2013), but it can also reduce the cost of contracts over the long term (Audretsch and Mahmood, 1995; Avgerou and Li, 2013; Chen et al., 2014; Hallin et al., 2011; Hite, 2005; Li et al., 2013; Nell and Andersson, 2012). Both these reasons suggest that when trust exists between two or more entrepreneurs, social ties can develop quicker, resulting in improvements in business performance. Furthermore, from a social point of view, emerging SMEs can apply resources shared by trusted older SMEs. It, in turn, causes continuously long-term relationships among SMEs.

Performance is viewed as an influencing dimension that can develop emerging SMEs in a competitive environment (Hallin et al., 2011; Hite, 2003; Hite, 2005; Khanin et al., 2012; Li and Li, 2013). From a cost-effectiveness perspective, sales represent the success or failure of a SME. As stated by Hallin et al. (2011), trust plays a considerable role in economic exchange among suppliers and customers. The nature of these exchanges might effectively increase the share of a SME in the market. One perspective of how trust improves sales performance is indicated by the inter-personal and inter-organisational relationships that entrepreneurs must consider when they evaluate the rate of annual sales based on their capabilities in trusting each other (Lin et al., 2012; Nahapiet and Ghoshal, 1998; Nell and Andersson, 2012; Rodrigues de Vasconcelos and de Oliveira, 2012; Rogan, 2014). While relatively few studies have been identified on the effect of trust on sales performance (Day et al., 2013; Hallin et al., 2011; Khanin et al., 2012; Powell, 2003; Rogan, 2014; Rooks et al., 2013), the impact of trust on financial results seems to inform the literature on relational embeddedness (Chen et al., 2014; Chung and Luo, 2013; Katsikeas et al., 2006; Khanin et al., 2012; Li and Li, 2013; Li et al., 2013; Molm et al., 2013; Moran, 2005).

Relational embeddedness leads entrepreneurs entirely embedded in strong social ties to generate new opportunities in business (Audretsch and Mahmood, 1995; Avgerou and Li, 2013; Bonner and Walker, 2004; Cheng, 2013; Chien et al., 2012; Chung and Luo, 2013; Cruz et al., 2012). It, in turn, causes an increase in economic transaction frequency (Ebers and Maurer, 2014; Hallin et al., 2011; Hite, 2003, 2005; Katsikeas et al., 2006; Khanin et al., 2012). Furthermore, relational embeddedness is the key organisational aspect to encourage the business toward technological innovation and organisational learning. In this case, relational embeddedness can derive information shared throughout the business to improve the quality of decisions, resulting in an improvement of business productivity.
A study by Schwepker and Good (2012) implicitly shows that trust between employees and their organisation positively affects financial performance by reducing the duration of economic exchange and the sharing of resources. Likewise, Zaheer and Venkatraman (1995) point out that a lack of trust negatively affects emotional engagement in work and organisational commitment. Customer performance can help explain a series of strong ties between customers and suppliers. Some believe that the creation of trust between customers and employee is sophisticated when business is new to the market (Averou and Li, 2013; Bonner and Walker, 2004; Day et al., 2013; Hallin et al., 2011; Khanin et al., 2012). As a result of these debates, a forth hypothesis can be proposed as follows:

H4 There is a significantly positive relationship between trust and business performance for emerging SMEs.

3 Research methodology

This research examines the relationship between relational embeddedness, trust and business performance in emerging SMEs. A reason to focus on emerging SMEs in information technology (IT) industry is to understand the extent to which relational embeddedness through the construct ‘trust’, affects the business performance of emerging SMEs. Since these businesses are new to the market and need to get through the networks to guarantee their survival, any strategies to ensure longevity are of interest. According to GITR (2013), SMEs established in IT usually experience many challenges and difficulties over their life cycle, due to intense competition in providing services. By providing e-services to customers, these SMEs contribute approximately to 25% of the Gross National Income in Iran (SCI, 2014). In other words, SMEs in various industries, including IT, play a very important role in economic development in countries like Iran.

Participants in this study are entrepreneurs from emerging SMEs in the Iranian IT industry. The entrepreneurs carried out their activities under the titles of owner, senior manager, president, vice president, executive manager and director. In reviewing the statistical data published by SCI (2014), we targeted 157 SMEs which have been established less than five years ago and have less than 50 employees. A sample of 120 entrepreneurs was randomly drawn, using the sampling table proposed by Krejcie and Morgan (1970). Before sending the self-report questionnaires, we contacted the entrepreneurs by phone or email. We soon realised that the entrepreneurs selected were very knowledgeable on the subject matter and were able to take part of this research. We sent 140 questionnaires in two ways: posted mail and email. We also sent an electronic reminder through to ensure they received the questionnaires, either a hard-copy or online version. Two SMEs were reluctant to participate. 108 questionnaires were returned on time and 16 questionnaires were returned late. In total, we measured 120 questionnaires that were deemed to be valid and reliable as per the parameters for inclusion in this study.
3.1 Measures

Reviewing the relevant literature, five constructs were applied in the entire questionnaire to examine potential relationships. As evident in Table 1, constructs were examined in relation to a number of items. A five-point Likert scale was used for items, with the possible responses: strongly agree, agree, neither agree nor disagree, disagree and strongly disagree.

Table 1 Measurement items and validity assessment

<table>
<thead>
<tr>
<th>Construct</th>
<th>Variables</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal relation (PR)</td>
<td></td>
<td>I know supplier X very well.                                          0.804</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The supplier X is a good friend.                                      0.978</td>
</tr>
<tr>
<td></td>
<td></td>
<td>We talk about our lives and our families.                             0.749</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintaining our personal relationship is important to me.             0.909</td>
</tr>
<tr>
<td>Dyadic interactions (DE)</td>
<td></td>
<td>I interact with the supplier X frequently.                           0.969</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I have interacted for a long time with the supplier X for work purposes. 0.951</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The supplier X tries to help me when I have a work-related problem.    0.944</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I learn from my interactions with the supplier X.                     0.832</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The supplier X and I have similar work-related goals.                 0.798</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The supplier X works well with me.                                    0.864</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maintaining our work-related relationship is important to me.         0.895</td>
</tr>
<tr>
<td>Dyadic social capital</td>
<td></td>
<td>I expect that the supplier X will return my favours.                 0.877</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Our willingness to do favours for each other is an important aspect of our relationship for me. 0.927</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I can access resources from the supplier X if he or she has something I need. 0.914</td>
</tr>
<tr>
<td></td>
<td></td>
<td>I can ask the supplier X to introduce me to someone he or she knows.  0.849</td>
</tr>
</tbody>
</table>
Table 1  Measurement items and validity assessment (continued)

<table>
<thead>
<tr>
<th>Construct</th>
<th>Variables</th>
<th>Items</th>
<th>CR</th>
<th>AVE</th>
<th>SL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust</td>
<td>Inter-organisational trust (IOT)</td>
<td>The supplier X has always been even-handed in its negotiations with us.</td>
<td>0.783</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The supplier X may use opportunities that arise to profit at our expense.</td>
<td>0.910</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Based on past experience, we cannot with complete confidence rely on the supplier X to keep promises made to us.</td>
<td>0.928</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Inter-personal trust (IPT)</td>
<td>The supplier X has always been even-handed in negotiations with me.</td>
<td>0.877</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>I know how the supplier X is going to act. S/he can always be counted on to act as I expect.</td>
<td>0.840</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>The supplier X is trustworthy.</td>
<td>0.933</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business performance (BP)</td>
<td>Performance index of the SME vs. competitors'</td>
<td></td>
<td>0.894</td>
<td>0.573</td>
<td></td>
</tr>
<tr>
<td>Sales performance (SP)</td>
<td></td>
<td>Sales volume</td>
<td>0.936</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sales growth</td>
<td>0.948</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>New product sales</td>
<td>0.871</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial performance (FP)</td>
<td></td>
<td>Profitability as a percentage of sales</td>
<td>0.758</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Return on investment</td>
<td>0.814</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Profit growth</td>
<td>0.859</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer performance (CP)</td>
<td></td>
<td>Customer satisfaction</td>
<td>0.809</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Customer retention</td>
<td>0.847</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
To measure ‘relational embeddedness’, the self-report questionnaire proposed by Hite (2003) was used to measure three items in 16 questions (personal relations in four questions dyadic economic interactions in eight questions and dyadic social capital in four questions). Trust was also measured using a two-item scale (interpersonal trust in three questions and inter-organisational trust in three questions); the scale was adapted from Zaheer et al. (1998). In terms of the business performance construct, the questionnaire proposed by Katsikeas et al. (2006) measures three items, including sales performance, financial performance and customer performance in three, three and two questions respectively. The three questionnaires used also included five-point Likert scale.

4 Findings

4.1 Measurement model

We applied Amos 21 to conduct confirmatory factor analysis (CFA). Considering the assessment criteria proposed by Fornell and Larcker (1981), we tested the model for convergent, discriminate validity and reliability. As evident in Table 1, all items had the composite reliabilities above 0.70, the most usual benchmark. The estimates and significance tests suggest a well-fitted model.

We also tested the discriminant validity of constructs by comparing the average variance extracted (AVE) and variance shared among constructs (Fornell and Larcker, 1981). As evident in Table 2, discriminant is established because all AVEs show a higher amount than the shared variance among constructs. The Harman single factor test was applied to examine the threat of common method variance (CMV) over the model (Podsakoff et al., 2003). The results of this test show that there is no serious concern about the model as the indices are extracted as follows: chi-square = 1211.84, df = 201, p = .000, CFI = .513, RMSEA = .125 (90% CI = .112 to .138). As a result, it can be concluded that there are no concerns about common method bias in the results obtained from the model.

Table 2  
Correlations, AVE and variances shared

<table>
<thead>
<tr>
<th>Personal relations</th>
<th>Dyadic economic interactions</th>
<th>Dyadic social capital</th>
<th>Trust</th>
<th>Business performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR</td>
<td>.905</td>
<td>.088</td>
<td>.431</td>
<td>.067</td>
</tr>
<tr>
<td>DEI</td>
<td>.612</td>
<td>.673</td>
<td>.212</td>
<td>.603</td>
</tr>
<tr>
<td>DSC</td>
<td>.401</td>
<td>.321</td>
<td>.761</td>
<td>.355</td>
</tr>
<tr>
<td>Trust</td>
<td>.507</td>
<td>.077</td>
<td>.204</td>
<td>.814</td>
</tr>
<tr>
<td>BP</td>
<td>.376</td>
<td>.247</td>
<td>.093</td>
<td>.472</td>
</tr>
</tbody>
</table>

4.2 Hypothesis test

Given the model was verified with structural equation modelling (SEM), Figure 2 demonstrates the variables leading to a strong fit. Both personal relations (unstandardised estimate = .95, p < .01) and dyadic social capital (unstandardised estimate = .66, p < .05)
have significantly positive influences on trust, leading to the confirmation of H1 and H3. A significantly positive influence was also seen in relationship between trust and business performance (unstandardised estimate = .87, p < .01). Therefore, H4 was also confirmed. However, H2 was not confirmed, since the dyadic economic interactions construct (unstandardised estimate = .16, p < .10) did not have a significant influence on trust.

Figure 2  Structural model results in confirmation or rejection of hypotheses (see online version for colours)

5 Discussions and conclusions

Previous studies have suggested that relational embeddedness in general alongside personal relations, dyadic economic interactions and dyadic social capital, in particular, can significantly develop trust toward improvement of business performance in SMEs (Avgerou and Li, 2013; Bonner and Walker, 2004; Chien et al., 2012; Chung and Luo, 2013; Day et al., 2013; Hallin et al., 2011; Nahapiet and Ghoshal, 1998). This research, however, focuses on emerging SMEs that need to create value through interactions with other business partners. In reflecting on the results obtained from the model fitness test and hypotheses tests, this research helps to enrich existing insights and other research findings that support the survival of emerging SMEs over the long term. Firstly, this research applies the three dimensions proposed by Hite (2003) to examine the relationships among relational embeddedness, trust and business performance. The findings show that the relational embeddedness dimensions considerably support the trust dimensions (inter-organisational and interpersonal). This capability can also be seen in the work of other scholars such as Dhanaraj et al. (2004), Xu et al. (2012), Li et al. (2013), Day et al. (2013), Chen et al. (2014) and Ebers and Maurer (2014).

Secondly, this research proposes four hypotheses to test the relationships among five constructs. The role of personal relations in creating and maintaining trust has been
examined in the literature (Hite, 2003, 2005; Moran, 2005; Nahapet and Ghoshal, 1998; Noordhoff et al., 2011). As this research has been done in Iran, the dyadic ties studied may have a cultural influence. The evidence provided in studies by Hite (2008), Staber (2011), Chien et al. (2012) and Rodrigues de Vasconcelos and de Oliveira (2012) show that personal relations significantly affect trust between two entrepreneurs in which emerging SMEs can find new partners in the market. The most interesting results in this research are in terms of the second and the third hypotheses. The third hypothesis demonstrates social capital as a requirement to establish and maintain relationships in the long term, especially in a Middle-East context where the relationships are mostly established and function in an informal context. In contrast, the second hypothesis was rejected, since this hypothesis concentrated on antecedents of relationships and the reputation of established SME. The hypothesis is tested, and showed that dyadic economic interactions cannot significantly affect trust in emerging SMEs. In other words, an emerging SME needs to be more involved with other partners to create new opportunities (Mainela and Puhakka, 2008; Uzzi and Lancaster, 2003; Wu and Wei, 2004). This process might even take some SMEs more than five years in Iran to establish dyadic economic interactions with older SMEs.

Overall, we found that relational embeddedness affects business performance in the way that trust can play a mediator role. While the literature has rarely evaluated this relation in the context of emerging SMEs, this research concludes that emerging SMEs can create their own network by focusing on social activities in economic exchanges.

5.1 Entrepreneurial implications

Research on relational embeddedness frequently emphasises the managerial implications of social ties in creating and capturing new opportunities. However, these insights can also be applied to entrepreneurs in four specific ways.

First, entrepreneurs in newly established companies should be fully ready to use the capabilities of social ties in an economic context (Avgerou and Li, 2013; Chien et al., 2012; Hite, 2003). In Iran, personal relations have been located in the middle of economic exchanges, meaning that the success or failure of an emerging SME can be based on a network that the entrepreneur has made up. Free trade is an age-old dilemma in Iran, where only 35% of entrepreneurs hope to stay in their current positions or develop their businesses due to the expansive economic activities of government-owned companies in various industries in Iran. In such situations, strong ties in the context of personal relations and dyadic social capital might provide entrepreneurs with business-centric knowledge.

Second, relational embeddedness facilitates a stream of trust in environmentally complex business situations (Uzzi, 1999). In this condition, entrepreneurs must consider trust as a contributing factor that reduces the risk arising from being new to the market. By developing relational embeddedness, emerging SMEs may become able to create and share knowledge in collaboration with established SMEs. In the Middle-East, especially Iran, access to resources and information is often not as available as it is in developed countries due to the commercial role that government plays in various industries. Therefore, networking in a social context might be a great solution to stay in the market over the long term.
Third, entrepreneurs are encouraged to create and develop trust among their employees. Not only does it lead to an improvement in personal relations and social capital, but has also been shown to increase inter-organisational economic exchanges in which emerging SMEs can experience more ties and decision-making in a social context (Cruz et al., 2012; Curry and Koczberski, 2012; Day et al., 2013; Hallin et al., 2011; Staber, 2011). In light of the results of this research, it might be appropriate for emerging SMEs in Iran to create, develop and maintain their social relationships in an economic context based on established principles that create similar value for other partners. These principles would encourage SMEs to follow up on objectives established in the long-term and find SMEs that track joint benefits.

Finally, this research suggests that new entrepreneurs in the IT industry must be aware of advantages of identifying strong social ties in an economic context. The IT industry may be more sensitive than other industries, since its services are being provided in a fully competitive market. In this condition, relational embeddedness can be applied in practice to help entrepreneurs become quickly familiar with their industry, find new ways to provide services, and become a permanent member of a market within the short-term.

5.2 Limitation and further research

The research has some limitations. Uncertainty is an important variable that overshadows trust in an economic context (Moran, 2005; Rowley et al., 2000), regardless of whether or not entrepreneurs have socially close relationships. In this research we assumed that environmental challenges and complexities are at a low level. To explore different contexts, further research might focus on these issues in questions such as: To what extent can relational embeddedness be effective in an economic context? By answering this question, another question might also be proposed: Does relational embeddedness reduce this uncertainty and how?

A further limitation relates to industry and context. For instance, the study focuses on the IT industry which is mostly a service-based industry. It also represents only one source of data. It is clear that service differs from products in various ways. We encourage scholars to examine and apply the proposed model in both a product-based context and highly competitive environments, in which entrepreneurs must be innovative to capture market share. In addition, Iran is a developing country. Although the Iranian industry signifies a solidarity network in an economic context, the sample of this study might be only reliable in specific regions, especially the Middle-East, because informal relationships culturally affect economic exchanges. However, in Europe and the USA, informal relationships may not be the most highly salient variable in economic interactions.

The methodology used in this study, while valid, could be extended to evaluate the current constructs and, if necessary, add new constructs into the model. Furthermore, the self-reported survey might bring bias into the research. To avoid such an issue, we recommend further research to apply more than one method to test both hypotheses and the model.
References


How relational embeddedness affects business performance through trust


