

The antecedents of information exchange in export business networks

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Abstract. This research examines information exchange within export-firm networks. The authors draw upon relational contract theory and the network approach to better understand the role played by information exchange in business networks. The empirical study is based on a survey conducted among 317 French exporters. The results, obtained using structural equation modeling, show that sense of belonging to a network and socialization between members influence information exchange between export managers. They also reveal that socialization acts as a variable that mediates the link between sense of belonging and information exchange. Last, the results identify the antecedents of three constructs drawn upon by the authors. Our work emphasizes the importance of socialization for the functioning of networks and allows us to propose the concept of “network socialization,” which concerns the actions undertaken by the members of a network to integrate new actors.

Keywords: internationalization, export, information exchange, business network, socialization

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INTRODUCTION

In a context of economic globalization and market interdependence, many firms are strengthening their international presence in order to seize new growth opportunities. They often choose to develop by exporting, at least to begin with, in order to limit their commitment and the risks entailed by setting up a local base (Dominguez, 2016; Mayrhofer & Urban, 2011). Performance achieved through exporting is variable, however, owing chiefly to a lack of target-market knowledge and of international experience (Navarro-García, Sánchez-Franco & Rey-Moreno, 2016; Obadia, Bello & Gilliland, 2015). Knowledge-sharing by exporters may be a way to improve export-business performance.

As part of their international expansion, export firms must build relationships with many actors (Galkina & Chetty, 2015; Gallais & Boutary, 2014). Networks are now playing a central role in the business-internationalization process (Johanson & Vahlne, 2009). Defined as a set of actors (or organizations) and some set of relationships that link them (Hoang & Antoncic, 2003; Johanson & Vahlne, 2009), networks are a key resource given their many positive effects (Musteen, Datta & Butts, 2014). Because of their limited resources, firms use a variety of networks to successfully expand into international markets. Networks enabling business people to exchange export information may be public, parapublic, or private. For example, Bpifrance, Business France, and the Chambers of Commerce and Industry (CCIs) have set up networks so that firms seeking

to develop internationally can connect more easily. So have private-sector bodies such as Classe Export and La Fabrique de l'Exportation, which run networks enabling export firms to meet and share their international experiences.

The literature shows that sharing experience with other top managers in formed networks gives access to new information and business opportunities abroad (Catanzaro, Messeghem & Sammut, 2015a, 2015b; Welch, Welch, Young & Wilkinson, 1998). Several pieces of research confirm the positive effects of acquiring export-activity-related information on performance achieved through international strategies (Souchon & Diamantopoulos, 1996; Theodosiou & Katsikea, 2013). Papers examining the factors that enhance generation of export information (Souchon, Dewsnap, Durden, Axinn & Holzmüller, 2015) and acquisition of export information (Theodosiou & Katsikea, 2013) highlight the key role played by networks, but do not pinpoint the determinants of information exchanges that develop in networks that firms set up. The present paper, which covers the exchange of information in export-business networks, aims to fill this theoretical gap. Our work breaks new ground, as it examines the factors that promote information exchange in networks. Knowing these factors may make it easier to form and run the networks we studied. Our investigations may help improve the efficiency of export-business networks, but also of other types of network that gather top managers keen to share their experiences in an area of management. Our investigations thus enrich the literature on the workings of business networks.

The purpose of our research is to identify the antecedents of export-information exchange between top managers in the same network. Our empirical study is based on a survey conducted among 317 French exporters who are members of a business network. Our results show that a sense of belonging to a network and socialization between its members influence information exchange between export managers. They reveal that socialization acts as a variable that mediates the link between a sense of belonging and information exchange. Our statistical analyses also identify the antecedents of the three constructs we drew on.

In the first section of our paper, we present the chosen theoretical framework and the proposed research model. In the second section, we explain our methodology, then analyze and discuss our empirical investigations.

INFORMATION EXCHANGE IN EXPORT-BUSINESS NETWORKS: WHAT ARE THE ANTECEDENTS?

To better understand the role played by information exchange in export-business networks, we first draw upon relational contract theory (Macneil, 1978, 1980) and on the network approach (Johanson & Mattsson, 1987; Johanson & Vahlne, 2009). This leads us to propose a series of hypotheses that aim to test the influence of the antecedents identified in information exchange between export managers.

Our theoretical choices were driven by our research objective, namely identifying the antecedents of export-information exchange between top managers in the same network. Social exchange theory focuses on exchange relations, and chiefly the interactions and behaviors of individuals in a long-term exchange arrangement (Macneil, 1978, 1980). The networks analyzed in this research can be likened to this type of system. The network approach yields a better understanding of the role of networks in firms' push to expand internationally (Johanson & Mattsson,

1987; Johanson & Vahlne, 2009). We consider that combining these two theories is particularly suitable for the study of information exchange in export-business networks, insofar as it aids understanding of the interactions of stakeholders in networks that aim to help firms internationalize their activities.

There are other theoretical models that focus on exchange relations. For example, transaction-cost economics allows study of the governance of contractual relations, but is based on the principle of opportunistic behaviors (as opposed to the concept of trust, which plays an essential role in the networks we studied) and is focused on vertical relations (of the customer–supplier type) (Williamson, 1991). Likewise, the resource dependence model allows analysis of a firm’s interactions with other actors in its environment. This theoretical framework emphasizes stakeholders’ interdependence and how this influences firms’ tendency to associate. The relations studied are those formed between competitors (competitive interdependence) and those formed between firms vertically linked in the manufacturing process (symbiotic interdependence) (Pfeffer & Salancik, 1978). Such relations do not pertain to networks that bring firms together in a more informal framework, such as those studied in our research. We therefore decided not to draw on these two fields of theory.

RELATIONAL CONTRACT THEORY AND THE NETWORK APPROACH

We will first develop social exchange theory before explaining the network approach.

Developed by Macneil (1978, 1980), relational contract theory holds that in interpersonal and inter-organizational relations, it is not possible to anticipate or formalize all the elements inherent to the relationship because the actors can pursue multiple objectives. The author considers that these exchange relations, which may take varied forms, sit in a continuum between the classical contract and the relational contract. Whereas in a classical contract, the terms of the transaction are firm and the monetary dimension foremost, this is not true of a relational contract, where the written contract comes with flexible relational norms that supplement the overall agreement between the parties. A relational contract, which typically runs over the long term, is established with a will to maintain flexibility and the possibility of changing its initial terms. The norms of a relational contract, which pertain to feelings and behaviors deemed acceptable by members of a same exchange system, determine the interactions between individuals. A relational contract includes a strong social dimension, which emphasizes interaction and runs durably (Macneil, 1978, 1980).

Exporting, which consists of selling products or services to customers located abroad (Mayrhofer & Urban, 2011, p. 139), enables firms to develop new business opportunities but at the same time exposes them to difficulties arising from a lack of information about foreign-market characteristics. In this respect, Johanson & Wiedersheim-Paul (1975) state that information asymmetries are a key element insofar as they influence firms’ expansion trajectory and their attitude to foreign markets. Firms must also display greater flexibility to address the specificities and evolution of their target markets. Macneil (1978, 1980) stresses that in an unfamiliar or unstable environment—such as the international environment—individuals often have less knowledge because the information at their disposal is incomplete. Firms are therefore forced to solicit external resources in order to offset these difficulties and access the required information. In doing so, they often mobilize the networks to which they belong. Relational contract theory also highlights the role of reciprocity and of the temporal dimension

in exchange relations. A network can operate only if its members become involved and pool resources.

The work done by Ferrary (2001) on exchange dynamics in innovation networks shows that the dynamics of these networks varies according to the nature of their members' relations. When the relationship is contractual in nature, exchanges are dictated by the terms of the contract and are generally of short duration (as stakeholders are not concerned to develop future relations). Conversely, social relations allow the creation of more stable and durable networks, within which members willingly share "their resources and information with the other members of the network, while running the risk of not immediately receiving anything in return" (Ferrary, 2001: 278). Accordingly, members' socialization is a key dimension in the dynamics of networks, insofar as information exchange between members ensures that the networks function well and are long-lasting. The work done by Uzzi (1997) shows, more broadly, that the existence of strong ties—coupled with long-term relations between several stakeholders—often causes high investment geared to meeting the objectives set by the various parties.

The Uppsala model, proposed by Johanson and Vahlne (1977), shows that firms, when internationalizing, draw upon various categories of information. The use of information varies according to their stage of international expansion. Firms that are starting to export are chiefly interested in general information on their target markets (objective information). Generally, these secondary data are easily accessible and transferable between actors. They are mainly useful in the initial phases of internationalization, and subsequently have only a lesser role as they do not provide any competitive advantage (Fletcher & Harris, 2012). Conversely, firms with extensive international experience often seek more specific information. This information is harder to access and may be a source of differentiation. It is specific to the target market, results chiefly from experience, and is difficult to transfer to another actor. Eriksson, Johanson, Majkgard and Sharma (1997) point out that accumulating this type of information is long and costly because the operations to gather, transmit, and interpret it are situation-specific. The Uppsala model suggests that the type of information and the sources drawn upon depend on firms' stage of internationalization and on their international experience.

For firms developing their export activity, networks are an essential way of finding information and offsetting their lack of resources and knowledge regarding foreign markets. Johanson and Mattsson (1987, 2002) state that internationalization hinges on a firm's ability to build ties and position itself vis-à-vis various actors abroad (suppliers, customers, public bodies, etc.). Amal and Rocha Freitag Filho (2010) point out that internationalization performance depends primarily on firms' ability to be innovative and proactive, and to learn through the development and consolidation of local, national, and international networks. A network may be defined as a set of ties built by and among individuals and/or organizations (Hoang & Antoncic, 2003; Johanson & Vahlne, 2009). Its main purpose is to connect actors who are pursuing similar objectives and wish to work together, more or less formally, to increase mutual benefit (Jack, Anderson, Moulton & Dodd, 2010). Networks are a major source of reliable and relevant information, enabling firms to identify and seize new opportunities and also to develop lasting trust-based relationships with foreign partners (Johanson & Vahlne, 2009). Consequently, belonging to a network means that actors undertake to interact and to share their resources, especially their information, in a long-term perspective. It is

necessary to develop trust-based relationships between network members, who must display a clear will to become involved in its activities.

Huggins (2010) states that it is necessary to distinguish between two types of networks: “social” networks, which function on the basis of trust, mutual obligations, and the satisfying of their members’ social expectations; and “calculative” networks, governed by the satisfying of their members’ economic expectations. The former, centered on interpersonal ties, are stable and durable but generate more social than economic value. The latter are centered on inter-organizational relations. They are unstable and short-lived, but give their members access to the knowledge they require to make their business activities more profitable (Catanzaro, et al., 2015a). Despite bringing opportunities, networks also expose firms to a set of risks—lack of transparency in relationships, opportunism, dependence on certain key members, etc.—that can be overcome only by developing and consolidating trust-based ties between individuals. Network operation is therefore conditional on interactions between its members (socialization, especially face-to-face), which depend on their sense of belonging to it. This sense of belonging—a “behavioral” guarantee that the network will operate well (Poppo & Zenger, 2002; Thévenard-Puthod & Picard, 2013)—is related to the selection of network members in respect of their characteristics, experiences, and potential contributions. The revised Uppsala model highlights that the success of firms on international markets is strongly linked with their ability to embed themselves in key networks, to identify their most influential members, and to interact with the other members (Johanson & Vahlne, 2009; Meier & Meschi, 2010).

Social exchange theory and the network approach may be deemed complementary: The former is concerned with individuals’ interactions and behaviors in an exchange system; and the latter gives an understanding of the role played by networks in firms’ push into the international arena. The two theoretical currents show that information exchange and participation in networks are critically important when firms seek to expand into foreign markets. These two factors make it easier to identify and seize new business opportunities, and also to access new resources and competencies. This is particularly true of export firms, as networks enable them to reduce their exposure to the risks inherent in expanding into new markets. In the literature on export activities, the two perspectives have been drawn up separately. For example, Styles, Patterson and Ahmed (2008) draw on social exchange theory to study the performance of relations built between importers and exporters. Likewise, Kim and Hemmert (2016) use the network approach to explain the export performance of subcontractors in South Korea. They posit that this performance depends not on the firm’s financial resources but on its technological resources and the top managers’ skills, both managerial and networking-related. These managers are considered pivotal in their organizations, as the experience they have built up in large corporations enables them to activate existing networks. They manage to connect their SME with firms that are not members of their immediate networks, and thus to access preferentially a set of export information and opportunities. Following on from Styles, et al. (2008), Kim and Hemmert (2016) stress the importance of interpersonal variables in export-activity performance.

The two theoretical perspectives drawn on here also have limitations, as they emphasize exchange relations and do not take account of stakeholders’ inherent characteristics, which can also influence their interactions. The perspectives do not consider the historical context of the relations entered into—despite the role this can play in the development of these relations—and overlook the conflicts of interest liable to exist

between the associated stakeholders. Combining the two perspectives does not allow the adoption of a process approach to the interactions observed, with a view to studying the course of exchange relations over the long term. Business networks, however, are generally characterized by dynamics that are liable to change over time. Last, neither of the two models offers an operationalization of the constructs proposed.

SENSE OF BELONGING, SOCIALIZATION, AND INFORMATION EXCHANGE

We will first look at the factors likely to stimulate information exchange between export managers, and specifically at sense of belonging to a network and at socialization between members. These two elements are highlighted by social exchange theory and by the network approach. We will then seek to identify the antecedents of these three constructs.

A network is a social structure that facilitates interactions and relations with other individuals and organizations (Granovetter, 1985). Their creation results either from an emergent (unplanned) process or from an intended strategic construction (Mintzberg, 1994). In the former case, networks are based on high interdependence between members with common interests (BarNir & Smith, 2002; Granovetter, 1985). Geyskens, Steenkamp, Scheer and Kumar (1996) describe this type of network as “affective” insofar as it groups individuals motivated by a positive feeling of emotional attachment (Styles, et al., 2008). In the latter case, networks result from the will of a firm (or an individual) to gather a definite number of stakeholders for a limited time in order to achieve a precise goal (Thévenard-Puthod & Picard, 2013). In this case, these networks are described as “calculative” (Catanzaro, Messeghem & Sammut, 2012) as they gather stakeholders motivated by pursuing relations in view of the costs/benefits associated with their commitment within the network (Styles, et al., 2008). Consequently, the sense of belonging and the motivation to make a commitment and to maintain connections will vary according to the nature of the network. The sense of belonging to a network, which denotes attachment to the network and the importance lent to it, plays an important role in top managers’ socialization, as it encourages them to interact with the other members and to get to know them. Although socialization is a multidimensional concept that can be addressed using different scales of measurement (Perrot, 2009), it should be noted that we are addressing it here chiefly through the process of the members’ integration into the network. As Feldman (1976) suggests, socialization is the process by which people outside an organization or a network become active and efficient members of it.

This notion of belonging is all the more important in France, where people have great difficulty in placing trust in people outside their reference group, whether firm or family, given the intensity of ties between its members (Ellis, 2011; Zaheer & Kamal, 2010). French culture is marked by a strong relational orientation of trust, which can also be described as “affective” in the sense used by McAllister (1995). The close bond between individuals thus has a special meaning. One often finds allusions to common experiences such as the same body of knowledge, the same personal knowledge, the same training, or the same career path (Breuer & de Bartha, 1993; Mayrhofer, 2017). Success in cultivating this trust therefore depends heavily on the relationship between the people, with equal regard to the origins, intensity, and longevity of their ties, and to their aspirations. Drawing on the work of Dwyer, Schurr and Oh (1987) and of

Anderson and Weitz (1992), Styles, et al. (2008) point out that trust and commitment are the foundations of any social exchange.

Following on from Granovetter (1985), Ellis (2011) states that social networks may be strong (because highly emotional) once they are built between members of a family, or between individuals from one's personal circle; or, on the contrary, weak (because unaffectionate) when they are built between members of the same professional group or business partners, etc. Although trust plays a large role in both cases, it is noteworthy that what networks deliver differs according to the intensity of their members' ties. Ellis (2011) posits that "strong" social networks are mainly vectors of moral support but have low efficiency with regard to specific information or to business opportunities. This is in agreement with Oviatt and McDougall (2005) and with Poppo, Zhou and Zenger (2008), for whom weak ties are more efficient because they: (1) are less costly to develop and maintain; and (2) make it easier to acquire diverse knowledge. Conversely, "weak" social networks have the advantage of bringing together members of the same business community. They remain rather unemotional, but enable their members to share a set of strategic information (through experience-sharing), resources, and skills that facilitate the construction of a competitive advantage and, consequently, the success of operations abroad. Members are thus encouraged to work together over the long term with a view to maximizing their profits. This research focuses on this latter type of network. The development of the group members' sense of belonging enables participants to become integrated in it. The group is no longer exterior: It promotes trust and socialization between members. These developments allow us to formulate the following hypothesis:

H1: Sense of belonging to a network has a positive effect on (face-to-face) socialization between members.

Information exchange between top managers is often fostered by the prior socialization of the people or firms in question. When export managers know one another personally or when there are relations between the firms in question, information can be exchanged more easily insofar as trust-based ties—resulting from past experiences—already exist. These exchanges may be formal or informal (Lin & Lin, 2016). Unlike transactions under a classical contract, interpersonal factors such as top managers' personality, experience, and skills are central to relational contracts (Macneil, 1978) as these elements have a direct impact on the nature, quality, and frequency of the information exchanged. Sako (1992), cited by Styles, et al. (2008), stresses that top managers' skills—whether technical, managerial, or functional—and the reputation generated by recognition of them are a key trust builder in inter-firm relations. This is all the more important internationally given the difficulties inherent to physical and mental distance between members (Phan, Styles & Patterson, 2005). Trust inspired by top managers' skills makes it easier to create and mobilize business networks. Mobilizing constituted networks enables firms to access certain information that individuals outside the network would be unable (or struggle) to access. The information asymmetry thus created enables them to seize new development opportunities (Paché & Paraponaris, 2006; Zucchella & Scabini, 2007). We can therefore draw up the following hypothesis:

H2: Socialization between network members has a positive effect on export-information exchange.

Socialization between export managers is generally facilitated by a sense of belonging to the same network: the stronger this sense, the stronger the tendency for members to interact and meet (Sepulveda & Gabrielsson, 2013). Irrespective of whether the network is affective or calculatory, socialization should facilitate information exchange because, on the one hand, formal and informal meetings are all occasions to exchange information (Mendez, 2003); and, on the other hand, they help to strengthen trust between the network's members (Dyer & Singh, 1998; Granovetter, 1985; McAllister, 1995). Freeman, Hutchings, Lazaris and Zyngier (2010) state, for example, that strong ties promote the development of relations of mutual trust, encourage mutual help, and facilitate coordination of actions between members. Repeated interactions between stakeholders encourage them to share strategic information efficiently and freely (Levin & Cross, 2004), and even to cooperate on certain projects. In view of this, socialization should act as a variable that mediates between sense of belonging to a network and information exchange, hence the following hypothesis:

H3: Socialization acts as a variable that mediates the link between sense of belonging and export-information exchange.

Sense of belonging to a network and socialization appear to play a central role in information-sharing. It therefore seems interesting to analyze the antecedents of the three constructs we draw upon. Research on group dynamics reveals that sense of belonging to a group is all the stronger because selection at entry is strict and group members have similar characteristics and objectives (Forsyth, 2009). Three variables can be identified: selection, sectorization, and segregation.

Selection refers to the criteria used to select network members (Zain & Ng, 2006). Beckman, Haunschild and Phillips (2004) analyze the selection of partners in a network as a dual process of exploration and exploitation, intended primarily to reduce uncertainty and promote access to new information. According to these authors, a network's members can form ties with new members (exploration) or with existing relations (exploitation). The selection process is chiefly driven not only by the new member's potential input (resources and skills), but also (and above all) by the need to reduce uncertainty—be it internal, technical, or environmental (Beckman, et al., 2004; Haunschild, 1994; Podolny, 2001). The trust generated by organizations' reputation and skills thus potentially represents a driver in the selection process. As trust and commitment constitute the foundation of the sense of belonging, one may suppose that selection helps increase the sense of belonging to a network (cf. Hypothesis 4).

H4: Member selection has a positive effect on sense of belonging to a network.

Sectorization means that export managers take part in networks with other representatives of their business sector. As emphasized by Beckman, et al. (2004), firms develop their networks with a view to accessing new resources and skills. It seems reasonable to assume that sharing the same competitive world strengthens the sense of belonging to a network, for two main reasons: (1) It ensures that members meet only interlocutors with the same issues—and so experience- and resource-sharing is more relevant and specific; and (2) it ensures access to a body of information that is specific to their business sector, thus avoiding an

overabundance of general information of little use. In some types of network, sectorization could increase the sense of competition among members of the same business sector, and potentially harm the development of trust. This risk appears limited in the case of export networks, as firms do not share strategic or confidential information and do not necessarily target the same geographical markets. Sectorization should thus cause a (positive) development of trust in export-business networks. We may thus make the following hypothesis:

H5: Member sectorization (grouping by sector) has a positive effect on sense of belonging to a network.

Segregation pertains to export managers' degree of experience: Fledgling managers can thus be distinguished from more experienced ones. This distinction appears important insofar as export firms' organizational learning and international-development capability depend on their level of experience (Hultman, Katsikeas & Robson, 2011; Leonidou, Palihawadana & Theodosiou, 2011). One may suppose that segregation increases the sense of belonging to a network. The more experienced export managers are, the stronger their sense of belonging to the network. This is potentially explained by three factors: (1) experienced members' central position in the network (Lei & Chen, 2011); (2) the time and resources already invested; and (3) the benefits gained from forming and maintaining these networks (Geyskens, et al., 1996; Styles, et al., 2008). One can, however, point out that experienced export managers may have less need to belong to a network in order to socialize and to access information resources. In light of these factors, we make the following hypothesis:

H6: Member segregation (by level of international experience) has a positive effect on sense of belonging to a network.

Socialization between network members may be facilitated by the presence of a facilitator tasked with promoting interaction and informing them of each other's news. A facilitator may also organize physical encounters in order to develop socialization between members. In this respect, the facilitator fosters network development and consolidation by facilitating member interaction and experience-sharing (Sparrowe & Liden, 2005). Events orchestrated by the facilitator may focus on themes related to export activities (for example, potential of new markets, etc.); they are, as such, likely to develop trust between individuals and thus to strengthen the socialization process.

Research inspired by the interactionist approach to socialization (El Akremi, Nasr & Richebé, 2014; Reichers, 1987) highlights the line manager's key role in new employees' organizational socialization, disseminating key information, and providing support and feedback. Applying this rationale to export networks, we can say that the facilitator in a network plays the same role as the line manager in an organization: This person introduces new members to their peers, integrates them, and facilitates the spread of information by connecting individuals, etc. Accordingly, and although the facilitator's role can be viewed differently depending on the top managers and the networks studied, we can make the following hypothesis:

H7: The presence of a facilitator has a positive effect on socialization between network members.

Regarding information exchange, it is worth emphasizing the importance acquired by digital tools in interpersonal and inter-organizational exchanges. In the literature, there is consensual recognition of the driving and facilitating role of information and communication technology (ICT) in identifying and seizing business opportunities—especially abroad (Peña-Vinces, Cepeda-Carrión & Chin, 2012). Such tools can facilitate exchanges during periods between physical meetings of the network's members. They also promote informal exchanges between network members who are geographically distant. Their use can also enable information and knowledge-sharing on varied topics, and help answer questions asked by the network's members. Oviatt and McDougall (2005)—cited by Mozas-Moral, Moral-Pajares, Medina-Viruel and Bernal-Jurado (2016)—point out in this respect that export firms are today required to be proficient in ICT in order to consolidate the ties built with their international customers. As in innovation networks (Rowe & Te'eni, 2014), using a digital tool should promote information exchange between members of a network devoted to export activities. Some top managers could, however, be reluctant to share this type of information virtually, especially when it has strategic value (see Hypothesis 8):

H8: The use of a digital tool has a positive effect on export-information exchange between network members.

Work by Burt (1992) on the inputs of networks distinguishes two types of network, defined by density. So-called “dense” networks are characterized by extensive relations between members with homogeneous profiles—such as competitors. The information exchanged is mainly general and redundant, which reduces this type of network's efficiency and utility for export firms. Conversely, the least dense networks—comprising members who are influential but have no mutual ties—are vehicles for extensive knowledge and ideas because they are made up of members with heterogeneous and/or complementary profiles. This is a guarantee of trust for stakeholders and reduces the risk of ideas being appropriated by direct competitors (Coviello & Cox, 2006). Stakeholders are thus encouraged to interact and share varied information. Low-density business networks thus facilitate internationalization insofar as they enable their members to check the information collected and to access knowledge with high added value. In other words, the relations created in this type of network provide the firm with a more refined and complete understanding of its target market: identity and size of competitors, market structure, customers' expectations, etc. (Musteen, et al., 2014). It can thus be supposed that the presence of competitors has a negative effect on information exchange, as many firms operate in niche markets—of limited size—and prefer not to share strategic information with competitors (see Hypothesis 9):

H9: The presence of direct competitors has a negative effect on export-information exchange between network members.

Figure 1 illustrates our research model and summarizes the relations being studied.

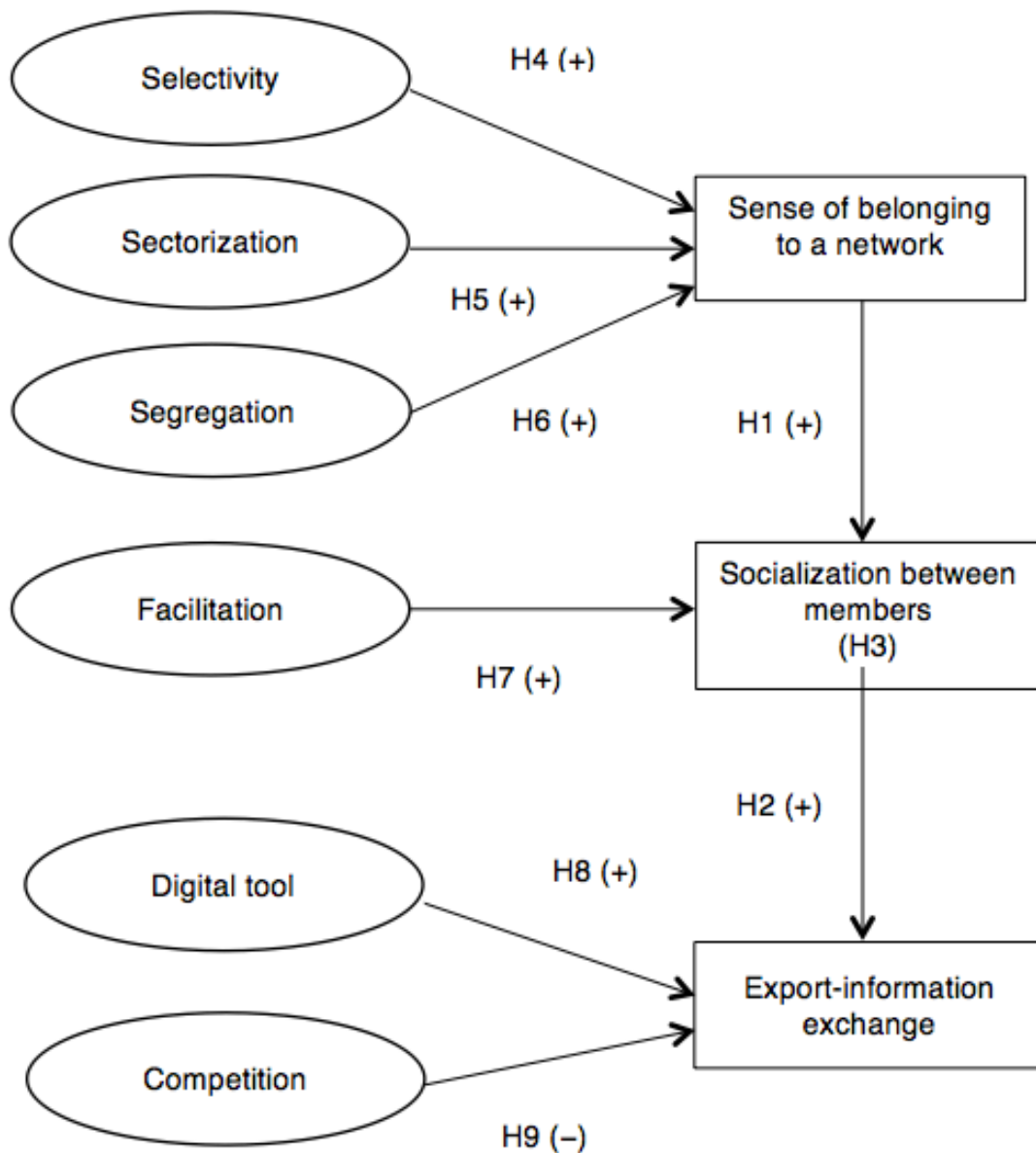


Figure 1 - Research model

PRESENTATION OF THE EMPIRICAL STUDY

To test the proposed research model, we conducted a survey of 317 French exporters. The collected data were analyzed using structural equation modeling. Below, we present our research methodology, then analyze and discuss the results.

RESEARCH METHODOLOGY

To test the hypothesis of the research model, it was necessary to have replies from firms that already belonged to a network. The survey respondents had to have experience of a network so as to be able to answer questions about information exchanges with other members of the network in question. Furthermore, firms had to be experienced exporters so that their top managers could both offer and receive export information. Organizations planning to develop export activities and first-time exporters were not selected, as they could bring nothing to the information exchange because of their inexperience. The information exchanged could be general in nature (potential of the target market, structure of distribution channels, etc.) and/or more specific (competition, pricing levels, consumer behaviors, etc.).

We used the database of a network of entrepreneurs who set up an informal network of 2,976 French firms with high development potential. We selected export firms ($n = 1300$), then drew a sample of 1,000 at random. These firms' managers, who are in charge of relations with the entrepreneur network, were contacted by email and directed to a dedicated website where they could answer the questionnaire. Some 317 respondents completed the questionnaire, a satisfactory response rate (31.7%) for a survey of exporters (Leonidou & Katsikeas 2010). 92% of respondents are top managers of firms. They devote more than 25% of their time to international activity, and 83% of them have more than five years' export experience. The firms belong to the manufacturing (55%) and service (45%) sectors, and represent 17 of the 21 business sectors listed by France's National Institute of Statistics and Economic Studies (INSEE). Most firms (86%) are SMEs with fewer than 250 employees. Exports contribute 43.5% of their turnover on average. One can note that the characteristics of the sample are similar to the characteristics of the studied population.

To operationalize the constructs, we used existing scales and also developed ad-hoc scales, given the specific nature of the study context. The items were derived from a qualitative study of 12 French top managers in charge of exports and belonging to various networks, and of five experts working in organizations that supply export information to firms and/or run exporter networks. Regarding the reflexive instruments, the items on the sense-of-belonging scale are partly derived from Richer and Vallerand's study (1998). The socialization scale was partly inspired by Butt (1973) and Gough (1960). These scales are often used in empirical studies on networks. The content validity of the instruments was verified by a mixed group of researchers and practitioners. The substantive validity of the reflective-scale indicators was verified using the test proposed by Anderson and Gerbing (1991), which consists of asking a group of respondents to evaluate each item and to assign it to a scale of the study. Indicators that were difficult to assign or caused confusion could thus be changed or eliminated. The items used in the study are shown in Table 1. To ensure respondent anonymity, the network to which the firms belong is referred to as "X."

Analyzed constructs and items	Average	Standard deviation
Sense of belonging		
1. For our firm, it is important to belong to a network such as X	3.96	1.01
2. We are proud to belong to X	4.22	0.92
3. It is very useful for us to be part of X	3.90	0.97
Socialization between members		
1. I would like to meet more colleagues who belong to X	3.71	0.91
2. There should be more occasions to get together with network-X members	3.96	0.95
3. I would be interested in being able to communicate with other network-X members	3.88	0.90
Export-information exchange		
1. I would like to communicate about exporting with network-X colleagues	3.65	1.00
2. Members of X could definitely exchange good advice about exporting	4.03	0.90
3. We would benefit from discussing exporting with network-X colleagues	3.94	0.84
Selectivity		
I appreciate the fact that members of X are selected: " <i>Not at all</i> " to " <i>Hugely</i> "	3.92	0.82
Sectorization		
Communicating with colleagues from other business sectors is of limited interest	2.51	1.08
Segregation		
In a group like our entrepreneur network, exchanges on international markets would be more interesting if all the firms were experienced exporters	3.00	1.11
Facilitation		
In X, the role of the facilitator is: " <i>Unimportant</i> " to " <i>Essential</i> "	4.00	0.97
Online tool		
It would be useful to have a web-based tool (forum, chat, etc.) to communicate more often with network-X colleagues	3.26	0.96
Competition		
In my exchanges with network-X members, the fact that I may come into contact with competitors bothers me: " <i>Not at all</i> " to " <i>Hugely</i> "	2.26	1.16
All items were measured with Likert scales from 1 (" <i>Completely disagree</i> ") to 5 (" <i>Completely agree</i> ") unless specified otherwise.		

Table 1 - Operationalization of the analyzed constructs

The normality of the measurement items was checked. We conducted a multi-collinearity test of the measuring instruments using SPSS. With variance inflation factors below 2 and condition indices between .7 and 1.5, any multi-collinearity between the variables of the model was ruled out. The basic model comprised three multi-item reflective scales. Confirmatory factor analysis showed that the psychometric properties complied with established standards (see Table 2). The indices of reliability (ρ_f) and of convergent validity (ρ_{vc}) were higher than the values set by Anderson and Gerbing (1988). The discriminant validity of the three scales was verified using chi-square tests. The chi differences ranged from 86.8 to 343.2 (≥ 3.82). The fit indices of the measurement model were higher than the standards set by Byrne (2001). The properties of the reflective scales are given in Table 2.

	Lambda
Sense of belonging pvc = 0.68 pf = 0.86	
1. For our firm, it is important to belong to a network such as X	.84
2. We are proud to belong to X	.81
3. It is very useful for us to be part of X	.82
Socialization between members pvc = 0.62 pf = 0.83	
1. I would like to meet more colleagues who belong to X	.75
2. There should be more occasions to get together with network-X members	.77
3. I would be interested in being able to communicate with other network-X members	.84
Import-information exchange pvc = 0.60 pf = 0.82	
1. I would like to communicate about exporting with network-X colleagues	.76
2. Members of X could definitely exchange good advice about exporting	.74
3. We would benefit from discussing exporting with network-X colleagues	.83
Fit indices of the measurement model: $\chi^2 = 57.3$, d.l. = 24, $p = .00$; GFI = .96; NFI = .96; TLI = .97; CFI = .98; RMSEA = .066	

Table 2 - Properties of the reflective scales

We then conducted an analysis by structural equations based on covariance (AMOS7) with an estimation by the method of maximum likelihood. We first compared the early respondents' answers with those of the later respondents, detecting no significant difference (Armstrong & Overton, 1977). This result indicated that non-response bias was unlikely to affect our study results. As our data came from a single respondent in each firm, we took a set of precautions to reduce method-induced variance. We warned respondents that there was no right or wrong answer, and that they should reply as sincerely as possible. The reflective-scale items were scattered in the questionnaire. Last, we varied the class boundaries of certain items. We evaluated the possibility of bias from method-induced variance using the technique recommended by Podsakoff and Organ (1986). The single-factor measurement model produced fit indices that were highly degraded relative to the multi-construct confirmatory factor analysis. We therefore concluded that our research was not affected by bias due to method-induced variance. Table 3 highlights the results of the various models analyzed to test the nine hypotheses in the conceptual model.

Model tested	Standardized coefficient	t
Analysis of mediation: direct model		
Sense of belonging => Socialization between members	.74	11.12
Sense of belonging => Export-information exchange	.56	8.46
R ² Information exchange = .32 Fit indices of the direct model: $\chi^2 = 189.4$, d.l. = 25, p = .00; GFI = .89; NFI = .88; TLI = .84; CFI = .89; RMSEA = .14		
Mediation analysis: model with mediator (H3)		
Sense of belonging => Socialization between members	.68	10.76
Sense of belonging => Export-information exchange	-.18	-2.25
Socialization between members => Export-information exchange	.97	10.38
R ² Information exchange = .73 Fit indices of the model with mediator: $\chi^2 = 57.3$, d.l. = 24, p = .00; GFI = .96; NFI = .96; TLI = .97; CFI = .98; RMSEA = .066		
Research model (H1, H2, and H4 to H9)		
Sense of belonging => socialization between members	.52	8.77
Socialization between members => export-information exchange	.78	12.29
Selection => sense of belonging (H4)	.55	9.97
Sectorization* => sense of belonging (H5)	.10	1.94
Segregation => sense of belonging (H6)	.04	.86
Facilitator => socialization between members (H7)	.32	6.20
Online tool => export-information exchange (H8)	.24	5.34
Competition => export-information exchange (H9)	.03	.65
R ² Information exchange: 0.71 Fit indices of the complete model: $\chi^2 = 223$, d.l. = 73, p = .00; GFI = .91; NFI = .90; TLI = .95; CFI = .92; RMSEA = .081		

Links are significant ($p \leq 0.05$) if $|t| \geq 1.96$; *non-significant results are in italics*.

*The sign of the coefficient was inverted to take into account the writing of the item.

Table 3 - Results of the structural models

The research model obtained fit indices that comply with Byrne's recommendations (2001). The results indicate that Hypotheses H1 and H2 are confirmed.

To verify the hypothesis of mediation of socialization between members (H3), we used the method recommended by Shrout and Bolger (2002), who adapted the recommendations of Baron and Kenny (1986) to analysis by structural equations. We first analyzed a direct model specifying links between sense of belonging and, respectively, socialization and information exchange. We then analyzed a model with mediator, which specifies the link between socialization and information exchange. We compared the fit indices and observed that the indices of the direct model were highly degraded relative to the model with mediator (see Table 3). A chi-square difference of 132.1 for a degree-of-freedom difference of 1 showed the superiority of the specification with mediator variable. Furthermore, the dependent variable, information exchange, is better

explained in the model with mediator ($R^2 = .73$) than in the direct model ($R^2 = .32$). Last, the coefficient of the link between sense of belonging and information exchange, which is positive and significant in the direct model (.56, 8.46), is negative in the model with mediation (-.18, -2.25). This reflects a suppressor effect (Shrout & Bolger, 2002). This extreme form of mediation occurs when the positive effects of one variable on another pass through the mediator variable and the remaining direct effects are negative. The impact of one variable on another is the outcome of its positive influence and its negative influence. When there is a suppression effect, these two contradictory influences are broken down into a positive indirect effect (via the mediator variable) and a negative direct effect. Hypothesis H3 is thus verified.

The other results of the research model show that Hypotheses H4, H7, and H8 are validated. Conversely, Hypotheses H5, H6, and H9 are rejected. The multiple correlations squared, comparable to the R-squared of a regression, show that this research model explains 71% of the “export-information exchange” dependent variable. Table 4 summarizes the results of the statistical analyses.

H1: Sense of belonging to a network has a positive effect on (face-to-face) socialization between members.	Confirmed
H2: Socialization between network members has a positive effect on export-information exchange.	Confirmed
H3: Socialization acts as a variable that mediates the link between sense of belonging and export-information exchange.	Confirmed
H4: Member selection has a positive effect on sense of belonging to a network.	Confirmed
H5: Member sectorization (grouping by sector) has a positive effect on sense of belonging to a network.	Rejected
H6: Member segregation (by level of international experience) has a positive effect on sense of belonging to a network.	Rejected
H7: The presence of a facilitator has a positive effect on socialization between network members.	Confirmed
H8: The use of a digital tool has a positive effect on export-information exchange between network members.	Confirmed
H9: The presence of direct competitors has a negative effect on export-information exchange between network members.	Rejected

Table 4 - Results of empirical study

ANALYSIS AND DISCUSSION OF THE RESULTS

We will first present the results regarding the links between sense of belonging, socialization, and export-information exchange, and then discuss those regarding the antecedents of the three analyzed constructs.

The statistical analyses performed (see Table 3) show that the relations between the three studied factors are significant. Hypothesis 1, according to which sense of belonging to a network exercises a positive effect on (face-to-face) socialization between members is thus validated. This result confirms that belonging to a community fosters interactions between export managers. As with Oviatt and McDougall (2005), Poppo, et al. (2008), and Ellis (2011), our findings show that weak ties are particularly efficient in the context of information-sharing between export experts.

Whereas strong ties provide moral support, they have little relevance to accessing specific information that enables managers to deepen their knowledge of exporting and/or of accessing new business opportunities abroad.

Hypothesis 2, whereby socialization between a network's members has a positive influence on export-information exchange, was also verified. This result shows that personal relations between top managers facilitate the exchange of specific information on export activities. The trust generated by repeated interactions between members encourages them to become more involved in the life of the network and to share specific information—whether technical or on target markets. These results confirm and enrich previous research by showing that the frequency of interactions between members has an impact on trust inside the network—and thus on the free movement of specific information within it. As with Levin and Cross (2004), and Freeman, et al. (2010), our results confirm that frequent and repeated interactions facilitate the transfer and integration of knowledge in the network.

Our analyses also reveal that (face-to-face) socialization acts as a variable that mediates the relation between the sense of belonging and export-information exchange, thus confirming Hypothesis 3. They also highlight the importance of socialization, which is promoted by the sense of belonging to the same network and which has a significant impact on export-information exchange. Our analyses also indicate that the residual effect of the sense of belonging on information exchange is negative (suppressor effect). In other words: the greater the socialization, the greater the quality and/or quantity of information exchanged between members.

Statistical analyses measuring the incidence of the antecedents identified on the three factors studied allow their role in export-information exchange to be determined. Regarding the antecedents of the sense of belonging to a network, it can be observed that the selection of members has a positive and significant influence on this sense, thus confirming Hypothesis 4. Several factors may explain this result. Firstly, the selection process is akin to a network entry fee: The only firms given access to the network are those likely to contribute to its development and long life. This process also reduces the uncertainty arising from the entry of little-known members, by ensuring that new entrants share the values governing the life of the network (and thus limiting the risk related to the new entrant's opportunism). It can also enable members with a central position (in the network) to strengthen their power by controlling access to the network—and even by authorizing access only to firms with a profile similar to their own (principle of isomorphism). These results partly confirm the work of Beckman, et al. (2004) insofar as they show that sharing specific information within the network is like a process of exploitation only, because the process operates largely between firms that are already members (and only to a small extent with new members).

However, the impact of the “sectorization” and “segregation” variables was not confirmed. Hypotheses 5 and 6 are thus rejected. Unlike Hypothesis 5, the sectorization of members does not strengthen the sense of belonging to a network. Likewise, the segregation of members by level of international experience does not significantly increase the sense of belonging to a network. Several conclusions can be drawn from these results. Network homogeneity, caused by a sectorization policy, does not encourage stakeholders to exchange more information, for two main reasons: (1) It reduces information-sharing, and limits access to new knowledge and ideas (because it does not allow access to members from

other business sectors and/or with diverse experiences); and (2) it tends to intensify competition between members. Our results thus show that sectorization has a potentially harmful effect on information-sharing, and, on a larger scale, on the network's dynamics and long-term future.

The statistical tests conducted also reveal that socialization between members is highly influenced by the presence of a facilitator tasked with supplying news, promoting interaction, and holding physical meetings. Hypothesis 7 is therefore corroborated. Following on from Burt (1992), we can state that the facilitator lubricates exchange between members of low-density networks. Through his neutrality and role in promoting exchange, the facilitator helps increase the network's efficiency. These results demonstrate the utility of combining social and network approaches insofar as the facilitator acts as a trustworthy third party who lubricates social interaction within the network.

Last, with regard to the antecedents of export-information exchange, our results confirm Hypothesis 8, i.e. using a digital tool favors export-information exchange between the network's members. Like the facilitator, ICT lubricates information-sharing between members and thus tends to increase the frequency of interactions at a lower cost. This is all the more important in an international context, given the uncertainty arising from the physical and mental distance between members. In other words, digital tools favor export-information-sharing between a network's members. Continuing the work of Oviatt and McDougall (2005) and of Mozas-Moral, et al. (2016), our results show that digital tools help to consolidate the ties formed with the members of an export network. Conversely, Hypothesis 9 —i.e. that the presence of direct competitors has a negative impact on export-information exchange between a network's members—is disproved. This result indicates that export managers do not appear opposed to the idea of exchanging information with their competitors.

Structural equation modeling allowed partial validation of the proposed research model. Several tested hypotheses could be verified. Our results show in particular that sense of belonging to a network and socialization between its members have a positive influence on information exchange between export managers. They also reveal that socialization acts as a variable that mediates the link between sense of belonging and information exchange. Three identified antecedents have a significant impact on the three analyzed constructs: network selectivity, presence of a facilitator, and use of an IT tool. Conversely, sectorization, segregation, and the presence of direct competitors do not exert significant influence on the studied factors. Our research shows the utility of drawing upon relational contract theory and on the network approach to study information exchange within export-firm networks. Our work enriches these two theoretical strands by empirically testing the identified variables and highlighting their respective roles in information exchange within export-firm networks.

CONCLUSION

Creating and running business networks is a complex and multifaceted phenomenon, relying on the interaction of individuals and/or organizations carefully selected for their characteristics, motivations, and potential contributions. As vehicles of information, resources, and skills, networks today have key importance—particularly for export development—insofar as they give their members preferential access to new opportunities. Information exchange between export managers may considerably facilitate the internationalization process. Export firms often face a lack of international experience and/or knowledge of foreign markets (Mogos Descôtes & Walliser, 2013). Participation in a network thus enables them to seize new business opportunities and to adapt to changes in their geographical markets (Child & Hsieh, 2014).

The purpose of this research was to identify the antecedents of export-information exchange between top managers in the same network. Our investigations, based on a survey of 317 French exporters, show that sense of belonging to a network and socialization between its members influence information exchange between export managers. They also reveal that socialization acts as a variable that mediates the link between sense of belonging and information exchange. They also make it possible to identify the antecedents of the three analyzed constructs: network selectivity, presence of a facilitator, and use of an IT tool. These three variables consequently help to foster information exchange between export firms in the same network.

Our work breaks new ground in the literature, which shows that belonging to networks makes it easier to access information on export activities (Souchon, et al., 2015; Theodosiou & Katsikea, 2013). Although these studies highlight the positive role exercised by networks, they do not identify the factors that facilitate information exchange inside networks. Theoretically speaking, combining social exchange theory with the network approach made it possible to build a research model that explains the links between the sense of belonging to a network, socialization between its members, and information exchange between export managers, as well as their antecedents. Methodologically speaking, our research helps enrich the operationalization of the constructs we drew on, in particular through the construction of ad-hoc scales that we were able to develop by conducting a qualitative study among export managers and experts specializing in international business support. And empirically speaking, our survey improves knowledge of the expectations and behaviors of French exporters regarding information exchange in the networks in which they take part.

The results of our research have considerable theoretical and managerial implications, especially for managing networks of business people who are seeking to expand internationally.

First, the positive effect exercised by the sense of belonging to a network on socialization between members is coherent with the French context, where trust, which is primarily relational in nature, is granted as a priority to reference groups (Mayrhofer, 2017). This result is also in agreement with Zaheer and Kamal (2010) and attests that developing members' sense of belonging to a network facilitates trust-based relations and face-to-face interactions between the top managers in question.

Second, the positive influence of socialization between a network's members on export-information exchange highlights the importance of professional networks when firms enter international markets (Johanson & Vahlne, 2009). The sharing of specific information thus helps to develop

new expansion opportunities (Paché & Paraponaris, 2006; Zucchella & Scabini, 2007).

Third, the fact that socialization acts as a variable that mediates the link between a sense of belonging and export-information exchange shows that the positive effect of the sense of belonging to a community on export-information exchange depends on the socialization of its members. Our results also show that the absence of socialization has a suppressor effect on information-sharing. In other words, the absence of socialization prompts members to not share information, and even to hold it back. This result is particularly interesting, as the effect of suppressing the sense of belonging on information-sharing export is not described in the literature.

Our research, which highlighted the specific workings of networks and the clear importance of socialization in their performance and lifespan, prompts us to propose the concept of “network socialization,” based on that of “organizational socialization” proposed by Perrot (2009). Unlike with relations built within organizations, members of business networks are free to choose whether they interact with their peers. The network can thus exist only if the individuals find a specific interest (other than financial) in interacting. The network-socialization approach refers to the various measures taken by a network’s members to incorporate new stakeholders. The success of network socialization will thus ensure the network’s performance and long life.

Fourth, our research identifies the antecedents of the sense of belonging to a network. The positive effect of member selection on the sense of belonging to a network emphasizes the necessity of selecting a network’s members to develop a sense of belonging (Forsyth, 2009). It is thus important for a network’s members to have common characteristics and similar objectives (Huggins, 2010). The sharing of specific information will chiefly occur only between stakeholders of the same level, owing to fears related to opportunism and to the limited contributions of organizations pursuing different objectives. However, our results reveal that the top managers surveyed do not display a stronger sense of belonging to networks that comprise stakeholders from the same business sector or that have the same level of international experience, at least in the export space. This is explained partly by the need for business activities to be complementary in a context of limited resources. Top managers are thus aware of the many opportunities liable to arise from developing and maintaining relations with firms from other business sectors. Likewise, the export managers surveyed do not prefer networks of export managers with the same level of international experience.

Fifth, our statistical analyses confirm that the presence of a facilitator stimulates interactions and regular meetings between a network’s members. However, our research does not pinpoint how the type of facilitator (from an institution or a business) influences the degree of member socialization, and the degree of network activity.

Sixth, our research shows that using information systems promotes information-sharing between export managers, who are often geographically scattered. This is coherent with the investigations conducted by Amabile and Gadille (2006) and then by Tran (2012), who stress that firms with an international presence make greater use of digital tools than do their domestic counterparts, as information systems make it easier to coordinate international activities and information-sharing between geographically scattered entities (or stakeholders).

Last, our results suggest that export managers are ready to exchange information with their competitors. This finding is at odds with the existence

of export groups that comprise firms from the same business sector and that aim to reduce the costs and risks of international development.

Our work also makes it possible to set out recommendations for the public authorities, which endeavor to set up and develop networks to support firms' international expansion. This study of how export networks operate highlights the need for socialization of its members. Export information is shared within the network only when top managers can interact face-to-face. Although digital tools facilitate exchanges, they are not a sufficient condition for sharing export information: It is shared only when members have opportunities to meet. To facilitate information exchange within networks of business people, it is thus necessary to arrange events where top managers can be introduced and build ties. Also noteworthy is the key role played by the facilitator in connecting people and in the network's dynamics. For the members of the export network studied, the facilitator apparently plays an essential role in members' socialization and in the network's operation. Public authorities that run business networks must therefore carry out actions to facilitate physical meetings between members, and appoint facilitators to manage and develop the networks formed.

The results obtained from the investigations conducted among a network of export firms may also be of interest for other types of network in which information exchange plays a central role. These may be inter- or intra-organizational networks.

Inter-organizational networks may be innovation networks with diverse stakeholders (private- and public-sector laboratories, firms, customers, suppliers, financial organizations, etc.) jointly involved in developing and distributing an innovation. For these associates, the objective is to access complementary assets in order to successfully execute their project (Loilier & Tellier, 2013; Rowe & Te'eni, 2014). This is also true of clusters—groups of firms and institutions in a specific business sector in a geographic area (Leroux & Berro, 2010). In these two types of network, exchange relations may take varied forms, somewhere in a continuum between a classical contract and a relational contract, to borrow Macneil's terms (1978, 1980). In a context of globalization, the international dimension is often also strongly present in this type of network. One may thus wonder whether the relations found between the constructs drawn on in our research (sense of belonging, socialization, and information exchange) and their antecedents may also be verified in these contexts, which are often characterized by more formal relations and greater closeness between stakeholders. For example, the work of Suire and Vicente (2015) highlights the institutional facilitator's role in the life and efficiency of clusters.

As for intra-organizational networks, we can cite the example of communities of practice, which are tending to develop, especially in multinational corporations whose value chains are often scattered worldwide. A community of practice is a group of people who have in common an area of expertise, a set of problems, or a passion for a theme, and who seek to deepen their knowledge through regular interaction (Wenger, 1998). It is a social structure that enables knowledge development (Wenger, McDermott & Snyder, 2002). As information-sharing is essential, one may indeed wonder whether the relations observed between the sense of belonging, socialization, and information exchange and their antecedents are similar in this type of network. It would be interesting to study whether, in this specific framework, the three antecedents identified (network selectivity, presence of a facilitator, and use of an IT tool) have the same effect on the constructs drawn on (sense

of belonging, socialization, and information exchange) as in our research. One may wonder whether socialization between members is also a variable that mediates between sense of belonging and information exchange; and whether the suppressor effect can also be verified in a context where most stakeholders belong to the same organization.

Our research has several limitations and perspectives that are worth setting out. Our survey was based on responses about a specific network. We were able to question only one respondent per firm. Although respondents and their firms likely also belong to other networks, their answers are clearly influenced by their perceptions of this network. It therefore seems desirable to question members of several networks in order to obtain more generally applicable results. With this in mind, it would be relevant to pinpoint the level of analysis by distinguishing the individual level (network of top managers) from the organizational level (network of firms). In addition, it would be interesting to compare the choices of French firms in respect of export-information-sharing with those made by their counterparts in other countries. Likewise, it will be necessary to extend the work already done, focusing on the facilitator's characteristics in order to determine the similarities and differences between institutional and professional stakeholders. It appears judicious to study how practices evolve over a longer period, in order to identify any changes in the choices made by the firms being observed. And it would be particularly interesting to study the role played by various networks in collecting and sharing information at each stage in the international-development process. The present study covered experienced exporters, but it would be advisable to expand its scope to firms that plan to develop their export activities and to first-time exporters, in order to test the research model on other categories of firm. Last, it appears desirable to analyze the effects of information exchange on the dynamics of internationalization; and, ultimately, on the performance of the firms studied.

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