Track: 5. SMEs, international new ventures and international entrepreneurship

Competitive Paper

The Dynamics of Learning Orientation and Network Competence in Internationalizing SMEs

Abstract

Literature on small- and medium-sized enterprises (SMEs) suggests that that their internationalization depends on their business networking, and internationalization models also tend to conceptualize internationalization as learning process driven by accumulating knowledge. However, the dynamics of learning and networking in SME internationalization outcomes has rarely been examined in a joint study, and in particular the extent to which companies are able to learn and to manage their network – their network competence and learning orientation - have not been considered together.

We aim to do so in this study, by investigating how learning orientation and network competence of internationalizing SMEs determine their 1) propensity to internationalize, 2) the timing of their internationalization and 3) their international performance. Our empirical sample, collected in 2008, covers 298 Finnish SMEs across five industry sectors. The results indicate that relationship-specific network competence determines the likelihood that an SME internationalizes and that it also mediates the relationship between learning orientation and internationalization outcomes. Conversely, cross-relational network competence determines the international performance of the SMEs. These results suggest that for SMEs aiming to internationalize successfully, being learning-oriented may not be enough, unless that orientation results in SMEs developing appropriate dynamic capabilities such as network competence.

The Dynamics of Learning Orientation and Network Competence in Internationalizing SMEs

INTRODUCTION

Our aim in this study is to examine how network competence and learning orientation impact the success in internationalization among small- and medium-sized enterprises (SMEs). Learning through networking is a driving force for internationalization according to several traditional models of internationalization, including the "Uppsala" model (Johanson & Vahlne, 1979; 1990; 2003; 2009) and the network approach to internationalization (Johanson & Mattsson, 1988), which postulate that the learning process occurs through the business network partners that the internationalizing company has relations with, and this logic is the vehicle of knowledge accumulation – and thus behind the internationalization process.

Research on rapidly internationalizing small firms, "born globals" (Rennie, 1993; Madsen & Servais, 1997; Knight & Cavusgil, 2004) has further found networking to be a major factor in successful internationalization of small companies (e.g., Bell, 1995; Sharma & Blomstermo, 2003). Simultaneously, this research has criticized several of the tenets put forth in the traditional models of internationalization. The rapidity of internationalization among born globals calls into question the extent to which foreign market knowledge is accumulated gradually, a process that would result in relatively risk-averse internationalization as suggested by the traditional models. It may be that one of the factors facilitating this rapid internationalization is an organizational culture fostering and encouraging learning, conceptualized as learning orientation (Sinkula et al., 1997; Baker & Sinkula, 1997) of SMEs, in the context of how they affect the timing and likelihood of such firms to start conducting business internationally.

Correspondingly, the organizational ability to develop and manage network relationships has been conceptualized as "network competence" (Ritter, 1999; Ritter et al., 2002). However, besides the study by Torkkeli et al. (2012), few others in international business have investigated the role of network-related dynamic capabilities in internationalization of SMEs, and those few that have (Mort & Weerawardena, 2006; Weerawardena et al., 2007) have tended to remain at a conceptual level, not considering the dynamics between learning orientation, network competence as potential determinants of internationalization outcomes among SMEs. This is a notable omission, since the question on whether fostering proper organizational culture is enough to achieve success in internationalization, or whether development organizational capabilities is needed in addition, is particularly relevant for a resource-constrained small company. Moreover, extant research on strategic orientations and dynamic capabilities have not investigated learning orientation and networking-related capabilities in a joint study in the context of internationalization. Therefore, in this study we examine how learning orientation and network competence determine successful internationalization of SMEs. We continue in the next section with a literature review on network competence, learning orientation and SME internationalization. In the third section we illustrate our research methodology, data collection and measure development. The results of the empirical analysis are examined in the fourth section, and the paper concludes with a discussion on the implication of the results and conclusion.

LEARNING ORIENTATION AND NETWORK COMPETENCE IN SME INTERNATIONALIZATION

The relationship between learning orientation and network competence

Willingness to learn and the ability to develop dynamic capabilities have both been recognized as antecedents of internationalization in the SME context: Operating internationally may

increase technological learning (Zahra et al., 2000), and SMEs may leverage their business network resources to enter foreign markets in order to grow their business (e.g., Gabrielsson & Kirpalani, 2004; Sasi & Arenius, 2008). Teece, Pisano and Shuen (1997, p. 516) have defined dynamic capabilities as *"the firm's ability to integrate, build, and reconfigure internal and external competences to address rapidly changing environments"*. Similarly, organizational culture for learning is referred to as strategic learning orientation exhibited by the firm (Sinkula et al., 1997; Baker & Sinkula, 1999), and SMEs refer to firms with fewer than 500 employees (OECD, 2008). With network-related dynamic capabilities, we refer to the concept *"network competence"* (Ritter 1999; Ritter et al. 2002), the ability of firms to develop and manage their business network relationships, both at the relationship-specific (in dyads) and the cross-relational (in the business network) level.

Network competence has been linked to increased technological interweavement and innovation performance (Ritter & Gemünden, 2003; 2004; Chiu, 2008), but Ritter et al., (2002) noted internationalization as a potential further research avenue. A later study (Torkkeli et al., 2012) did find that network competence may lead to beneficial outcomes among internationalizing SMEs. However, that study did not differentiate between the impacts of dyadic (i.e., relationship-specific) and network-level (i.e., cross-relational) network competence on internationalization outcomes. Moreover, the timing of internationalization has not been examined in the context, and so far the organizational culture for learning, particularly with strategic learning orientation, has received scant attention in the context.

In general, organizational learning and its role in developing organizational capabilities could still do with more research (see Jones et al., 2011; Hakala, 2011). Celuch, Kasouf and Peruvemba (2002) found a positive relationship between learning orientation and

organizational capabilities, but their context was neither international business nor SMEs. Kropp et al. (2006) also found a similar linkage between learning orientation and innovation capabilities of firms, but with similar caveats. Thus, while the context of these studies has not been internationalizing SMEs, what empirical evidence there is points towards a positive relationship between learning orientation and organizational capabilities in the context. Based on the extant literature described above, we suggest that a positive relationship between learning orientation and network competence in internationally operating SMEs could be assumed:

- H1: The higher the learning orientation of the SME, the higher its network competence.

Learning orientation and network competence in first foreign market entry

Both willingness to learn and developing dynamic capabilities have been recognized as antecedents for SMEs to be able to conduct international business: Operating internationally may increase technological learning (Zahra et al., 2000), and SMEs may leverage their business network resources to enter foreign markets in order to grow (e.g., Gabrielsson & Kirpalani, 2004; Sasi & Arenius, 2008). Business networking (e.g., Coviello and Munro 1997; Coviello 2006) and the development of networked relationships with other firms also tends to result in increased competitiveness and performance among SMEs (Lu and Beamish 2001; Rasmussen and Madsen 2001). Moreover, already in 1999, Coviello and McAuley concluded in their literature review that the internationalization process of SMEs often comes to be determined by their networks. Studies before (e.g., Coviello & Munro, 1995; 1997, Bell, 1995) and after (e.g., Loane & Bell, 2006; Sasi & Arenius, 2008) have repeatedly confirmed the notion. Furthermore, learning orientation may increase international performance among SMEs (Kropp et al., 2006; Jantunen et al., 2008). This suggests that, while learning orientation and network competence have not been investigated in this context before, based on extant literature we could expect

those SMEs to benefit from higher levels of both network competence and learning orientation when aiming to enter foreign markets:

- H2: The higher the disposition of an SME towards learning orientation and network competence, the more likely it is to operate internationally.

Some SMEs also tend to make their decision on starting to internationalize earlier than others. Specifically, born globals are small firms operating in knowledge-intensive niche markets that, due to their nature, seek to internationalize earlier than more traditional types of SMEs. Madsen and Servais (1997) have suggested that hybrid structures such as business networks may in fact be even more important for those small firms seeking rapid internationalization, as they may access via the relationships the resources they need in order to start conducting business outside their domestic borders. Similarly, as the more traditional models of internationalization conceptualize the internationalization process through gradual learning of foreign markets and the following increasing commitment of the firm to the markets outside its domestic borders, a learning-oriented SME may be able to seek increasingly relevant knowledge, thus hastening its decision to commit to those markets. Therefore, we hypothesize both the abilities to engage in business networking and being learning oriented to earlier foreign commitment among SMEs:

- H3: The higher the disposition of an SME towards learning orientation and network competence, the earlier it starts its internationalization.

Learning orientation and network competence in international performance of SMEs

While higher-order learning processes such as learning orientation may come to determine international performance, it is not yet clear how the interplay between learning and capabilities occurs in this context. Weerawardena et al. (2007) examine capabilities SMEs develop when they engage in internationalization, and they see learning as an organizational capability parallel

to other capabilities such as market-, marketing- and networking-related capabilities. They further note that studies on SME internationalization, particularly those on rapidly small firms, have tended to ignore the organizational learning in of the process.

Both relationship-specific and cross-relational network competence may have a positive influence on international performance of SMEs. On studies of international new ventures, opportunities for foreign market expansion arise from the business networks the firm is embedded in (Chetty & Campbell-Hunt, 2004; Loane & Bell, 2006). These opportunities through network are needed due to the lack of specialized marketing and other resources that small firms on their own often lack (Knight & Cavusgil, 2004). This is a crucial distinction as, while network competence has been linked to increased international performance in SMEs once before (see Torkkeli et al., 2012), that study considered network competence as a single-measure item, and consequently did not account for the possibility that international performance of SMEs may be determined by either the dyadic or the network-level network competence. This should be clarified, as capabilities in dyadic business relationships (e.g., alliance capability; see Kale et al., 2002) may be conceptually distinct from those residing on the network level (see Äyväri & Möller, 2008).

In addition to learning orientation and network competence in internationally operating SMEs being interlinked, and network competence having a potentially positive influence on their international performance, it is possible that learning orientation may directly lead to better international success as well. Ruokonen and Saarenketo (2008), for example, study strategic orientations in small internationalizing software firms and conclude that learning orientation can be a crucial component of their success in their internationalization process. As the review by Jones et al. (2011) concludes, a number of strategic orientations have been found to have a

positive influence on internationalizing SMEs of various types and in a variety of outcomes. Conversely, some scholars (e.g., Frishammar & Andersson, 2009; Sapienza et al., 2005) have questioned the relevance of strategic orientations or learning on small firms and claimed that, when SMEs aim to optimize their international performance and claimed that the tendency of small firms to follow effectuation logic (Sarasvathy, 2001). Frishammar and Andersson did not assess learning orientation in international performance of SMEs, however, and acquiring and creating knowledge is a pre-requisite of internationalization for small firms (Tolstoy, 2009).

However, other studies have found positive relationships between learning orientation and performance of internationalizing SMEs. Kropp, Lindsay and Shoham (2006) link learning orientation to international entrepreneurs, but examine objective (financial) outcomes, while Jantunen et al. (2008) operationalize international performance as a subjective measure and find a positive linkage between learning orientation and international performance. Thus, while the extant literature has sometimes de-emphasized the importance that strategic orientations in general, and learning orientation in particular, may have on internationalizing SMEs, we suggest that learning-oriented SMEs are able to achieve better international performance in both objective and subjective terms. In sum, then, both learning orientation and network competence can be postulated to have a positive impact on international performance of SMEs:

- H4: The higher the disposition of an SME towards learning orientation and network competence, the better its international performance.

RESEARCH METHOD

Data Collection

The empirical data was collected during the first part of 2008 from Finnish SMEs employing less than 500 employees, across five industry sectors (metal, food, furniture and software

industries, and knowledge-intensive business services). We sought such a cross-sectional sample in order to include both traditional manufacturing industries and more knowledge-intensive ones, which often fall into the born global category. Thus, our sample contained both born globals specifically and internationalizing SMEs in general. Moreover, by choosing the sample from such industry sectors, we aimed to capture all kinds of internationalizing SMEs in our sample. The primary selection of firms to contact was made through the Amadeus database, and resulted in 1147 inquiries being sent in February 2008.

An online survey enables the respondents to participate regardless of their physical location, and the researchers considered online responding as a way to minimize potential respondent fatigue. A printed questionnaire was offered as an alternative, but was not used by any of the sample firms. The questionnaire was back-translated with the help of a professional language editor and pre-tested with two manages from different fields. The contact persons of the SMEs were first contacted by phone, and agreements were sought to send a link to a web questionnaire to the person in senior management deemed by the contact person to be the most knowledgeable on the topic. During this first contact, the researcher and the company contact discussed and agreed upon the most relevant respondent manager in the company, and that person was then contacted via e-mail by the researchers and asked to participate. Four additional reminder e-mails were later sent one week apart for those that had not respondent during the allotted time.

The survey collection was concluded in July 2008 and, of 1147 inquiries made, a final sample of 298 SMEs were obtained (26% response rate). Of these 298, 110 were internationally operating SMEs. The respondent SMEs were on average 29 years old and had an average turnover of 9 million euros. The responding persons were predominantly managing directors (191) and owners (59), with 40 identifying themselves as “other key person”. In order to

account for potential biases and inaccuracies provided by this third category, we conducted one-way ANOVA tests to ensure that responses in the key items were not influenced by the type of respondent. The tested items were the subjectively assessed Likert-scale items, and no statistically significant differences at the 0.05 risk level were found. Thus, the type of respondent was not deemed critical for response quality.

Measure Development

The scale for network competence was adapted from Ritter et al. (2002), and corresponds to the one applied previously to internationalization of SMEs (Torkkeli et al. 2012). The scale included 6 items on the relationship-specific dimension and 9 items on the cross-relational dimension. The final 15-item scale was validated through confirmatory factor analysis. Overall, the survey data did not exhibit small standard deviations between the individual network competence scale items, indicating perhaps a cultural tendency to avoid extremes. We measured learning orientation was measured with a five-item scale adapted from Baker and Sinkula (1999). The items were combined for a single-item measure for learning orientation that exhibited sufficient reliability (Cronbach's alpha = 0.86). The items were as follows: "*Managers agree that our firm's ability to learn is the key to our competitive advantage"; "The sense around here is that employee learning is an investment, not an expense"; "Learning in my organization is seen as a key commodity necessary to guarantee organizational survival."; "Managers encourage employees to "think outside of the box"."; "Original ideas are highly valued in this organization."*

In order to operationalize the likelihood of SME internationalizing and its internationalization timing, we formed two variables: The propensity of internationalization was operationalized through a dichotomous variable of domestically and internationally operating SMEs. The

earlier timing of the internationalization was measured via a similarly dichotomous variable, distinguishing between the SMEs that had started their internationalization within three years of the foundation of the firm (1) and those that had waited longer to do so (0). This distinction is in line with the definition of rapid internationalizers among SMEs, i.e., born globals (Rennie, 1993; Madsen & Servais, 1997; Gabrielsson et al., 2008), as a typical operationalization includes a three-year period from the founding of the SME during which it has already started international operations. Thus, we used three years as the threshold for rapid timing of the commencement of the internationalization among the sample SMEs.

We measured international performance through a composite scale encompassing both objective and subjective assessments. The former was operationalized as the degree of internationalization of the firms via the scale and scope of their foreign operations, and the latter consisted of a subjective assessment of how successful the internationalization strategy in the respondent firm had been (see Torkkeli et al., 2012). In addition, we controlled for the different industry sectors, by creating a dichotomous variable between companies from industries where rapid internationalization is the norm (software industry, following Bell, 1995) and the more traditional ones (metal, food, furniture and KIBS SMEs). We also controlled for firm size via the number of employees in the company, and where possible the age of the firm when it commenced its internationalization process, in order to account for possible differences that rapidly internationalizing SMEs in general might have compared to the more patient internationalizers. The descriptives and inter-correlations of the variables are seen in table 1.

(Take in table 1)

RESULTS

We tested the hypotheses by conducting regression analyses with the SPSS software. Parallel models for cross-relational and relationship-specific network competence were used, as high

inter-item correlations between the two network competence variables might have presented potential multicollinearity problems if included in the same regression. The results for testing for H1, seen in tables 2 and 3, indicate that learning orientation was a positive and significant predictor of relationship-specific network competence. The model was statistically significant ($p<0.05$), and the coefficient of learning orientation was positive and highly significant ($\beta=0.34$, $p<0.01$). The regression model for cross-relational network competence was statistically non-significant ($F=2.05$), however. None of the control variables were statistically significant, indicating that the explanatory power of the model ($R^2=0.10$) is particularly due to learning orientation. As the results of the linear regression illustrate, higher levels of learning orientation in the sample of international SMEs predicted their level of relationship-specific network competence, providing partial support for H1: Learning orientation of internationally operating SMEs predicts their relationship-specific, but not cross-relational network competence.

(Take in table 2) (Take in table 3)

The results of the binary logistic regression analysis for testing if the likelihood of the SMEs to have become international (H2) would be determined by their levels of network competence and learning orientation are illustrated in table 4. The regression with the relationship-specific dimension of network competence included (model 1) was statistically significant (Chi-square test = 18.14, $p < 0.01$) with the two determining coefficient being relationship-specific network competence ($B = 0.35$, Wald's t-value = 5.58, $p < 0.05$) and firm size ($B = 1.24$, Wald = 7.86, $p < 0.01$).

(Take in table 4)

This result suggests that the SMEs that possessed higher levels of the competence to develop and manage dyadic business relationships had a significantly positive influence on their likelihood to internationalize, and that the larger the firm was in size, the more likely it was to operate internationally. Notably, the coefficient for learning orientation was both non-significant and negative (B = -0.07, Wald = 0.13). This may suggest that SMEs may have directed their efforts at becoming learning organizations towards aims other than to internationalize, or that the type of learning acquired by the firms were increasingly about domestic rather than foreign markets. Additionally, the regression model with the cross-relational network competence (table 4, model 2) was not statistically significant (Chi-square = 8.56, $p > 0.05$), and neither of the coefficients of the two main explanatory variables were statistically significant. Therefore, H2 received partial support.

When examining the determinants for the timing of internationalization (H3), the results were altogether inconclusive (table 5). Model 1 with relationship-specific network competence was statistically non-significant (Chi-square 4.20, $p > 0.05$) and while positive, neither the relationship-specific network competence variable (B = 0.42, Wald = 2.33, $p > 0.05$) nor the learning orientation variable (B = 0.19, Wald = 0.31, $p > 0.05$) exhibited any statistical significance. The control variable for firm size (B = -0.50, Wald = 0.55, $p > 0.05$) was also non-significant and the coefficient for software industry was practically zero (B = 0.00, Wald = 0.00). Furthermore, the corresponding model with the cross-relational network competence was, while statistically significant (Chi-square = 17.57, $p < 0.05$), inconclusive as none of the variable coefficients included exhibited any similar significances. Again, both the network competence coefficient (B = 0.32, Wald = 1.54, $p > 0.05$) as well the learning orientation one (B = 0.43, Wald = 1.43, $p > 0.05$) pointed towards positive influences on earlier internationalization of SMEs, but H3 did not receive support.

(Take in table 5)

Next, we assessed the influence of network competence and learning orientation on international performance. As seen in table 6 (model 0), neither size of the SMEs, nor their industry sector, their age at internationalization were found to have statistical influence on their international performance, as model 0 was non-significant (F=1.08) as were all of the coefficients. Similarly, relationship-specific network competence (model 1) did not exhibit a statistically significant positive relationship with international performance: while the coefficient was positive (0.39), it was non-significant at the 5% risk level. Conversely, however, model 2 with cross-relational network competence was statistically significant (F=3.20). Furthermore, the coefficient for cross-relational network competence was positive (β=0.54) and significant ($p<0.05$). Thus, higher levels of cross-relational network competence in the sample of internationally operating SMEs were positively associated to their international performance. Finally, learning orientation (table 6, model 3) did not exhibit a statistically significant influence on international performance. While the coefficient for learning orientation was positive as expected (0.28), it was not significant at the 5% risk level, and the overall model also proved non-significant (F=1.22). Therefore, the results provided partial support for H4.

(Take in table 6)

We further conducted post-hoc mediation analysis in order to investigate the potential mediation effects between learning orientation, network competence and the commencement of international operations among the SMEs. We followed the four steps approach to testing for mediation, as suggested by Baron and Kenny (1986), as well as Judd and Kenny (1981). We first conducted multiple regression analyses to assess each component of the potential

mediation in the model. The results for testing for the unstandardized raw coefficients were as follows: the relationship of learning orientation to the relationship-specific network competence was significant and positive (B=0.16, t(87)=5.01, p=0.03), as was its relationship to the cross-relational dimension (B=0.51, t(87)=2.98, p=0.004).

Of the individual relationships between the mediators (relationship-specific and cross-relational network competence) to the dependent variables (the dummy variables of whether the firm was international and domestic, and whether it had started internationalization within three years of its foundation), only the models with the relationship-specific network competence were statistically significant. In both the likelihood of the SME having become international (B=0.28, t(253)=6.98, p=0.01) as well as to the timing of internationalization (0.46, t(87)=5.01, p=0.03) were also positive. In contrast, the cross-relational dimension had non-significant relationship to the outcomes for both the likelihood (B=0.15, t(253)=1.94, p=0.16) and to the timing (B=0.35, t(87)=2.98, p=0.08). Thus, only the relationship-specific network competence could be expected to potentially exhibit mediation between learning orientation and the internationalization outcomes of the SMEs.

Additionally, testing for mediation effects with a dichotomous dependent variable may not make it suitable for assessing through the general Sobel's test (Sobel, 1982). In particular, Imai, Keele and Tingley (2010) as well as Preacher and Hayes (2008) and Mackinnon, Lockwood and Hayes (2004) propose alternative ways to assess such relationships, including generating confidence intervals through bootstrapping. Thus, following their suggestions, we assessed indirect effects through bootstrapping with the SPSS software. Using 5000 bootstrap resamples, the 95% confidence interval for indirect effects indicated results that the relationship-specific network competence mediated a relationship between learning orientation

and both the likelihood of the SMEs being international (B=0.25, CI=0.05-0.56) as well as to their timing of internationalization (B=0.15, CI=0.04-0.30). Therefore, relationship-specific network competence was suggested to act as a full mediator between learning orientation and the likelihood and timing of when the SMEs had commenced their internationalization process. While no direct relationship between learning orientation and the outcome could be found, a full mediation effect could be present if the other steps are fulfilled (see Kenny et al., 1998; James & Brett, 1984).

DISCUSSION AND CONCLUSIONS

This study aimed to investigate how different network competence and learning orientation determine the internationalization of SMEs. In light of extant research, examining such concepts relating to business networking and organizational learning provide an interesting view considering that both have been recognized as determinants of how SMEs are able to engage in international business successfully (Jones et al., 2011; Johanson & Vahlne, 2009). The empirical analysis highlighted that, while learning orientation of SMEs can be a significant determinant of their capability development, the developed capability can be of the correct or the wrong type, depending on the strategic goals of the firm.

In sum, we found that the ability SMEs to start their internationalization process successfully, by entering their first foreign market, is predicted by their competence in developing and managing dyadic business relationships. And while being learning oriented was not found to have a similarly direct positive effect for the SMEs, a mediation effect occurred: being learning oriented is a significant determinant of their relationship-specific network competence, which in turn explains in part why some SMEs have managed to internationalize while others have remained in domestic markets. This implies that learning orientation may be essential in developing network competencies. Conversely, if SMEs aim to achieve high degrees of internationalization while achieving subjective strategic goals set to the internationalization

process, they should concentrate on developing cross-relational network competence instead. However, as seen in the previous analysis, the learning orientation of SMEs may come to determine not the cross-relational network competence, but the relationship-specific one. As the latter dimension was not significantly related to international performance, we conclude that SMEs should be careful where they concentrate if they aim to learn as an organization: it may not be enough for an internationalizing SME to be learning-oriented, as they should make sure the dynamic capabilities developed as a result are the ones that most align to the set goals.

Thus, the results extend earlier studies on the interplay of strategic orientations in SMEs with their successful international operations (Kuivalainen et al., 2007; Ruokonen & Saarenketo, 2008; Jantunen et al., 2008). The findings are also related to the debate on the role of strategic orientations such as learning orientation in the organizations. Gatignon and Xuereb (1997, p. 78), argue that strategic orientations are *"the strategic directions implemented by a firm to create the proper behaviors for the continuous superior performance of the business"* whereas some other authors such as Noble et al. (2002) see them as more culture-like elements. Our results can be seen to support more the latter viewpoint as learning orientation can be seen as a culture on the basis of which a firm can eventually develop competencies such as relationship-specific network competencies, which eventually enable firms to move into the implementation phase of their internationalization strategy.

The results also found that being learning-oriented or even possessing a dynamic capability such as network may not necessarily hasten the start of international operations. This was a somewhat surprising result, considering the fact that organizational abilities in general tend to support international operations among SMEs (Knight and Cavusgil 2004), and that rapidly internationalizing SMEs are especially likely to be able to utilize their network relationships to

do so (Gabrielsson and Kirpalani 2004). Some of the reasons for our results here could be that, for example, SMEs are often faced with resource limitations due to their small size and may have to make trade-offs between developing organizational competencies or strategic orientations, and starting their internationalization process rapidly. This could mean that similar trade-off, as e.g. in the choice between entering multiple markets or increasingly committed entry modes (cf. Shrader et al., 2000) may take place, and everything just cannot happen in parallel and eventually the more 'phased' explanation is the most viable.

It may be that the causal process between learning orientation, network competence and the commencement of the internationalization process in rapidly internationalizing SMEs derives instead from learning-by-doing; that as they tend to operate in niche markets (Zucchella & Scabini, 2007), they engage in any business relationships they find and over time may become better in leveraging them optimally and in learning as organizations. Born globals in particular have been characterized as *"aggressive learners"* that seek experimentation and solutions as they arise (Jones et al., 2011). Another possibility may be that when SMEs internationalize particularly rapidly, the business networking and learning processes may occur essentially at the managerial instead of the organizational level (Zhou et al., 2007) and the latter has mainly been conceptualized at the individual level in literature (Jones et al. 2011). For business practice, this underlines the importance of choosing educated and well-networked management for SMEs seeking rapid internationalization, thus highlighting the role of the individual entrepreneur in the internationalization process. One potential further research avenue could then be to contrast the organizational and managerial competencies in SMEs, to distinguish some of the underlying reason for the varying results.

In addition this study elaborates on extant research on strategic orientations and SME internationalization, some of which have found a positive relationship between strategic orientations of and the level of success internationally among SMEs (e.g., Ruokonen & Saarenketo, 2008; Jantunen et al., 2008). Contrary to the Jantunen et al. study, however, we did not find higher learning orientation among SMEs to be directly linked to increased international performance. This leaves open the question on why learning organizations may not be in a position to expect both increasingly higher degrees of internationalization as well as better strategic success. We suggest that it may be that learning orientation be linked to more focused internationalization strategy (as measured by subjective assessments on the level of success in international operations), and the knowledge necessary to increase the absolute scale and scope of those operations is embodied outside the firm (i.e., their business network partners).

Overall, this study contributes further to the discussion on the role strategic orientations and business networking have on the internationalization process of SMEs, and in doing so responds to the call by Jones et al. (2011) to study how the two phenomena together. In more detail, we contribute to the discussion of networks in internationalization of SMEs (e.g. Lu & Beamish, 2001; Coviello, 2006), but this study was able to demonstrate explicitly the mediating role of network competence in the relationship between learning orientation and commencement of international operations. This finding sheds further light to the dynamics of organizational learning and competence development in the context of international business. These results indicate that, while both strategic orientations and dynamic capabilities may be needed, these dynamics may be more complicated than previously thought: according to our results study, strategic learning orientation may first lead to capability development, and only then will the impact in an internationalizing SME be seen – that it is not enough for firms to exhibit learning-oriented behavior, but that they must make sure relevant capabilities are developed as a result.

Our study naturally includes some limitations. While we found learning orientation and network competence to be positively related to each other, future studies could examine the learning and capability development process in more detail, e.g., across time, as the results of this study may suggest that being willing to learn is a pre-requisite for competence development. However, this would require further study. Future studies could also examine the process of becoming learning-oriented and its linkage to specific capabilities in more detail; we acknowledge that network competence is but a specific capability focused solely on capturing the abilities of firms to develop and manage their business network relationships.

We note that, while we contrasted rapidly internationalizing SMEs to more patient ones, any steps beyond making the decisions to start engaging in international business and entering the first foreign market were not included. Additionally, by “rapid internationalizers” we did not account for any longitudinal developments in the internationalization process of the sample firms – a limitation inherent in conducting a cross-sectional survey and one that could be mitigated with a follow-up study. With such an approach, some individual managerial attitudes beyond the level of the organizational strategy could be highlighted and further light shed into the question as to how individualized the internationalization decisions among SMEs are.

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Table 1. Descriptives and correlations of the variables. (**p<0.01, *p<0.05)

	Mean	Std.d.	1	2	3	4	5	6	7
1 **RSS network competence**	4.48	1.39	1						
2 **CRR network competence**	4.30	1.28	**0.80****	1					
3 **Learning orientation**	5.78	0.78	**0.32****	**0.28****	1				
4 **International performance**	0.35	1.54	**0.40***	**0.50****	0.26	1			
5 **Number of employees**	55.98	77.23	-0.07	-0.05	-0.06	0.29	1		
6 **Internationalization age** (years)	13.92	21.21	0.16	0.00	-0.10	0.23	0.05	1	
7 **Industry sector** (1=software, 0=other)	0.25	0.44	-0.14	0.06	0.12	-0.25	-0.01	0.05	1

**p<0.01, *p<0.05

Table 2. Results of the linear regressions testing for the relationship-specific network competence-learning orientation relationship. (**p<0.01, *p<0.05)

Dependent variable: RSS network competence	**Model 0 (controls only)**		**Model 1 (learning orientation)**	
Independent variables:	**β**	**t-value**	**β**	**t-value**
Learning orientation			0.34	**3.01****
Firm size (number of employees)	-0.08	-0.65	-0.05	-0.49
Industry (1=software, 0=other)	-0.14	-1.21	-0.18	-1.61
adj. R^2		-0.00		0.10
F		0.89		**3.68***

Table 3. Results of the linear regressions testing for the cross-relational network competence-learning orientation relationship. (**p<0.01, *p<0.05)

Dependent variable: CRR network competence	**Model 0 (controls only)**		**Model 1 (learning orientation)**	
Independent variables:	**β**	**t-value**	**β**	**t-value**
Learning orientation			0.27	**2.36***
Firm size (number of employees)	-0.07	-0.56	-0.05	-0.41
Industry (1=software, 0=other)	0.05	0.44	0.02	0.18
adj. R^2		-0.02		0.04
F		0.27		2.05

Table 4. Results of testing for internationalization propensity. (**p<0.01, *p<0.05)

Dependent variable: Internationalization propensity *(1=international, 0=domestic)*	**Model 1 (RSS)**		**Model 2 (CRR)**	
Independent variables:	**B**	**Wald**	**B**	**Wald**
CRR network competence			0.18	1.42
RSS network competence	0.35	**5.58***		
Learning orientation	-0.07	0.13	0.18	0.01
Firm size *(number of employees)*	1.24	**7.86****	1.42	**10.63****
Industry *(software=1, other=0)*	0.30	0.75	0.34	0.32
	Model info: df = 4, Chi-sq.= **18.14**,** -2 log likelihood = 259.01, Cox and Snell = 0.08,		**Model info:** df = 4, Chi-sq.= 8.56, -2 log likelihood = 265.43, Cox and Snell = 0.06,	

	Nagelkerke = 0.11, 68% correctly classified	Nagelkerke = 0.08, 68% correctly classified

Table 5. Results of testing for internationalization timing. (**p<0.01, *p<0.05)

Dependent variable: Timing of internationalization *(1=within 3 years of foundation, 0=later)*	**Model 1 (RSS)**		**Model 2 (CRR)**	
Independent variables:	**B**	**Wald**	**B**	**Wald**
CRR network competence			0.32	1.54
RSS network competence	0.42	2.33		
Learning orientation	0.19	0.31	0.43	1.43
Firm size *(number of employees)*	-0.50	0.55	-0.33	0.24
Industry *(software=1, other=0)*	0.00	0.00	0.23	0.15
	Model info: df = 4, Chi-sq.= 4.20, -2 log likelihood = 91.10, Cox and Snell = 0.06, Nagelkerke = 0.08, 58% correctly classified		**Model info:** df = 4, Chi-sq.= **17.57***, -2 log likelihood = 91.61, Cox and Snell = 0.05, Nagelkerke = 0.07, 68% correctly classified	

Table 6. Results of the testing for international performance. (**p<0.01, *p<0.05)

Dependent variable: International performance	**Model 0 (controls only)**		**Model 1 (RSS network competence)**		**Model 2 (CRR network competence)**		**Model 3 (Learning orientation)**	
Independent variables:	**β**	**t-value**	**β**	**t-value**	**β**	**t-value**	**β**	**t-value**
RSS network competence			0.39	1.82				
CRR network competence					0.54	**2.85***		
Learning orientation							0.28	1.24
Internationalization age (years)	0.31	1.29	0.32	1.43	0.34	1.70	0.28	1.20
Firm size (number of employees)	0.18	0.77	0.21	0.96	0.22	1.12	0.19	0.85
Industry (1=software, 0=other)	-0.32	-1.34	-0.26	-1.19	-0.35	-1.79	-0.34	-1.47
adj. R^2		0.01		0.14		0.32		0.04
F		1.08		1.75		**3.20***		1.22