SYMBIOTIC VS COMMENSAL NETWORKING: THE CASE OF TEXTILE SMEs IN CHINA AND RUSSIA

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Abstract. The purpose of this research is to contribute to the literature addressing the characteristics of small and medium enterprises (SMEs) based on the sample drawn from two emerging economies – China and Russia. The study investigates the intensity and typology of networking activities that SMEs are involved in. The research contributes to the field by empirically investigating, testing, and putting into a unified framework the measurement tools required for identifying symbiotic and commensal types of SMEs’ networking interactions. It also provides an insight into attitudinal, managerial, cultural, and environmental factors that condition these two types of networking and influence SMEs’ willingness to globalize their operations and thus make their networks international. The overriding framework of the study can be stated as developing, validating and testing the symbiotic networking concept relatively to the international business studies. In this way, the study contributes to overcoming the criticism that network theory is not predictive by nature and is not testable.

Key words: networking, SME, born-global, symbiotic, commensal.

1. Introduction

The existing research suggests that personal networks of business owners/managers are critically important for entrepreneurial success (Dubini & Aldrich, 1991; Burt et al., 2013). Networking is used by managers to make sense of the processes in complicated markets (Olkonnenet et al., 2000) and overcomes the constraints and limitations SMEs work within (Johannisson, 1990; Sidorova & Michailova, 2010). Networking becomes an especially valuable resource for ventures in transitional and emerging economies (Manolova et al., 2014). Overall, the entrepreneurs’ personal networks, according to Johannisson & Nilsson (1989), are “the most significant resource of the firm.”

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Under some conditions, entrepreneurs create highly formalized networking structures, while in other cases they prefer non-formal networking relationships. In some situations, entrepreneurial networks include competitors collaborating with each other, while others include only value supply chain members and competitors are not involved in this collaboration (Gilmore et al., 2006). Therefore, the question is: What are the antecedents of these differences, and can they be classified, conceptualized, and explained based on the tenets of marketing and managerial theory?

This core research problem gives the rise to the whole set of practical business questions. Why under some conditions do SMEs prefer formalized networking contacts, with clearly defined range of mutual obligations, while under other conditions they get involved in interactions solely based on human relationships, with minimal formally fixed obligations?

What elements of managerial practice in SMEs and what socio-cultural and economic factors impact an enterprise’s choice of the degree and type of networking collaboration? To what degree does a SME’s involvement in networking processes and the nature of its networking interactions influence the pace of its internationalization process in emerging economies?

The differences in networking structures and within-network relationships have a systematic influence on all aspects of SMEs’ management including marketing channels’ development, value supply chain building, managerial and infrastructural decision making (Shi & Gregory, 2005; Zahra et al., 1999). In this way, understanding small business networking makes not only theoretical, but also practical sense, since it should allow for the systematic prediction of various elements of a SME’s marketing activity based on the nature of networking relationships in which it is involved.

Since it would be impossible to encompass and conceptualize in one study the impact of network integration mechanisms across the whole range of an enterprise activity worldwide, only two emerging economies were used as a sample source (China and Russia) and one relatively narrow aspect of these activities was chosen (SME internationalization). This choice is dictated by the fact that this area of SMEs activity is tightly connected to networking interactions, since one of the important elements of internationalization is modification of business network structure and extension of this network beyond national borders (Dana et al., 2000).

2. Literature Review

**Network perspective of SMEs’ internationalization.** The network perspective of SMEs’ internationalization is based on the idea of non-hierarchical systems comprised of collaborating firms (Johanson & Mattsson, 1988; Bell, 1995; Coviello & Martin, 1999; Harris & Wheeler, 2005, Liu et al., 2010). These can be both formal (contractual) relationships and informal ones (friends, family, etc.) According to the network perspective, the internationalization process is determined by the system of relationships the enterprise is involved in rather than by its firm-specific advantages
or resources (Andersson & Wictor, 2003). SME internationalization research widely applies the network perspective to explain the internationalization decision (“why?”) as well as entry modes and activities in foreign markets (“how?”) (McDougall et al., 1994; Bell, 1995; Vasilchenko & Morrish, 2011). The distinctions of the impact of networking mechanisms on internationalization in economies with different levels of development were documented and relevance of the clustered cross-cultural research (emerging vs. developed economies) emphasized (Ciravenga et al., 2014).

**Symbiotic networking.** Astley and Fombrum (1983) introduced the typology of interorganizational relationships (IOR) that is used in sociological, managerial and marketing studies (e.g., Carney, 1987; Alexander, 1998) but, to the best of our knowledge, is surprisingly overlooked in the SME internationalization research. Within this classification, the major parameter is whether firms’ interdependence is based on immediate economic or non-immediate economic (or non-economic) benefit. Based upon this parameter, they identify two major types of IOR networks - commensal (based upon immediate economic interdependence) and symbiotic (those where the prevailing mutual benefit is non-immediate economic or non-economic interdependence). These two types of networks are sub-divided into (1) confederations (firms competing with each other but maintaining common contractual functional activities); (2) conjugate collectives (vertical linkages through the value-added chain); (3) agglomerate collectives (cartels, trade organizations); and (4) organic collectives (firms engaged in traditional networking), as shown in Table 1.

Table 1. Typology of IORs

<table>
<thead>
<tr>
<th>Type of Association</th>
<th>Commensal ¹</th>
<th>Symbiotic</th>
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<tbody>
<tr>
<td>Direct ²</td>
<td>Confederate</td>
<td>Conjugate</td>
</tr>
<tr>
<td>Indirect</td>
<td>Agglomerate</td>
<td>Organic</td>
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All these types of IORs are applicable to SMEs and allow them to gain, through these collectives, access to critical resources providing social contact and environmental information sources as well.

**Cultural factors.** One of the factors conditioning formation of symbiotic vs. commensal types of relationships is culture that is defined by Hofstede (1980) as “a set of mental programs that control an individual’s responses in a given context.” In Hofstede’s (1980, 2001) system, Individualism vs. Collectivism (IDV) is one of the five cultural dimensions (Power Distance, Masculinity vs. Femininity, Uncertainty Avoidance, and Long-Term vs. Short-Term Orientation). The individualistic-collectivistic dimension

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¹ Commensal interdependence involves relationships with competitors and economic contract. Symbiotic interdependence involves relationships with non-competing partners and is based on economic as well as non-economic mutual benefit.

² Direct association involves firms that compete directly with each other. Indirect association involves firms that have a common interest other than customers.
measures the dependence of individuals upon the group. In individualistic cultures, networks are conceptualized by some researchers as instruments, assembled to serve business tasks, whereas in communitarian cultures, they have much higher social context and their own social meaning, similar to a family, community or clan (Hampden-Turner & Trompenaars, 1997; Engelen et al., 2013). Thus, cultural variations in ‘individualism vs. collectivism’ dimension can be posited to result in networks of quite differing characters (Johannisson, 1996, 1997; Ostgaard & Birley, 1994).

**Managerial style.** Another set of factors that influence SMEs’ networking structure belongs to the management (managerial) style. A great deal of attention in literature is paid to the comparison of management styles in Japan with American and European managerial practices (Culpin & Kucukemiroglu, 1993; White, 2002). Some researchers generalized that Japanese and other Asian cultures were similar and put so-called “Asian managerial style” as the focus of their studies, contrasting it with Western management styles. Some of these studies analyzed the difference in networking relationships between firms in Eastern and Western cultures as well as the link between managerial styles and networking patterns used by firms (Pheng & Leong, 2000). Poon et al. (2005) compared styles of marketing managers in China and Australia. Tse et al. (1988) compared managers of mainland China, Hong Kong, and Canada. The findings demonstrate the theoretical and empirical links between different dimensions of managerial style and type of networking in which a firm is involved (Birnbaum-More et al., 1995; Cheung & Chow, 1999; Earley, 1989; Westwood & Posner, 1997).

**Environmental factors.** Environmental turbulence is a fundamental environmental condition underlying uncertainty and business risk (Han et al., 1998; Jaworski & Kohli, 1993, Lee et al., 2012). In different environments, especially emerging economies, many firms enter networking alliances in response to environmental uncertainty and competitive pressures. In this case, turbulence offers firms avenues for exploiting networking opportunities (Prefontaine & Bourgault, 2002; Torkelli et al., 2012). The theoretical and empirical link between networking strategy and environmental turbulence was demonstrated in the organizational management and marketing studies (Mitzberg & Waters, 1985; Ford, 1990; Holm et al., 1996; Bjorkman & Kock, 1995; Hirshleifer & Welch, 2001). The more turbulent the environment, the more varied and fragmented the nature of managerial network (Mintzberg, 1973) and the greater the information processing demands on the top team (Daft et al., 1988). In contrast, stable environments tend to attenuate learning and reacting requirements because of more standardized and routine business flow that increases the need in more systematic and formal agreement-based networking relationships (Kotter, 1982; Keck & Tushman, 1993).

3. The Methodology and Research Model

**Model Overview.** The presented model is a product of integration of the two research paths – the research on small and medium enterprises (SMEs) internationalization within the marketing discipline and the research on business networking within the
management discipline. It continues the emerging theory in international business that is built upon the intersection of marketing and management research relating to small business globalization (e.g., Coviello & Munro, 1995, 1997; Coviello & McAuley, 1999; McDougall & Oviatt, 2000).

The dependent variable in this model is the degree of a SME’s internationalization. It is determined by the type of interorganizational relationships (IOR) in which a company is involved, i.e. the degree in which symbiotic networking component is present in its IOR structure. Two other predictor variables that impact the type of IOR networking belong to managerial and cultural groups of factors: the decision making style and the degree of individualism (vs. collectivism) in a culture, respectively. To summarize, the conceptual map of the study can be presented as the following (Figure 1):

![Research Model](image)

**Research Hypotheses.** This study considers the content of networking relationships based on the IOR typology (Astley & Fombrun, 1983) discussed above. In terms of internationalization of SMEs, this typology leads to the idea that different types of IOR have different impact on their members’ internationalization decision.

Since members of the commensal networks are more driven by the immediate economic benefit, their decision whether to internationalize or not is dictated more by economic factors rather than by networking relationships in which they are engaged. In contrast, the internationalization decision of symbiotic network members may be based upon irrational relationship-based factors rather than on a rational economic motivation due to firms’ tight network bond and high mutual dependency (Bensaou & Venkatraman, 1995).

Hence, the hypothesis is:

*H1: Symbiotic network relationships are positively related to the degree of SMEs’ internationalization.*

The next two hypothesized effects are related to the factors underlying the formation of IORs. One of the major factors is hypothesized to be one of the dimensions of the managerial (management) style, i.e. the decision making style. The link between management style and IOR type used between SMEs networking has been explored in the management and marketing literature (Redding, 1995, 2004; Lowf et al., 2000;
Considine & Lewis, 2003; Griffith et al., 2006). The major theory providing the ground for this link is the production, distribution, and rule-making systems model (hereafter, identified as the “PDR systems model”) (Lee, 1996). Based on this theory, the intra- and inter-organizational relationships are connected between each other in a logical, real-world framework. Hatvany & Pucik (1981) found that adherence to within-company collective decision making is translated into specific interorganizational management techniques including emphasis on organizational teamwork, open between-companies communication, consultative and interdependent decision making. As it follows from the discussion on the distinctions between commensal and symbiotic networks, these elements of IOR relationships are distinguishing features of symbiotic networks.

Therefore, the following relationship is hypothesized:

**H2. The pre-disposition to group decision making in a SME is positively related to adherence to symbiotic type of IOR networking.**

The link between individualism vs. collectivism and type of IOR networking was explored in managerial and marketing literature (Hall & Hall, 1990; Li, 2005; McGrath & O’Toole, 2014). Hall & Hall (1990) indicate that individualistic orientation predisposes managers to pay attention to schedule and order, while collectivistic orientation puts major emphasis upon human relationships rather than formalized obligations. Collectivistic entities are less dependent upon formal settings and arrangements (Nakata & Sivakumar, 2001) and therefore are adherent to more symbiotic rather than commensal types of networking relationships.

**H3. The individualism in a culture is negatively related to managers’ predisposition to a symbiotic type of IOR networking.**

Previous research demonstrated the link between the degree of environmental turbulence and the firm’s adherence to forming strategic alliances and other forms of IOR (e.g., Bensaou & Venkatraman, 1995). A highly unpredictable economic climate that is so typical for emerging economies results in lack of information and other resources that can be obtained through networking mechanisms (Wang et al., 2015). This situation, in turn, makes SMEs in their decision making (e.g. whether to internationalize or not) more dependent on networking rather than in conditions of low environmental turbulence, or makes them unsusceptible to any forms of alliances at all. According to Golden & Dollinger (1993), defensive and reactor strategic postures (that are quite typical for a high degree of environmental uncertainty) lead to increasing role of networking mechanisms in firms’ strategic planning process. Based on the above, the following moderating effect is hypothesized:

**H4. The impact of predisposition to the symbiotic type of IOR networking on SMEs’ internationalization will be higher for high level of environmental turbulence, and lower for low level of environmental turbulence.**
**Sampling.** The compatible sample frames from the two countries participating in the research (China and Russia) were chosen: for China – the national list of domestic manufacturers issued by the China Chamber of Commerce for Import and Export of Textiles (6283 firms); for Russia – the list of RosTextile Concern Fair Members (1621 firms). A systematic random sample was drawn on an nth name from both of these databases to provide a stratified sample of the textile industry’s SMEs in China and Russia. The respondents were contacted with Vovici Web surveying tool. The response rate improving techniques (follow-up e-mails and phone calls) were applied. As a result, the total sample of 531 firms was obtained. The number of responses per each country was 287 and 244 for Russia and China respectively.

**Measurement.** The degree of internationalization (DOI) was measured with Sullivan’s (1994) methodology as a composite of five ratios related to different aspects of a firm’s international. A scale for symbiotic networking was introduced by Golden and Dollinger (1993) then applied in the networking literature (Gilmore et al., 2006; MacGregor, 2004) and contains the list of inter-organizational activities that reflect a company’s involvement in different types of symbiotic networking. The management style related construct (decision making) was measured based on the work of Albaum & Herche (1999) and Poon et al. (2005). The Earley’s (1994) 8-item scale was adapted for measuring Individualism vs. Collectivism construct. The environmental turbulence is measured based on its three sub-dimensions – complexity, predictability, and equivocality (Burton et al., 2002).

All scales were initially pretested on a smaller cross-cultural sample that included 59 firms. The exploratory factor analysis was employed to determine whether the obtained scales fit the dimensionality of constructs. Based on the results of the pretest, those items that did not demonstrate satisfactory loading patterns were eliminated. The cutoff for significant factor loadings was 0.4 and factors were kept based, first, on the dimensionality of the constructs and, second, on the explained variance (Deng & Dart, 1994). All factors were rotated using the varimax procedure.

**Structural Equation Model.** The collected data were analyzed using structural equation modeling (SEM) technique. The moderating effect of the ‘environmental turbulence’ variable was tested using Ping (1996) and Kline & Dunn (2000) procedures that are based on a deviation-score approach. In summary, the tested model appears in Figure 2.

**Reliability, Validity, and Cross-Cultural Stability.** The reliability issue was addressed by calculating Cronbach’s alpha coefficient. The coefficients α were considered acceptable if higher than 0.7 (Nunnally, 1978). The reliability coefficient was calculated and reported separately for the Chinese and Russian sub-samples (Iacobucci & Duhacheck, 2003). The convergent validity of the measures was assessed through simple correlation among the scales’ components. The obtained item-item correlation coefficients were tested for significance. The unidimensionality assessment of all scales was made as well. The evaluation of discriminant validity was made based on a simple factor
test performed for each pair of theoretically closely related constructs. Items representing these constructs were factor analyzed together as a single dataset, using principal components analysis. The cross-cultural stability was assessed by performing exploratory factor analyses on two datasets separately – the Chinese and Russian samples respectively. Then, the extent to which reliability and validity indicators are invariant across these two samples was examined.

Fig. 2. Structural Equation Model

4. The Findings

To review the study results, the hypotheses tested in the paper are again summarized below:

*Hypothesis 1*: Symbiotic network relationships are positively related to the degree of SMEs’ internationalization.

Path coefficient from Symbiotic Networking to the Degree of Internationalization is 0.182, with C.R. 16.704 and p-value <0.00. Thus, Hypothesis 1 is supported.

*Hypothesis 2*: The pre-disposition to group decision making in a SME is positively related to adherence to symbiotic type of IOR networking.

Group Decision Making has significant positive effect on Symbiotic Networking (path coefficient 0.694, C.R. 17.331 and p-value <0.00). Hypothesis 2 is supported.
Hypothesis 3: The individualism in a culture is negatively related to managers’ predisposition to a symbiotic type of IOR networking.

The Individualism score is positively related with Symbiotic Networking (path coefficient 0.019). However, it is not significant (C.R. 0.394 and p-value 0.794). Therefore, Hypothesis 3 is rejected.

Hypothesis 4: The impact of predisposition to the symbiotic type of IOR networking on SME internationalization will be higher for high levels of environmental turbulence, and lower for low levels of environmental turbulence.

Since the model provides the tests for interaction effects, a special procedure in SEM testing was applied, as recommended by Joreskog & Yang (1996) and Jaccard & Wan (1996). The obtained results clearly demonstrated a moderator effect. The path coefficient from Symbiotic Networking to Degree of Internationalization is significant for the high-turbulence group (p-value <0.00). In the low-turbulence group, it is significant at 0.05 levels, but is not significant at 0.01 levels (p-value 0.033) (Table 2).

<table>
<thead>
<tr>
<th>Path</th>
<th>Weight Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low Turbulence Group:</strong> DOI &lt;--- SymbNet</td>
<td>0.025</td>
<td>0.012</td>
<td>2.134</td>
<td>0.033</td>
</tr>
<tr>
<td><strong>High Turbulence Group:</strong> DOI &lt;--- SymbNet</td>
<td>0.316</td>
<td>0.015</td>
<td>21.509</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Based on the above, it is concluded that Hypothesis 4 is supported by the statistical analysis results. The obtained results clearly show that the relationship between networking variable and internationalization is significantly stronger in the conditions of high rather than low environmental turbulence.

5. Summary and Implications

Theoretical Contribution. The major theoretical contribution of the study can be characterized as extending the frameworks of networking theory. The study classified, conceptualized, and explained factors underlying the typology of networking strategies of SMEs and their influence of a SME’s internationalization based on the tenets of marketing and managerial theory. The study findings are consistent with earlier research performed by Oviatt & McDougall (1994), McDougall et al., (1994), Bell (1995) and other studies in the field that conceptualize the internationalization process as relying on network relationships.

The construct reflecting a SME’s networking activities (symbiotic networking) as well as its managerial and cultural antecedents are measured and operationalized. The
network theory approach to SME internationalization is conceptualized as a multi-leveled model that was converted to operationalizable terms and tested. In this way, the study overcame the traditional criticism existing in the marketing and managerial literature relative to the networking theory in that it does not provide a predictive and testable framework that could explain SMEs’ internationalization.

Another contribution of the study to the field is that it validated the proposed model on a diversified sample coming from the two emerging economies that are very distinct from each other in terms of culture, business, legal, political environment, history and traditions – China and Russia. By employing this sample not only is the credibility of the proposed model supported, but also the measures of the constructs, first of all symbiotic networking, validated in a cross-cultural setting.

**Managerial and Practical Relevance of the Study Results.** The study results are relevant from managerial and practical points of view as well. The study results suggest that different cultural and managerial postures result in different types of networking relationships that have an impact on a SME’s internationalization process. Networking interactions as a vital component of corporate strategy play the core role in small and medium businesses’ overseas expansion. The obtained findings may assist in identifying networking clusters of SMEs in emerging economies that are more likely to enter foreign markets.

The performed research provides evidence that internationalizing SMEs may increase their competitiveness through the networking collaboration, especially while acting in the conditions of a turbulent environment. The results of the study suggest that the symbiotic type of network ties will facilitate their internationalization. Under the situation of unpredictable and changing environment, SMEs starting their overseas operations could develop their niche in the international market by drawing strength from networking interactions. In contrast, in non-turbulent environments, networking collaboration does not play a primary role contributing to the internationalization process.

The fact that the relationships between networking variables and internationalization work much better under the conditions of a turbulent rather than non-turbulent environment, from a managerial point of view, suggests that managers should pay special attention to networking activities as an antecedent of internationalization in the situation of an unstable and contingent business environment. For instance, in a situation of economic crisis the impact of a firm’s networking relationships on internationalization is much stronger than in economically stable conditions.

Another area of application of the study’s results to business practice is elaboration of managerial tools of managing multinational entrepreneurial businesses and business entities with culturally diverse staff. Proper understanding of the mechanisms of a culture’s impact on SMEs’ networking and internationalization helps their managers in turning cross-cultural distinctions that exist within these enterprises into a valuable asset rather than an obstacle to their effective functioning.
Study Limitations and Future Research Directions. The study has certain limitations that must be recognized and discussed. First, the sample is homogeneous in terms of industry that the SMEs included in it represent. All of them belong to the textile industry (fabrics, garments and accessories production and distribution). This choice was made based on the rationale of keeping control over the “industry” variable in order to avoid criticism that the variance in the dependent variable results from the difference of industries that companies represent rather than from variance in networking, attitudinal, managerial, cultural, and environmental variables included in the model. Generalizability of the research results can be made only after performing the studies that validate the findings in other industries. Two industrial cluster samples, which can be used for future research, are knowledge-based industries and service industries.

Future research agendas may also include the investigation of influence of different types of symbiotic and commensal networking on a SME’s internationalization, including in the model other cultural, attitudinal, environmental, and managerial variables, expanding the horizon of research to the broader array of emerging economies.

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