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A Socioemotional Wealth Perspective on how Collaboration Intensity, Trust, and International Market Knowledge affect Family Firms' Multinationality

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A Socioemotional Wealth Perspective on how Collaboration Intensity, Trust, and International Market Knowledge affect Family Firms' Multinationality

Abstract:

Internationalization theory does not account for the priority family firms place on socioemotional wealth (SEW). This can reshape how critical theoretical dimensions of collaboration intensity, network trust, and international market knowledge exert their effects. Bringing together the internationalization model of Johanson and Vahlne (2009) with SEW theory, our study of 334 German-speaking family firms reveals international market knowledge mediates the relationship between collaboration intensity and family firms' multinationality. High network trust positively moderates the relationship between collaboration intensity and the acquisition of international market knowledge. Our work expands the predictive ability of Johanson and Vahlne's (2009) important model.

Keywords:

Family firms, internationalization, socioemotional wealth, Uppsala, networks, international market knowledge

1. Introduction

The multinationality of family firms is increasingly important. Nearly 85% of European companies are family firms, generating 70% of Europe's GDP, employing 60% of its workforce (Family Business Center of Excellence, 2015). In Germany, 80% of family firms have international activities and 53% derive more than 40% of their sales internationally (Calabrò, Rüsen, Bartels, & Müller, 2014). Multinationality, defined as the spread and diversity of international activities undertaken by a firm (Asmussen, Pedersen, & Petersen, 2007; Hassel, Höpner, Kurdelbusch, Rehder, & Zugehör, 2003; Hennart, 2007), is attractive to family firms because of the opportunities it presents to sustain family firms' long-term strategy for growth for both the business *and* the family (Brigham, Lumpkin, Payne, & Zachary, 2014).

A family firm is defined as "a business governed and/or managed with the intention to shape and pursue the vision of the business held by a dominant coalition controlled by members of the same family or a small number of families in a manner that is potentially sustainable across generations of the family or families" (Chua, Chrisman, & Sharma, 1999, p.28). While research on family firm internationalization is growing (Kontinen & Ojala, 2010; Pukall & Calabrò, 2014), most studies test for empirical relationships between the features of a family business (e.g., family involvement) and unidimensional measures of internationalization (e.g., export intensity and country scope) (e.g., Calabrò, Torchia, Pukall, & Mussolino, 2013; Cerrato & Piva, 2012; Lin, 2012) with little regard for internationalization theory (Pukall & Calabrò, 2014).

Absent is an integration of internationalization theory with theory unique to family firms. The need to retain family control and sustain the family's financial *and* non-financial wealth cause family firms to behave in ways unique to their non-family counterparts. With this in mind, it remains open if internationalization theory can accurately predict family firm multinationality without accounting for family firms.

Existing international business theories explain a part of the internationalization of family firms. Internationalization theories are used sparingly in the family business literature, but the most popular is the Uppsala Model by Johanson and Vahlne (1977) (Pukall & Calabrò, 2014). The underlying assumptions of this model rest on uncertainty and bounded rationality. Firms act slowly and incrementally while internationalizing to accumulate knowledge and resources necessary to increase commitment further. A not too dissimilar pattern is seen among family firms (Child, Ng, & Wong, 2002; Claver, Rienda, & Quer, 2007; Graves & Thomas, 2008). Family firms tend to internationalize in controlled and measured ways protecting family control, and tend to internationalize slower than non-family firms (Cesinger, Bouncken, Fredrich, & Kraus, 2014), expanding their international reach incrementally as knowledge about the process slowly accumulates within the firm and among family members (Casillas & Acedo, 2005; Gallo & Sveen, 1991). However, the traditional Uppsala Model (Johanson & Vahlne, 1977) focuses on the liability of foreignness to explain why an internationalizing enterprise *gradually* accumulates knowledge and resources over time. The model forecasts that firms hand control of international sales to agents or intermediaries in those markets until the accumulated learning causes the firm to increase their commitments towards further internationalization and international scope, so long as the *financial* performance prospects are favorable. As a result, concerns about losing control and ownership of the international venture are ignored, which contradicts the logic of family firms. The equal primacy given to *non-financial* utilities in family firms does not receive any attention and questions of how family firms accumulate sufficient international market knowledge to offset the dangers posed by multinationality to these utilities are left unanswered.

In 2009, Johanson and Vahlne revised their Uppsala Model adding a specific focus on network relationships. According to their revised model, insidership in relevant networks is necessary for successful internationalization. Building collaboration intensity (as a form of commitment) and network trust are preconditions for the spread and diversity of a firm's

internationalization (i.e., its multinationality) while also enabling further access to international market knowledge as its own precursor to internationalization. Theoretically then, network conditions such as collaboration intensity and trust directly affect multinationality while also being mediated by the learning of international market knowledge.

However, family firms are rarely strategic in forming network ties and their relationships tend to remain identity-based (Kontinen & Ojala, 2011a; Musteen, Francis, & Datta, 2010; Pukall & Calabrò, 2014). Family firms are reluctant to enter new networks (Gómez-Mejía, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007), prefer to rely on well-established and long-term collaborations with other family firms as more intimate sources of information for internationalization (Musteen et al., 2010), and are more likely to draw on the rich social capital within their existing collaborative ties first to acquire information (Kontinen & Ojala, 2011b), regardless of its strategic value (Hite & Hesterly, 2001). This reluctance originates from the dominance of socio-affective utilities in family firms.

Theorizing has attributed family firms' unique behavior to the preservation of non-financial or socio-affective utilities, known as *socioemotional wealth* (SEW) (Berrone, Cruz, & Gómez-Mejía, 2012; Gómez-Mejía, Cruz, Berrone, & De Castro, 2011). For family firms, the primary reference point in making strategic decisions is not economic hazard but the loss of SEW (Gómez-Mejía et al., 2007). Emotions permeate the boundaries between the family and the firm (Berrone, Cruz, Gómez-Mejía, & Larraza-Kintana, 2010) such that potential gains or losses of SEW are the primary frame of reference to predict family firm owners' strategic actions (Berrone et al., 2012). The desire to accumulate and protect SEW is foreshadowed to affect the family firm's internationalization as well (Pukall & Calabrò, 2014). Although Johanson and Vahlne (2009) realize that "affective dimensions are indeed important for understanding relationships" (p.1417), extant theory does not account for the idiosyncrasies of the family firm that are likely to reshape how the critical theoretical dimensions (collaboration in networks, trust, and international market knowledge) of the

Johanson and Vahlne (2009) model exert their effect. The primacy of SEW disrupts the ability of current internationalization models to appropriately explain the behavior of family firms and may understate the difficulties relevant to family firms while internationalizing and the peculiarities of their solutions.

This study draws on Johanson and Vahlne (2009) supplemented by SEW theory to examine for and explain the multinationality of family firms. Linking the SEW perspective with traditional internationalization models enables us to delineate a research model investigating the impact of *international market knowledge* (the firm's knowledge and understanding of foreign stakeholders, rules, norms, and values associated with international markets, and its accumulated internationalization experience gained through international operations) (Eriksson, Johanson, Majkgård, & Sharma, 1997), *collaboration intensity* (the strength and frequency of any formal and informal relational interaction via personal meetings, cultivation of close relationships, and informal communication) (Lin & Germain, 1998), and *network trust* (the willingness of a party to be vulnerable to the actions of another party based on the expectation that the other will perform an action important to the trustor, irrespective of the ability to monitor or control that other party) (Mayer, Davis, & Schoorman, 1995) on family firms' multinationality. We do not predict that collaboration intensity and network trust directly affect family firms' multinationality.

Instead, we expect that a mediation effect by international market knowledge between collaboration intensity and family firms' multinationality is likely and network trust will moderate the relationship between collaboration intensity and the acquisition of international market knowledge. Family firms typically hold non-strategic ties such that collaboration intensity offers little security for its SEW as a direct pathway to internationalization. Thus, they must accumulate international market knowledge from their network partners first. Collaboration intensity can increase international market knowledge and this knowledge can then decrease the fear of SEW loss in turn, mediating the relationship between collaboration

intensity and multinationality. Moreover, because family firms emphasize personal contacts, only high levels of trust will allow them to accept and leverage the knowledge of their network partner. In turn, network trust is likely to moderate the relationship between collaboration intensity and the acquisition of internal market knowledge.

We offer two contributions. First, we supplement traditional internationalization theory by the SEW perspective to explain the multinationality of family firms. In doing so, we directly tailor our research to the specific characteristics of family firms enabling us to make a theoretical contribution to internationalization theory in this regard. The use of internationalization theories in family firm research is limited because they do not consider how family ownership and control affect internationalization (Pukall & Calabrò, 2014). We put forward how these are part of the causal mechanisms of SEW to examine how SEW preservation tendencies influence family firms' internationalization and reshape how the critical theoretical dimensions of the Johanson and Vahlne (2009) model exert their effects. Bringing SEW insights into internationalization theory resolves the shortcoming that current internationalization theories do not sufficiently account for the non-financial priorities of family firms in predicting internationalization. In turn, our work offers new knowledge to contextualize internationalization theory from the perspective of family firms, revealing mediation and moderation relationships that expand the accuracy and predictive ability of Johanson and Vahlne's (2009) model.

Second, our research contributes to the growing literature on the internationalization of family firms. Specifically, we respond to deficits reported by Kontinen and Ojala (2010) and Kraus, Mensching, Calabrò, Cheng, and Filser (2016) in our understanding of the role of networks in family firm internationalization. Bringing insights about network relationships from internationalization research offers a contribution to the family firm literature by revealing contingent circumstances explaining how some family firms can benefit from collaborating more intensively than is typical among these firms. In this respect, we also shed

new light on the role of trust and its effect on family firm internationalization. Family firms might consider internationalization strategies that involve high levels of trust in order to preserve their SEW endowment, which may have positive or negative effects on internationalization (Scholes, Mustafa, & Chen, 2015). We reveal this to be in the form of a moderation effect on the accumulation of knowledge though collaboration intensity as a driver of greater multinationality.

2. Theoretical Framework and Development of Hypotheses

In the following we set out the peculiarities of family firms' multinationality in light of SEW theory and the revised Uppsala Model by Johanson and Vahlne (2009), then present our research model and the detailed hypotheses.

The multinationality of family firms

Multinationality captures and understands internationalization as a complex and multidimensional strategic decision (Verbeke & Brugman, 2009). Unlike unidimensional views of internationalization as independent measures of foreign sales as a percentage of total sales, or foreign assets as a percentage of total assets, or number of foreign countries in which the firm is active, a multidimensional view implies that: multinational enterprises' actions across each of these dimensions are not independent from each other (Verbeke & Brugman, 2009); an enterprise can both export and own or control producing facilities in more than one country simultaneously (Dunning, 1971); internationalization is characterized by a complex decision-making process (Nielsen & Nielsen, 2011); and multinational enterprises can vary in the extent of their multinational activities (Kogut, 2001). Differing levels of risk and control as features of international activity will influence strategic choice because owners and managers of multinationalizing firms must maximize the *utility* of international expansion (Kraus, Ambos, Eggers, & Cesinger, 2015) and must *control* operations in a foreign country effectively to this end (Kogut, 2001). In family firms, those utilities are not limited to

traditional notions of economic or financial wealth but extend to the socio-affective and non-financial; and control extends to how the family retains its sovereignty over each aspect of business activity.

Empirical evidence suggests that family firms follow the 'establishment chain' of Johanson and Vahlne (1977). That is, they internationalize slowly, incrementally, avoiding risk, while gradually increasing the complexity of its forms and scope as resources and knowledge accumulate (e.g., Child et al., 2002; Graves & Thomas, 2008). Non-family firms tend to internationalize faster, take more economic risk, and exhibit greater multinationality (Gallo & Sveen, 1991; Pukall & Calabrò, 2014). Despite such apparent reluctance, there are examples of family firms that follow highly global strategies (Banalieva & Eddleston, 2011) (e.g., Wanzl GmbH: world market leader in shopping trollies with eleven production facilities worldwide and over 20 international sales subsidiaries). But, the findings of studies examining the influence of the defining features of a family business (family ownership and involvement) on its multinational activity have been inconsistent. For example, Calabrò et al. (2013), Cerrato and Piva (2012), George, Wiklund, and Zahra (2005), and Liu, Lin, and Cheng (2011) report negative influence by family involvement, ownership, and control on the degree of internationalization, but Zahra (2003) finds a positive effect by family ownership. Zahra (2003) shows that family ownership is positively associated with a wider scope compared to negative effects in Calabrò et al. (2013) and Lin (2012). These discrepancies about family firm internationalization have to do with the non-integration of insights from relevant internationalization theory (accounting for the means to internationalize) and SEW theory (accounting for the peculiarities of family firms). Reconciliation can start from the revised Uppsala Model of Johanson and Vahlne (2009).

The Network Internationalization Framework of Johanson and Vahlne (2009) and its value for family firms

To cope with the uncertainty surrounding multinationality, firms must learn. Doing so increasingly relies on network relationships (Johanson & Vahlne, 2009). Compared to the original Uppsala Model, the primary barrier to internationalization is not psychic distance but liability of outsidership, grounded in the lack of market-specific knowledge but resolved by network relationships as opposed to slow, internal accumulation (Johanson & Vahlne, 2009). Network relationships allow the firm to accrue *international market knowledge* as an outcome of relationships born from *collaboration intensity* and *network trust*.

Family firms rarely hold sufficient stocks of international market knowledge due to lower managerial skills and lower business experience compared to their non-family counterparts (Banalieva & Eddleston, 2011; Gómez-Mejía, Makri, & Larraza Kintana, 2010; Kuo, Kao, Chang, & Chiu, 2012). Network relationships held by family members with actors in its domestic and international environment, including managers of businesses from outside the family, customers, business partners, governmental institutions, among other stakeholders, can offer routes to new knowledge to lift the internationalization activities of family firms (Wright, Filatotchev, Hoskisson, & Peng, 2005).

The network perspective is valuable for investigating family firms (Kontinen & Ojala, 2010; Pukall & Calabrò, 2014) and the model by Johanson and Vahlne (2009) explains a large part of family firm multinationality. But, the mechanisms underpinning its dimensions of international market knowledge, collaboration intensity, and trust are likely to operate differently among family firms compared to their non-family counterparts because of the primacy given to affective utilities. Crucially, as Johanson and Vahlne (2009) appreciate, "business relationships provide a firm with an extended and unique resource base that it *only partially controls*… [and]… exploiting the potential of such an extended resource base requires that *the firm's own resources* be coordinated with those of one or several of its

partners" (p.1426, emphasis added). Such actions jeopardize family control and independence and the family would not be willing to risk access to its resources unless common ground between partners exists. This is repeatedly seen in the family firm literature which observes their tendency to connect with other family firms instead of just any business enterprise, resulting in non-strategic network ties forming and intensifying (Basly, 2007; Eddleston, Chrisman, Steier, & Chua, 2010; Kontinen & Ojala, 2012; Swinth & Vinton, 1993). This is to prevent the dilution of family control (Banalieva & Eddleston, 2011; Chang & Shim, 2015; Gómez-Mejía et al., 2007).

Socioemotional Wealth: the dominant logic in family firms and its implications for the Uppsala Model

While Johanson and Vahlne's (2009) model accommodates affective utility (in the form of trustful and collaboratively intense relationships), a very specific form of affective utility is crucial to understanding the divergent behavior of family firms: the SEW thesis. SEW represents the non-financial, affective aspects of the family firm, including its identity, the ability of the family to exercise authority, and the maintenance of its influence over business activity, all of which the owning family receives through its dominant position in the firm (Berrone et al., 2012; Gómez-Mejía et al., 2007). Family control and influence reflect the two most fundamental aspects of a family firm's SEW endowment (Zellweger, Kellermanns, Chrisman, & Chua, 2012).

The theoretical heritage of SEW, the only 'homegrown' theory of family firms (Berrone et al., 2012), is similar to the Uppsala Model by Johanson and Vahlne (1977, 2009) in that it too is grounded in bounded rationality and behavioral theory and is related to theories of learning. Gómez-Mejía et al. (2007) argue that SEW represents the main reference point for family firm owners' strategic actions such that "family firms are typically motivated by, and committed to, the preservation of their SEW" (Berrone et al., 2012, p.259). When there is a threat to

socioemotional endowment, the family firm is willing to make decisions that are not driven by economic reasoning (Berrone et al., 2012). Thus, SEW arguments (avoiding losses and preserving SEW) may outweigh economic benefits in guiding actions taken to become a multinational family firm.

Family firms exhibit a different pattern of internationalization because of heightened knowledge needs to protect family control, influence, perpetuation of the family identity, and prevent access to the family firms' assets by external parties (i.e., protect its SEW) (Berrone et al., 2010; Gómez-Mejía et al., 2010). The Johanson and Vahlne (2009) revised Uppsala Model does not answer this insofar as SEW preservation tendencies will influence the shape and effects collaboration intensity, trust, and international market knowledge have on family firms' multinationality. Networking behavior cannot drive internationalization unless it first provides access to international market knowledge. International market knowledge decreases family firms' fear of SEW loss and intervenes in the relationship between collaboration in networks and internationalization. In contrast to a rational search for knowledge with careful partner selection to achieve and expand internationalization, the family firm prioritizes close relationships to protect SEW. Thus, the degree to which collaboration intensity accumulates international market knowledge in the family firm relies on the trust within those relationships. Network trust is then likely to enhance the effect of collaboration intensity on international market knowledge.

Family firms' multinationality from the SEW perspective

Higher levels of international market knowledge reduce uncertainty, improve the perception of opportunities and risks, enable decisions, and improve scrutiny of alternatives to support internationalization into new markets through more risk-intensive investments (i.e., greater multinationality). Family members have deep levels of firm-specific knowledge (Chirico & Salvato, 2008; Zahra, Neubaum, & Larrañeta, 2007) and family firms rely on the individual

specialized knowledge of its family members (Arregle, Hitt, Sirmon, & Very, 2007). Family firms primarily accumulate *international market knowledge* in this fashion, as this provides the optimal safeguard for SEW and preserves family control and ownership (Pukall & Calabrò, 2014). Greater accumulated stocks of international market knowledge can alleviate family firms' concerns about the loss of SEW, motivating greater multinationality by better calibrating their ability to manage an internationalization opportunity.

However, rarely do family firms possess *sufficient* international market knowledge internally (e.g., Chirico & Salvato, 2008; Graves & Thomas, 2008) to become multinational, and must therefore go outside its borders to acquire it. Family firms will not recruit non-family external managers as a solution because doing so would jeopardize family influence and SEW (e.g., Arregle, Naldi, Nordqvist, & Hitt, 2012; Banalieva & Eddleston, 2011; Chang & Shim, 2015). Johanson and Vahlne (2009) theorize that network relations trigger and enhance such knowledge acquisition. But there is hesitancy among family firms to learn from outsiders, which is symptomatic of fears about SEW loss.

Family firms opt for networks that fulfill their aspiration for personal information and value coherence (Kontinen & Ojala, 2012), deep affinity, and kinship (Arregle et al., 2007) to safeguard SEW. This creates a barrier to external networks such that family firms rarely develop new networks (Basly, 2007; Gómez-Mejía et al., 2007), deepening well-established ties with business partners, customers, and other family firms instead (Pukall & Calabrò, 2014). They prefer intensive and long-term relationships with these stakeholder groups (Eddleston et al., 2010; Kontinen & Ojala, 2011a; Swinth & Vinton, 1993). Only through *collaboration intensity* can family firms start to reduce risks to their SEW and feel confident to acquire international market knowledge from their network partners as a forerunner to multinationality.

Family firms emphasize and prefer personal contact, and tend to prioritize network relationships with other family firms or at least those sharing common interests and values

(Kontinen & Ojala, 2012). Therefore, the extent to which collaboration intensity can accumulate international market knowledge likely depends on high levels of *network trust*. Trust is one of the most important mechanisms to facilitate inter-firm cooperation and is crucial in family firms' activities (Scholes et al., 2015). Mutual trust and the pursuit of common long-term term strategic goals enable the network participants to establish sustainable international, trust-based relationships with low conflict rates (Scholes et al., 2015). In such a network where trust is prevalent, trust will allow the family firm to accept and leverage the knowledge of their network partners, moderating the extent to which collaboration intensity accumulates international market knowledge. Through familiarity, shared values, a common history, and extended periods of interaction (Chrisman, Chua, Kellermanns, & Chang, 2007), *trust* mitigates concerns that non-family members (as outsiders) potentially endanger SEW.

According to Johanson and Vahlne (2009), trust and commitment to the relationship through intensive collaborations are prerequisites for successful learning and internationalization. In any other case, the firm suffers from liabilities of outsidership. But for family firms, collaboration intensity relies on high amounts of trust to accumulate greater stocks of international market knowledge, in which international market knowledge is the mediator between networking and multinationality. Through this process, SEW is safeguarded at each point and the family retains its control and influence over its endeavors. Figure 1 illustrates this research model.

Insert Figure 1 about here

Hypotheses

The mediating role of international market knowledge in family firm multinationality

Johanson and Vahlne (2009) posit that the formation of networks compensates for the lack of international market knowledge as a fundamental barrier to international market entry and

international growth. Family firms with small stocks of international market knowledge are less likely to internationalize into culturally-distant foreign markets, for example, for which a higher degree of international market knowledge is required (Gómez-Mejía et al., 2010). However, the failure to scale up this vital knowledge stock is a direct consequence of the affective utility the family firm attaches to protecting SEW. Family firms are then vulnerable to liabilities of outsidership because their fears about SEW loss orient them to accumulate international market knowledge carefully.

The liability of outsidership can be offset by networks (Johanson & Vahlne, 2009). Networks promote learning as a social process that benefits from individuals sharing experiences and information in social contexts. Collaboration intensity is of particular importance to family firms because new relational ties can induce a loss of control (Banalieva & Eddleston, 2011; Gómez-Mejía et al., 2007), and low collaboration intensity carries relational risks capable of jeopardizing SEW (Gómez-Mejía et al., 2007; Kontinen & Ojala, 2011a).

For this reason, family firms have fewer numbers of collaborations compared to non-family firms (Graves & Thomas, 2004), participate in fewer alliances with international partners (Kontinen & Ojala, 2011b; Pukall & Calabrò, 2014), and are reluctant to enter new networks with untested partners (Kontinen & Ojala, 2012). Instead, they prioritize network contacts with other family firms sharing common interests and values (Kontinen & Ojala, 2012) because doing so protects SEW. But for family firms, the idiosyncratic and typically personal ties characterizing their networks mean that they rarely have a breadth of strategic ties (Basly, 2007; Gómez-Mejía et al., 2007; Graves & Thomas, 2004; Kontinen & Ojala, 2012).

This liability is exacerbated by the tendency among family firms to need greater quantities of international market knowledge to take the first or next steps of internationalization (Gallo & Sveen, 1991; Pukall & Calabrò, 2014). As family firms are embedded in social systems,

collaboration intensity can provide family firms with information that resolve gaps in their current knowledge stocks to overcome this key barrier to greater internationalization activity (Pukall & Calabrò, 2014; Wright et al., 2005). This is possible because collaboration intensity can reduce perceived risk about the validity or usefulness of that knowledge and for internationalization as network partners collaborating intensely develop a joint understanding that is highly personal and distinctive.

Intensive collaborations that provide deep level, experiential knowledge about international markets can then contribute to informed decision-making about internationalization in a way that protects SEW. A high degree of collaboration intensity induces higher commitment among network partners, reducing the risks associated with resource exposure (and for family firms, this property wards off concerns about SEW loss). Collaboration intensity can therefore not only alleviate family firms' international market knowledge constraints, but its effect on multinationality will then come into play over international market knowledge. This mediation process should influence family firms' multinationality in ways that protect against a potential loss of SEW. Thus, we expect:

Hypothesis H1. International market knowledge mediates the relationship between collaboration intensity and the multinationality of family firms.

The moderating role of network trust on the acquisition of international market knowledge by family firms

In their revised Uppsala Model, Johanson and Vahlne (2009) propose that trust is a key mechanism for inter-firm collaborations to mobilize international market knowledge. Trust is then an important lubricant facilitating inter-firm cooperation. For example, when trust in network partners is high, a firm is more willing to rely on the actions of its partners in the belief that its wealth will not be intentionally harmed. For internationalization, this can manifest in a willingness to rely on advice, experience, and the use of intermediaries made

available through collaboration intensity without needing objective knowledge.

Collaboration intensity increases opportunities for knowledge transfer, but the amount of knowledge transferred depends on trust. Trust creates confidence (Edelenbos & Klijn, 2007) which improves information flow (Hoang & Antoncic, 2003) and simplifies coordination concerns (Johanson & Vahlne, 2009). Trust increases the sense of legitimacy surrounding knowledge available through intense collaboration. As trust increases, the family firm gains confidence in the stock of knowledge available through its partners, motivating its transfer. Therefore, the accumulation of international market knowledge through intense collaborations is likely to increase with high trust as that trust protects family firms' SEW.

Network trust is likely vital to protect family firms' SEW in further ways. For example, ties with non-family members may put the family's SEW at risk due to low goal alignment (e.g., Corbetta & Salvato, 2004; Davis, Allen, & Hayes, 2010) regardless of the joint understanding collaboration intensity creates. This is because the goals of family firms are mostly non-financial compared to economic goals held by non-family firms. Family firms bias participating in networks in which trust is prevalent (Cooper et al., 2005; Eddleston et al., 2010) as a way to further protect SEW. Trust is also related to SEW through binding social ties and studies have found that family firms will even abandon internationalization activity altogether if trust with its network partners is absent (Scholes et al., 2015).

Johanson and Vahlne (2009) theorize that trust and commitment to the relationship (through high collaboration intensity) are prerequisites for successful learning and we expect this to hold true for family firms, but only when trust is *high*. Only high network trust is capable of increasing confidence in the knowledge available through collaboration intensity to a level that mitigates worry about SEW. We therefore expect that trust forms a moderator of the relationship between collaboration intensity and the acquisition of international market knowledge. Thus:

Hypothesis H2. In family firms, network trust positively moderates the relationship between

collaboration intensity and international market knowledge.

3. Research Methodology

Sample and Data

Although a single operationalization of a family business remains elusive (De Massis, Kotlar, Chua, & Chrisman, 2014), there is agreement that the majority of capital (>50%) and the majority of top management power (>50%) must be in the hands of one or more family members (Miller, Le Breton-Miller, Lester, & Cannella, 2007). In light of the SEW perspective, we adopted these features to select family firms for inclusion in our study. It ensures that the owning family has substantial influence and control, and it reflects the family's high motivation for SEW preservation (Berrone et al., 2012). Under these circumstances, personal attachment to the firm and discretionary power will be high and SEW concerns will be more evident (Mensching, Kraus, & Bouncken, 2014).

Using secondary business databases (Schober and Creditreform), we identified representative family firms from the three major German-speaking countries. The selected family firms were then interviewed personally by telephone using a standardized questionnaire. This resulted in a final sample of 334 family firms from Germany (n=223), Austria (n=58), and Switzerland (n=53), representing several industries (manufacturing: n=143, IT: n=41, trade: n=35, and other industries each with n<15). The majority of firms in our sample (90.7%) are SMEs with less than 250 employees. The firms are on average 33 years old (median: 20 years). The majority of the firms are owned by the 1st generation (58%), 23% are owned by the 2nd generation, 11% by the 3rd, and 8% by the 4th and later generations. The average family firm's internationalization experience is 17 years (median: 13 years). The business directors are mainly male (89.9%) with a mean age of 50 years, the majority of which have a higher education degree (university diploma: 72.8%; master craftsman's diploma: 5.9%).

Measures

Measuring multinationality is a contested and largely unresolved issue in international business research (Hassel et al., 2003; Ramaswamy, Kroek, & Renforth, 1996; Sullivan, 1994; Verbeke & Brugman, 2009), with little consensus on which measure is best given equivocal conceptualization and inadequate measurement in empirical studies (e.g., Contractor, Kundu, & Hsu, 2003; Ruigrok & Wagner, 2003; Sullivan, 1994). The problem goes beyond consensus to one of form. For example, the majority of studies reviewed by Hsu and Boggs (2003) and Verbeke and Brugman (2009) employed a single-item measure such as proportion of foreign sales to total sales or proportion of foreign assets to total assets to assess multinationality. These capture only parts of being multinational. Also, most studies of family firm internationalization according to the reviews of Kontinen and Ojala (2010) and Pukall and Calabrò (2014) apply the ratio of foreign sales to total sales. But single-item measures do not capture multinationality consistent with the context of family firms from the SEW perspective (Pukall & Calabrò, 2014), in which a need to see the totality of multinationality is necessary to understand the degree to which one firm has multinationalized compared to another. Single-item measures may then give incomplete results about family firms' internationalization.

To measure the *multinationality* of the family firm, the risk that comes with international diversification and the extent to which investments or resource commitments have been made must be captured (because of the material impact these factors can have on SEW). The transnational activities spread index (TASi) (Ietto-Gillies, 1998) offers an appropriate measure for the degree of multinationality in this respect. The TASi measure has been used in international business and international entrepreneurship research (e.g., Fernhaber & McDougall-Covin, 2009; Gomes & Ramaswamy, 1999). Its calculation is: Multinationality = 1/3*(foreign sales/total sales + foreign assets/total assets + foreign employment/total employment)*[(number of foreign countries in which the company is active/total number of

countries with foreign direct investments) – 1]. The measure combines foreign sales as a percentage of total sales with foreign assets as a percentage of total assets into an index so that the magnitude of a family firm's multinationality can be quantified. To capture the risk involved, the index also includes the number of foreign countries in which the firm is active as a percentage of the total number of countries in which it has foreign direct investments. The TASi as a measure of multinationality is therefore appropriate to the context of family firms.

However, because international sales intensity represents a performance dimension and international asset intensity represents a structural dimension (Fernhaber, McDougall-Covin, & Shepherd, 2009), we run an additional analysis in the form of a robustness check to see whether these two components of the index are differentially affected by our independent variables. We also add to this analysis the international scope dimension. Thus, while the TASi measure provides an indication of the magnitude and totality of multinationality (our object of interest given the dominance of SEW in the strategic decision-making of family firms), we also test for the effects on its individual dimensions.

Network trust (α=.86) is operationalized as the network partner's trustworthiness following Zaheer, McEvily, and Perrone (1998). Three items measured this interpersonal trust between network partners. *Collaboration intensity* (α=.90) was assessed with three items consistent with Kotabe, Martin, and Domoto (2003) and Paulraj and Chen (2007). Both constructs were measured on a five-point Likert scale anchored 1 'do not agree at all' to 5 'strongly agree'.

Nine items from Zhou (2007) measure *international market knowledge* (2^{nd} order α=.92). It is a three-dimensional construct based on the conceptualization of Eriksson et al. (1997): *foreign institutional knowledge* (NK, 1^{st} order α=.91, 2^{nd} order λ=.78), *foreign business knowledge* (BK, 1^{st} order α=.82, 2^{nd} order λ=.97), *and internationalization knowledge* (IK, 1^{st} order α=.88, 2^{nd} order λ=.81). Each dimension was operationalized with three items. All items were measured on a five-point Likert scale: 1 'much worse than main competitors'; 5 'much

better than main competitors'. To prevent inflated standard errors due to high multicollinearity among the three knowledge dimensions, *international market knowledge* acts as a single second-order construct. All items show an excellent non-normality and non-independence adjusted measurement model fit. The measurement model is presented in Table 1.

Insert Table 1 about here

Larger family firms may exhibit higher multinationality (Casillas & Acedo, 2005). Increasing firm size dilutes family influence and control but can increase other SEW dimensions such as identification and emotional attachment (Gómez-Mejía et al., 2011; Pukall & Calabrò, 2014). Thus, we controlled for *firm size* by using the log-standardized number of employees in our research model. *Industry* may also drive multinationality (Cesinger, Fink, Madsen, & Kraus, 2012), which we controlled for with four industry dummies (manufacturing as baseline model, wholesale and retail, information and communication technologies, and others). Pukall and Calabrò (2014) and Strike, Berrone, Sapp, and Congiu (2015) maintain that generation has an influence on SEW preservation tendencies, and previous results demonstrate that the owning generation influences family firms' multinationality (Davis & Harveston, 2000; Gallo & Pont, 1996). Thus, we controlled for *family stage* by using the cumulative number of generations of majority family ownership. Higher *international experience* facilitates international opportunity recognition and the evaluation of associated risks and threats. Firms with longer international experience may also be present in more foreign countries, and may then choose more equity-intensive entry modes (i.e., exhibit higher multinationality). Thus, we controlled for international experience using the log-standardized number of years since the first internationalization decision. *Firm age* was also controlled for with the log-standardized number of years since firm foundation. Finally, *country of origin* was controlled for with dummy variables capturing whether firms were from Austria or Switzerland as opposed to Germany.

Statistical tests did not show any sign of common method bias, such as non-response bias comparing early vs. late telephone responders (Armstrong & Overton, 1977), Harman's single factor test, an additional confirmatory uncorrelated method factor with equally constrained loadings (H_0: LogL=–7,419.1, scf=1.44, p=99; H_1: LogL=–7,418.7, scf=1.48, p=100; ΔTRd=0.13, df=1, P=0.72; see Bryant & Satorra [2012] and Podsakoff, MacKenzie, Lee, & Podsakoff [2003]), or measurement model misspecification (e.g., tetrad-test for reflective vs. formative measures; see Bollen & Ting [2000]).

4. Results

We tested our hypotheses with covariance-based structural equation modeling (CB-SEM) in Mplus 7.2. We used the advanced LMS method by Klein and Moosbrugger (2000) implemented in Mplus 7.2 to test latent interactions. CB-SEM is more suitable than variance-based SEM as it offers a global fit evaluation, avoiding alpha error accumulation due to multiple testing, high flexibility to model specifications (such as second-order constructs), correlated residual variances of endogenous variables, and various non-normality and non-independency robust estimators (Muthén & Muthén, 2012). CB-SEM allows stronger theory testing in the absence of non-convergence, Heywood cases and other mal-specifications (Hair, Black, Babin, & Anderson, 2010).

Table 2 shows the results of all hypothesis tests. Of the control variables, international experience has a positive significant effect on international market knowledge (β=.102; P<.05); firm size relates positively to international market knowledge (β=.107; P<.05) and multinationality (β=.503; P<.001); and country of origin has a significant positive effect on multinationality (Austria, β=.222, P<.10; Switzerland, β=.477, P<.001).

Insert Table 2 about here

To examine Hypothesis 1 that international market knowledge mediates the relationship

between collaboration intensity and the multinationality of family firms, we test the first and second stage of the postulated indirect effect for significance. We thereby rely on the methodological approach suggested by Zhao, Lynch, and Chen (2010). The method by Zhao et al. (2010) is an extension of Baron and Kenny (1986) and allows the performance of analytical procedures that go beyond Baron and Kenny's (1986) method. Specifically, compared to Zhao et al. (2010), Baron and Kenny's (1986) method requires the conditional total/direct effect of the independent on the dependent variable to be significant in order to be mediated partially or totally by the mediator variable. Nevertheless, there may be significant indirect effects despite insignificant total effects (as the sum of the conditional direct and conditional indirect effect). The new 5-types of indirect effects put forward by Zhao et al. (2010) extend partial and total mediation by indirect-only effects. This allows investigators to detect competitive direct and indirect effects, or so-called suppressor effects, which Baron and Kenny (1986) do not consider (see Zhao et al. [2010] for a detailed analysis and discussion of the Baron and Kenny [1986] method).

Collaboration intensity increases international market knowledge (β=.164; P<.001) and international market knowledge fosters multinationality (β=.259; P<.01). By restricting the 2nd stage of the indirect effect to zero we evaluated the direct effect of collaboration intensity on multinationality in a pre-mediation model (PRE-MED: β=.029; P>.10) and its sensitivity towards free estimation of the 2nd stage in the full mediation model (MED: β=–.013; P>.10). The indirect effect of collaboration intensity through international market knowledge on multinationality is not significant on average (H1: β=.043; P>.10). However, closer scrutiny is required. Specifically, the proposed moderator, network trust, enhances the effect of collaboration intensity on international market knowledge (H2: β=.086; P<.01). Thus, while H1 is not supported independently of network trust, because H2 itself is supported, the significance of H1 is conditional on H2 (i.e., levels of network trust). The significant first-stage moderation indicates a mediated moderation effect therefore (following Edwards &

Lambert [2007]).

To examine this phenomenon fully, Figure 2 shows the region of significance for the marginal indirect effect of collaboration intensity through international market knowledge on multinationality for varying sample-related (asymmetric) levels of network trust. The marginal indirect effect reaches positive significance within a range of -0.2 SD to 0.4 SD from mean levels of trust (see Edwards & Lambert's [2007] recommendation for decomposition of effects). Moreover, Figure 3 depicts the total effect as the sum of both marginal direct and indirect effects of collaboration intensity on multinationality and emphasizes the importance of inter-relational network trust as the "integral lubricant of economic exchange" (Knights, Noble, Vurdubakis, & Willmott, 2001, p.312), reaching positive regions of significance for 0.6 SD above average levels of trust. Thus, we observe mediated moderation as a result of this analysis.

Insert Figures 2 and 3 about here

We ran additional robustness checks to assess the generalizability of our findings. First, we checked for potential quadratic effects to avoid spurious significances due to highly correlated higher-order product terms. This favors more realistic models with conditionally monotone, rather than conditionally linear relationships (Carte & Russell, 2003; Ganzach, 1998). None of the direct quadratic terms were significant and results remained consistent with the presented parsimonious model.

Second, we reassessed the structural model to examine how our predicted relationships hold against the individual dimensions of our multidimensional index. In this analysis, we estimated the residual covariance between international sales intensity and international asset intensity to account for dependency among these measures beyond our conceptual model. Running separate analyses did not produce differences in the significances of the tested hypotheses. First, using STDYX Standardization, the MLR-estimates of bivariate correlations

among the three dependent variables indicate how much they overlap. As indicated in Table 3, all measures correlate positively and highly significantly. In the robustness check (Model B) we focused on international sales intensity and international asset intensity in place of scale. International scope, the absolute number of foreign countries in which the firm has foreign direct investments, was tested separately in Model C.

Insert Table 3 about here

Table 2 indicates how the structural equation part of our final model (Model A) changes when substituting TASi by international sales and international assets (Model B). In terms of our control variables, multinationality (TASi) is more strongly affected by firm size although firm size is positively related to all internationalization dimensions. Also, IT industry firms seem to follow an internationalization strategy that focuses more strongly on international assets than on international sales. Collaboration intensity directly affects international sales intensity and there is an additional positive 2nd stage interaction for the international sales model. Thus, the indirect effect of collaboration intensity is even stronger affected by inter-organizational trust. Model C focuses on a firm's number of foreign countries with foreign direct investment (Min=0, Max=28, Mean=3.1, SD=6.3) reflecting the absolute international scope (transformed logarithmically to account for the natural skew of count variables). Model C reveals that network trust inhibits the absolute international scope, especially under high collaboration intensity. International market knowledge is positively related to all internationalization dimensions as expected.

5. Discussion and Conclusion

Our intention with this work was to show that internationalization theory and the literature on family firm multinationality could enrich each other by bringing together the network-based Uppsala Model of Johanson and Vahlne (2009) with the SEW theory of family firms.

Johanson and Vahlne's (2009) model appreciates that affective utilities shape firm behavior towards internationalization. Family firms' unique behavior compared to their non-family counterparts is directly ascribed to the importance they attach to SEW preservation. Bringing these theories together enabled a theorization of how staples in the international business literature in the form of collaboration intensity, international market knowledge, and network trust affect the multinationality of family firms. We put forward how SEW preservation reshapes the effects these three critical theoretical dimensions exert on family firm multinationality. Our theoretical framing and empirical results show that family firms behave differently than expected from extant international business theory. International market knowledge mediates the relationship between collaboration intensity and multinationality but only under conditions of high network trust. While international market knowledge remains crucial to multinationality, its accrual depends on collaboration intensity as its antecedent, and that relationship itself is contingent on network trust as a moderator of their relationship. Family firms prioritize their SEW above the pursuit of economic gain and this leads to behaviors that extend new theoretical explanations as our empirical findings reveal. We offer two specific contributions.

First, we supplement traditional internationalization theory by the SEW perspective to explain the multinationality of family firms. In doing so, we tailor expectations about how family firms build international market knowledge, enact collaboration intensity, and prioritize network trust in pursuit of multinationality. Considering the dominance of SEW in family firms enables us to make a theoretical contribution extending and contextualizing the elements found in Johanson and Vahlne's (2009) revised Uppsala Model to family firms. We thus offer a new causal mechanism to this model, SEW, and theoretically explain and empirically exception see Scholes et al. [2015]) demonstrate the relationships among collaboration intensity, international market knowledge, trust, and family firm multinationality. Bringing insights from SEW into internationalization theory resolves the

shortcoming that present internationalization theories do not sufficiently account for the non-financial priorities of family firms in their predictions of internationalization. Our theorization and empirical evidence is one of the first works to help contextualize internationalization theory from the perspective of family firms, expanding the accuracy and predictive ability of Johanson and Vahlne's (2009) model.

For example, we reveal that the relationships among collaboration intensity, network trust, and international market knowledge are more nuanced for family firms compared to expectations harbored in behavioral internationalization theories such as the revised network-based Uppsala Model (Johanson & Vahlne, 2009) and the recent SEW-focused internationalization debate (Pukall & Calabrò, 2014). We reasoned that SEW drives family firms to prioritize collaboration intensity and network trust. Collaboration intensity directly affects international market knowledge and this relationship itself is moderated by trust. As postulated in Johanson and Vahlne's (2009) model, we find empirical evidence that, for family firms, international market knowledge is crucial to multinationality.

While this appears on the surface to be a simple extension of Johanson and Vahlne's (2009) expectation, the predictive mechanism, SEW, is quite different. An explanation for this can be found in the preservation of SEW itself. In their efforts to preserve SEW, family firms become loss averse to compromising their stock of SEW (Berrone et al., 2012; Gómez-Mejía et al., 2007). In turn, family firms develop network relationships in ways that do not dilute SEW. Entrepreneurship scholars have theorized a tendency among entrepreneurial firms to start with identity-based networks that evolve into calculative, strategic networks (Hite & Hesterly, 2001). But family firms' desire to safeguard SEW (theoretically) slows down this evolution, and the current Johanson and Vahlne (2009) model arguably relies on that evolution in how it predicts the effects of collaboration on internationalization. Family firms' networks tend to remain identity-based (Kontinen & Ojala, 2011a; Musteen et al., 2010; Swinth & Vinton, 1993) Even by increasing collaboration intensity and undertaking trust

building behavior, these actions do not drive internationalization in isolation. Our results also show that on average there is no significant mediation effect by international market knowledge on the relationship between collaboration intensity and multinationality *unless* high amounts of trust are also present. Thus, regardless of the independent effects of collaboration intensity on the accrual of international market knowledge and its effect on multinationality, trust is a fundamental parameter for family firms.

We found that intensive collaboration in networks enlarges the accumulation of international market knowledge. International market knowledge in turn is found to positively influence family firm multinationality. Network trust plays an important role in this context, as higher levels of network trust elevate the effect of collaboration intensity on international market knowledge and high trust turns the indirect effect of collaboration intensity on multinationality into a significant relationship. Consequently, for family firms, networking with trust is crucial for its impact on internationalization outcomes. In the absence of networking, international market knowledge is known to derive solely from a slow, measured, and ownership-oriented internationalization approach among family firms (Gallo & Sveen, 1991; Pukall & Calabrò, 2014). It is therefore wrong to assume that networks hold the same form of value and meaning for family firms' internationalization as they do for non-family firms. Rather, networks in which high trust is prevalent have a higher value for family firms' internationalization. Our theorizing and empirical findings help extend the predictive ability of Johanson and Vahlne's (2009) important model, therefore.

Second, integrating themes about collaborative relationships from internationalization research offers contributions to the family firm literature by revealing contingent circumstances explaining how some family firms can benefit from collaborating more intensively than is typical among their peers. A purposeful network-based learning activity yields new international market knowledge for further expansion of the family firm in ways that not only protect its SEW but also offers opportunities for its international growth. Our

findings contribute to resolving deficits reported in the family firm literature about formally understanding the role of networks in family firm internationalization (Kontinen & Ojala, 2010; Kraus et al., 2016), empirically validating emerging propositions about how networks can benefit the internationalization of family firms (Pukall & Calabrò, 2014), and the key dimensions in achieving this benefit. The magnitude of the relationship between collaborative intensity and the accumulation of international market knowledge is moderated by network trust.

According to our findings, without trust, relations across organizational borders and the international market knowledge residing within will not unfold to their full potential. This is of great importance to family firms, whose first priority is the basic shared and implicit family value system held within their SEW. Therefore, it will be harder and take longer for family firms to find network partners with whom they feel at ease so as not to jeopardize SEW. If family firms do not find trustworthy partners, studies suggest the decision to internationalize will be abandoned completely (Scholes et al. 2015). Developing a network of trusted partners takes time and as a result so does building up a sufficient base of international market knowledge. The accumulation of this essential resource is longer than when a firm is ready to rely solely on weak ties, which provides a refined explanation for why family firms tend to internationalize slower and act in ways that follow the Uppsala tradition than is currently known. Our wider findings also show that higher levels of trust moderately enhance the effect of collaboration intensity on multinationality indirectly through international market knowledge. Thus, trust again appears to be a vital condition for family firm multinationality.

Managerial Relevance

Intensive collaborations with network partners are important to acquire knowledge of international markets. Family business managers should therefore cultivate a variety of network relationships through intensive collaboration. As these relationships are a

fundamental basis of knowledge sharing, family business managers will develop and enrich their international market knowledge through intensive collaboration. This can also help them to overcome their fear of SEW loss. Trust then plays a key role. Family firm managers should therefore, aside from intensively collaborating, develop and cultivate trustful relations with their network partners. We however call to attention that family managers should not trust their partners blindly. Trust can generate and reinforce one-sided perspectives and knowledge. Both could contribute to poor decision making resulting in suboptimal strategic choices, which can endanger family firms' SEW.

Limitations and Future Research

Our contributions to both internationalization and family firm literatures are tempered by some limitations. Applying the TASi as a measure for multinationality, this paper's findings help to shed light on family firm multinationality by going beyond the one-dimensional indicators commonly applied in family firm internationalization research. The TASi captures a wider extent of international involvement in terms of resource commitment and the spread of international activities in the global economy. However, the measure has its shortcomings. A composite measure hides nuances among its components, potentially-relevant variations, and information that might be detected if single-item measures were used as multiple dependent variables. We sought to reduce this problem with additional analysis in the form of robustness checks for effects among the three dimensions of international sales intensity, international asset intensity, and international scope. But a need for additional measures remains. For example, the TASi, nor its components, capture whether internationalization is globally balanced or regionally focused; it does not capture geographic/cultural proximity/distance or how related/unrelated the global activities are; nor does it capture firms' initial motives for going international and whether these were met. The TASi, as well as other common composite measures, also cannot mirror international strategy and so the nature of

international specialization, configuration, and coordination of activities or the value chain remains somewhat unknown (Asmussen et al., 2007). For this, the index developed by Asmussen et al. (2007) might be suitable. Several of these factors are outside the scope of this study and do not in itself invalidate the measure we selected. But they do reflect important areas for future research and such studies would benefit from using wider measures of multinationality.

Another limitation may arise when participating family firms are drawn from different underlying populations: local firms that do not internationalize at all despite all potential benefits, and an overlaid truly normally distributed population of internationalizers. In case of such a mixed distribution, inferences may be biased or inefficient even for robust estimators and decomposition of the sample becomes necessary. Finite mixture modeling with latent classes may provide additional insights but requires greater sample sizes. Similarly, this study analyzed family firms in German-speaking countries. The results might not generalize to culturally- and geographically-different regions. International comparisons offer opportunities to map cross-cultural differences of family firms in their internationalization behavior from an SEW perspective.

Future research could address the most successful configuration of interorganizational collaborations for family firm internationalization. This could concern, for example, detailed insights into the mixture of strong and weak ties, local vs. global dispersion of network partners, family vs. non-family firm networks, or competition vs. collaboration vs. coopetition among actors. Furthermore, family firms need to develop trust in a world where at least some of its resources such as tradition, societal boundaries, and family ties appear to have diminishing importance (Edelenbos & Klijn, 2007). Hence, showing how family firms build and maintain trust or how they manage trust (Johanson & Vahlne, 2009) would also enrich this nuanced perspective on family firm internationalization.

Knowing how quickly family firms initiate their internationalization, how rapidly they

increase their resource commitments, and how quickly they approach multiple markets may contribute to a better understanding of the entrepreneurial component of internationalization behavior among family firms under prevailing trust. For this, we advise the application of an expanded measure of SEW such as the inventory proposed by Berrone et al. (2012), which could further explain family firms' divergent internationalization behavior.

Internationalization as a complex decision-making process includes conflicting criteria and trade-offs (e.g., Nielsen & Nielsen, 2011) while actors try to maximize their utility (Kraus et al., 2015). Understanding which choice has the highest utility for family firm CEOs from an economic *and* SEW perspective should be part of the future research agenda. A promising approach to acknowledge the possibility of both SEW losses and gains in these trade-offs might be the consideration of prospect theory (Kahnemann & Tversky, 1979) and the concept of mixed gambles (Gómez-Mejía, Campbell, Martin, Makri, Sirmon, & Hoskisson, 2014).

Conclusion

Our work offers new insights to the international business and family firm literature on the primacy of, and the important role played by, SEW preservation as a theory to examine and explain family firms' multinationality. If this article could communicate only one message, we would like it to be that international business research needs to give further care and attention to this important group of firms and develop new and revised theories capable of predicting their internationalization along with their non-family counterparts. The theoretical framing and empirical findings herein offer a way forward to achieve this important goal.

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Table 1: Measurement model

Construct	*Item*	*1st Order Std. Factor Loading*	*2nd Order Std. Factor Loading*	*Cronbach's α 1st (2nd)≥0.7*	*Composite Reliability 1st (2nd) ≥0.6*	*AVE 1st (2nd)≥ 0.5*	*Fornell-Larcker 1st (2nd)<1*
International Market Knowledge (Eriksson et al., 1997; Zhou, 2007)	BK1 - Knowledge about the needs of foreign clients/customers.	.730	.972	.817 (.920)	.826 (.892)	.614 (.736)	1.177 (.139)
	BK2 - ... about foreign distribution channels.	.860					
	BK3 - ... about effective marketing in foreign markets.	.755					
	NK1 - ... about foreign language and norms.	.863	.784	.905 (.920)	.906 (.892)	.762 (.736)	.948 (.139)
	NK2 - ... about foreign business laws and regulations.	.889					
	NK3 - ... about host government agencies.	.866					
	IK1 - ... about determining foreign business opportunities.	.806	.805	.876 (.920)	.877 (.892)	.703 (.736)	.992 (.139)
	IK2 - ... about dealing with foreign business contacts.	.855					
	IK3 - ... about managing international operations.	.854					
Collaboration Intensity (Kotabe et al., 2003; Paulraj & Chen, 2007)	Before internationalizing NW03_1 - … I had frequent exchange with my network partners.	.892	-	.898	.901	.753	.179
	NW03_2 - … I maintained close relationships with my network partners.	.931	-				
	NW03_3 - … informal discussion between my network partners and me existed.	.773	-				
Network Trust (Zaheer et al., 1998)	NW04_1 - Our network partners keep their promises.	.870	-	.859	.866	.685	.197
	NW04_2 -We can trust our network completely.	.895	-				
	NW04_3 -We have always been evenhanded with our network partners.	.704	-				
Measurement Model Fit	Maximum Likelihood Robust Estimation: LogL=-5,344.03, parameters=51, scaling correction factor=1.248, Chi-sq (d.f.)=159.56 (84), Scaling Correction Factor=1.135, RMSEA=.052 (90% C.I.: .039; .064); CFI=.971; TLI=.963; SRMR=.039.						

a: All factor loadings are significant (t>3.1 and p<0.001 respectively); b: Bagozzi & Baumgartner (1994); c: Nunnally (1978); d: Bagozzi & Yi, (1988); e, f: Fornell & Larcker (1981).

Table 2: Path coefficients

N=334 family firms	A: *INT_ KNOW*	A: *TASi (PRE-MED)*	A: *TASi (MED)*	B: *INT_ KNOW*	B: *SALES (PRE-MED)*	B: *SALES (MED)*	B: *ASSET (PRE-MED)*	B: *ASSET (MED)*	C: *INT_ KNOW*	C: *LN COUNT (PRE-MED)*	C: *LN COUNT (MED)*
Control variables:											
International experience (log_std)	.102*	–.014	–.012	.102*	.114†	.086	.006	–.014	.103*	.029	–.004
Age of family firms (log_std)	.000	–.089	–.089	.001	–.101	–.101	.038	.038	.001	–.070	–.071
Size of family firms (log_std)	.107*	.531***	.503***	.106*	.253***	.224***	.204*	.184*	.106*	.488***	.453***
Country of origin (Austria)	.017	.226†	.222†	.023	.408***	.402**	.190	.186	.022	.152	.145
Country of origin (Switzerland)	–.049	.464**	.477**	–.045	.278†	.290†	.186	.195	–.046	.195	.210
Family stage	–.053	–.047	–.034	–.053	–.051	–.037	–.035	–.025	–.053	.071	.088†
Industry: trade	.155	.209	.168	.153	–.222	–.264	.413†	.384	.152	.472**	.423*
Industry: IT	–.091	.098	.121	–.094	–.414*	–.388*	.393†	.411*	–.093	.028	.058
Industry: others	.067	–.052	–.070	.065	–.244*	–.262*	.056	.044	.065	–.029	–.050
Direct effects:											
Collaboration intensity	.164***	.029	–.013	.164***	.150**	.105*	.012	–.019	.164***	.109†	.056
International market knowledge	–	@0	.259**	–	@0	.275**	@0	.190†	–	@0	.323**
Network trust	.049	–.093	–.106	.050	.038	.025	.088	.078	.049	–.288***	–.304***
Indirect effects:											
H1: Collaboration intensity through INT_KNOW	–	@0	.043	–	@0	.045	@0	.031	–	@0	.053
Interaction effects:											
H2: Collaboration intensity X network trust (1st lag interaction and controlled direct effect interaction)	.086**	.139†	.117	.085**	.029	.006	.058	.042	.084**	–.116*	–.143**
International market knowledge X network trust (controlled 2nd lag interaction)	–	–.141	–.141	–	.218†	.218†	.058	.058	–	.055	.055
				Resid. corr.	.172***	.154**	.172***	.154**			

Global MED-Model Fits:
A: LogL=–7,419.10, parameters=99, scaling correction factor=1.437, AIC=15,036.19, adj. BIC=15,099.46
B: LogL=–8,108.94, parameters=118, scaling correction factor=1.351, AIC=16,453.88, adj. BIC=16,529.28
C: LogL=–7,426.84, parameters=99, scaling correction factor=1.372, AIC=15,051.67, adj. BIC=15,114.94
† P<.10, * P<.05, ** P<.01, *** P<.001, @0 indicates the restriction of a parameter to zero, i.e. exclusion from model estimation.

Table 3: MLR-estimates of bivariate correlations among TASi, international sales intensity, and international asset intensity as dependent variables

	Estimate	**S.E.**	**Est./S.E.**	**Two-Tailed P-Value**
TASi with				
INT_ASSET	0.383	0.091	4.190	0.000
INT_SALES	0.234	0.046	5.102	0.000
INT_ASSET with INT_SALES	0.271	0.070	3.874	0.000

Figure 1: Research model

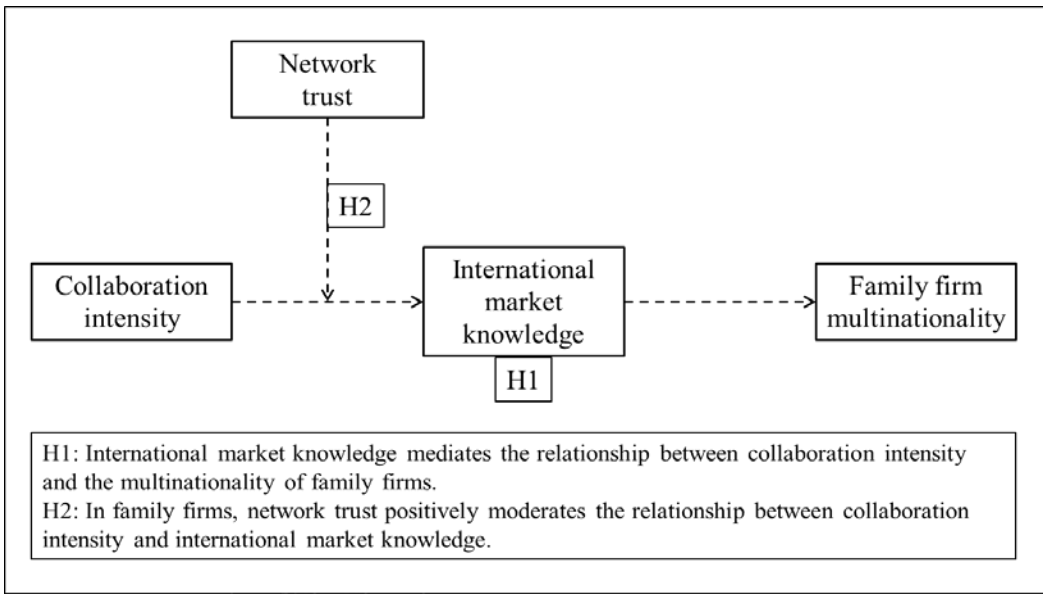


Figure 2: Indirect effect of collaboration intensity through international market knowledge on multinationality

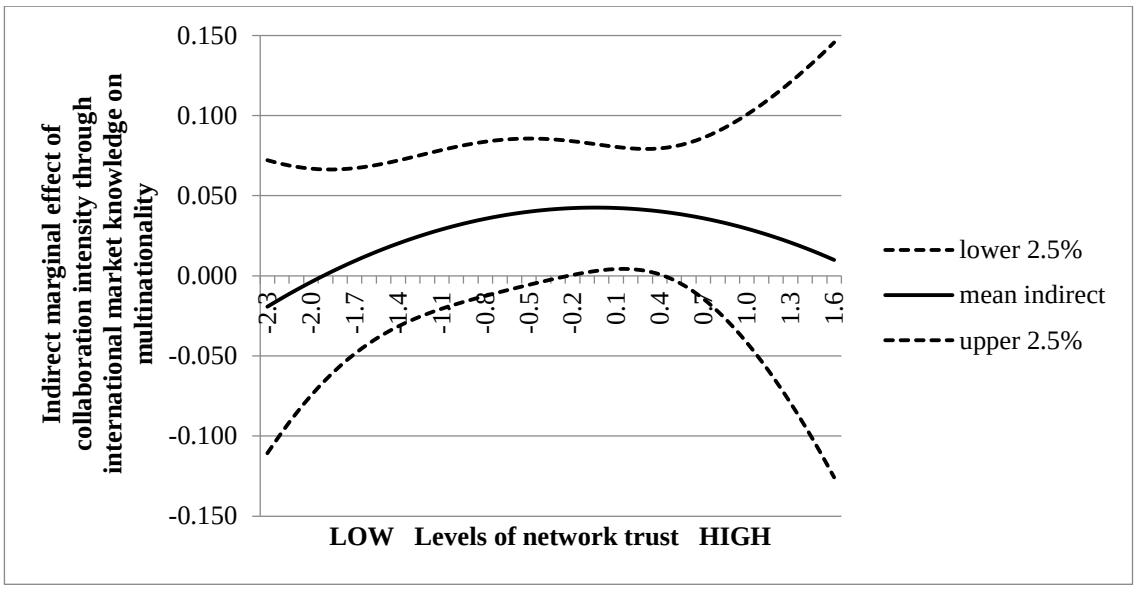


Figure 3: Total effect of collaboration intensity on multinationality

