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Sylvia Mercedes Novillo Villegas,
Hans–Dietrich Haasis

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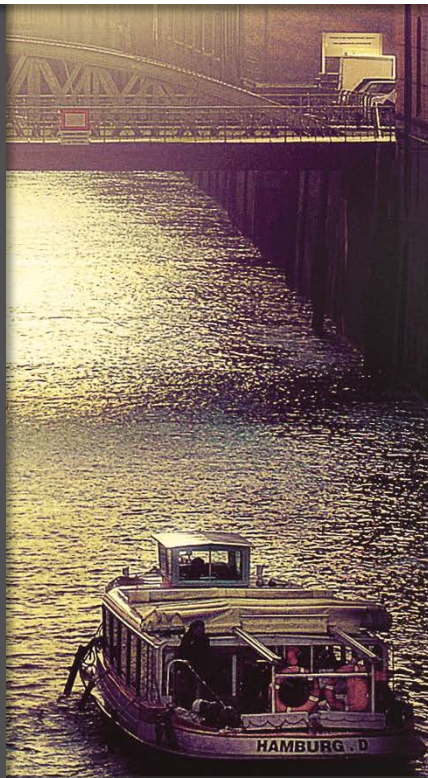

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Supply Chain Flexibility and SMEs Internationalization. A Conceptual Framework

Sylvia Mercedes Novillo Villegas[1], Hans–Dietrich Haasis[1]

1 – University of Bremen

This paper has the aim of analyzing the relationship of logistics capabilities and supply chain flexibility (SCF) as part of small and medium-sized enterprises (SMEs) internationalization strategy through a review of relevant research in these areas. This review will constitute the foundation for developing an integrative conceptual framework to understand the relationship. An integrative literature review in internationalization approaches, SCF and logistics capabilities from 2006 through 2016 was conducted. The analysis of an extract from this literature review is presented to identify the key elements that contribute to the SMEs' flexibility as a strategy to achieve their internationalization goals. The role that logistics capabilities play in achieving SCF as part of SMEs internationalization strategies has not been analyzed in literature from an integrative conceptual perspective. Further, the areas of research were conducted mostly in large firms from developed markets. A multi-disciplinary approach is used in this research to address this gap. As such, this paper is the first on analyzing the relationship between the areas of interest. This constitutes the initial phase of building a theory on the relationship between SMEs internationalization, SCF, and logistics capabilities. Further research will be necessary to empirically test the conceptualized relationships in both developed and emerging markets. This paper also presents managerial implications. The relationships between the presented areas contribute to a better understanding of the influence of logistic capabilities regarding SMEs flexibility in a supply chain context. This will lead to improving the SMEs' innovation and logistics management while designing internationalization strategies.

Keywords: maritime security; illicit trade; detection architecture; discrete event simulation

1 Introduction

Internationalization is a high-risk strategy that any firm can undertake due to the complexity and uncertainty of international environments. Nevertheless not embracing this strategy connotes to the firms a major disadvantage in relation to their competitors who have an international orientation (Leonidou, 2004). Furthermore, internationalized companies have shown a better capacity to innovate and adapt to the fluctuations of the demand (Johanson and Vahlne, 2009). In addition, the business scenario has switched from firms competing as independent entities to a supply chain competing scenario (Christopher, 2000). Small and medium-sized enterprises (SMEs) cope with many limitations due to poor capabilities (e.g. innovativeness) and lack of resources (e.g. production capacity) though they are recognized for being flexible, which can lead to a faster response and to have closer relationships with customers and suppliers (Singh, Garg and Deshmukh, 2008; Ismail, Poolton and Sharifi, 2011). Singh, Garg and Deshmukh (2008) argued that it is necessary to assume a holistic approach in order to sustain SMEs competitiveness, as the firms must assess their resources, procedures, and performance regarding the referents in the industry.

In a dynamic business environment, with the aim of developing a competitive advantage, companies have to synchronize their strategies, resources, capabilities, and operations, with suppliers to respond positively to customers' demand and consequently together achieve higher levels of flexibility beyond individual firms (Gligor, 2014). Hence, firms adopting supply chain flexibility (SCF) strategies will have an edge over their competitors (Singh and Acharya, 2013). Moreover, in a supply chain scenario, companies have to unify, integrate and synchronize their own logistics capabilities within their network partners in order to compete with firms outside their supply chain (Gligor, 2014). Gligor and Holcomb (2012) argued that supply chain agility is prompted by joining together logistics capabilities at a network level. Mentzer, Soonhong and Bobbitt (2004) grounded the statement that an integral element of the management of the supply chain is logistics; therefore logistics capabilities constitute a key element for developing supply chain broad capabilities. Further, from an empirical study, Mandal (2016) found that logistics capabilities impact positively on SFC which in return affects positively the performance of the supply chain.

There is an extensive body of literature regarding the influence of logistics capabilities in achieving sustainable competitive advantage regarding a supply chain context (Mentzer, Soonhong and Bobbitt, 2004; Stank, Davis and Fugate, 2005;

Esper, Fugate and Davis-Sramek, 2007; Gligor and Holcomb, 2012; Gligor, 2014; Mandal, 2016). With respect to the research conducted about SMEs on these fields, Gelinas and Bigras (2004) examined the features and characteristics of SMEs in order to recognize their impact on the integration of logistics. They found that in some aspects, SMEs appeared ”dynamically suited to integration”. The flexibility of the SME, the growth of the entrepreneur and its sustainability goals, the simplified decision-making processes, the closeness of operational and organizational levels were categorized as well-suited with integrated logistics. By contrast, the authors categorized as unfavorable the “firms' focus on effectiveness rather than efficiency, their tendency to underutilize information technologies, and their short-term strategic planning” (p.276). In addition, previous research on these three areas of interest was conducted mostly in large firms from developed markets (Gelinas and Bigras, 2004; Verdú-Jover, Lloréns-Montes and García-Morales, 2006; Mellat-Parast and Spillan, 2014; Felzensztein et al., 2015; Zhang et al., 2014).

In the regard of SMEs internationalization, the role of logistics capabilities in achieving SCF as a competitive advantage has not been analyzed in the research. This gap highlights the necessity of an integrative conceptual frame with the aim to understand the relationship. Thus, it is necessary the development of an integrative framework to unify the areas under study. This paper presents the initial stage of developing an integrative conceptual framework through an integrative literature review.

2 Methodology

An integrative literature review was conducted to establish a comprehensive outlook to define the relationship of logistics capabilities in gaining SCF when designing internationalization strategies for SMEs.

The first section introduced the motivation for this work, the areas of interest (i.e. SMEs' internationalization approaches, SCF and logistics capabilities) which have led to the problem formulation. The review of literature related to the areas of interest from 2006 through 2016 was conducted. Section 3 presents a quick summary of the literature reviewed in internationalization theories (to better understand the drivers and factors that influence SMEs internationalization); SCF (to establish the characteristics and elements of SCF as a competitive strategy); and logistics capabilities (to provide the elements that influence SCF and SMEs

internationalization). In section 4, the literature review is analyzed and interpreted to integrate a conceptual framework. The last section includes the theoretical conclusions and managerial implications.

3 Literature Review

3.1 SMEs Internationalization

Leonidou (2004, p. 281) defined firms' expansion as "the firms' ability to initiate, to develop, or to sustain business operations in overseas markets". Three approaches of internationalization (i.e. stage approach, network approach and entrepreneur approach) are presented to formulate an integrative framework regarding the phenomenon of SMEs internationalization.

3.1.1 Stage Approach

To the authors of this approach, firms' internationalization is considered as an "evolutionary process" where firms gradually increment their involvement in international markets going from one stage of internationalization to the next (Cavusgil, 1984, p.196). Firms should select the optimal entry mode to foreign markets by evaluating their risks, market constraints, and their own resources. This approach has two main subdivisions: the innovation-related internationalization model (I-model) (Bilkey and Tesar, 1977; Cavusgil, 1980) and the Uppsala model (Johanson and Vahlne, 1977).

The innovation-related internationalization model (I-model) compares the process of firms' internationalization with the stages of adoption for a new product. Under this approach, each internationalization stage is studied as an innovation stage for the firm. On the other hand, Johanson and Vahlne (1977) developed an internationalization model, known as the Uppsala model, regarding the learning curve of a firm. This model is grounded on two main components: the market knowledge (including operations and markets overseas), and the market commitment, i.e. the number of committed resources to foreign markets.

Firm's current activities and experience of operations in foreign markets contribute to structure its market knowledge. The gained knowledge influences the level of commitment with the foreign market according to the decisions made

and the subsequent activities that result from those decisions as well as the number of committed resources. Johanson and Vahlne (1977, p.23) characterized the approach as dynamic since internationalization “is the product of a series of incremental decisions” which lead from one level of commitment to the next stimulating more learning.

This model also introduced the notion of ”psychic distance” defined as “the sum of factors preventing the flow of information from and to the market” (Johanson and Vahlne, 1977, p.24). Culture and language dissimilarities, the degree of development in the industry, among others factors affect the way to receive and transfer information in foreign markets. Thus the diminution of the psychic distance through an integrated flow of information might enhance the firm’ access to more geographically distant targeted markets.

3.1.2 Network Approach

Johanson and Vahlne (1990) introduced a business network approach. The authors stated that firm’s internationalization is affected by the business relationships in the networks of foreign markets. The argument is that the existing network relationships affect firm’s decision to access a specific market and the choice of the entry mode. Further, Johanson and Vahlne (2009) analyzed the drivers and the modes of internationalization by mobilizing internal and inter- organizational relations. They included the “recognition of opportunities” as part of the market knowledge, due to the importance of this capability as it prompts the internationalization process. This capability is developed by creating financial, market and technological links with other network partners and increases progressively its operations from local markets to foreign markets. The authors set the second state variable, “network position”, due to their assumption that firm’s internationalization process is determined by the position and partnership of the firm within a network. Relationships depend on particular levels of knowledge, trust, and commitment which vary from one partner to another.

For future references in this work, the supply chain will be the network scenario of analysis (Stevenson and Spring, 2007).

3.1.3 International Entrepreneurship

The international entrepreneurship approach emerged from entrepreneurship literature when it comes to understanding entrepreneurial processes to explain the internationalization of a firm (Freiling and Schelhowe, 2014). An international entrepreneur is the result of the combination of a proactive, innovative, and risk-taking behavior which leads to cross national borders by creating value in the firm to establish business operations in foreign markets (McDougall and Oviatt, 2000). Therefore, three key elements are identified in this approach: innovativeness, proactiveness and risk-taking (Oviatt and McDougall, 2005). The proactive behavior of firms leads them to take risky measures to overcome psychic distance through innovating their products, production processes, marketing processes, sales and service support with the aim of satisfying the requirements of a multicultural customer base. Innovativeness is firm's capability to "promote new and creative ideas, products, and processes designed to service the market" (Felzensztein et al., 2015, p.149). This implies that the more diverse are the target markets, the more innovative the firm might need to be in order to develop successful strategies for those markets. Proactiveness refers to the firm's ability to acquire, use, and exchange market knowledge in a way that firm is able to commit resource in a marketplace. Internationalization demands a higher level of resources (i.e. production, financial, human) and capabilities that might be acquired through the market knowledge and proactive behavior. Thus, the firm is stimulated to undertake risky decisions. They also need the capability to learn from their competitors and their international network in order to identify opportunities, make more risky decisions and work better with customers (Freiling and Schelhowe, 2014).

3.2 Supply Chain Flexibility (SFC)

3.2.1 Defining the Concept

The actual business environment is highly dynamic and competitive as a result of the introduction of new technologies and the sophistication of customers' demand, who require customized product in shorter lead times. Therefore, firms have to deal with more complex scenarios filled with uncertainties and turbulences (Stevenson and Spring, 2007). Considering these circumstances, flexibility emerges as a strategic capability to effectively adapt to dynamic environments.

Flexibility is the capacity to shift or adapt with slight punishment in terms of performance, cost, time or effort (Upton, 1994). Furthermore, for achieving the flexibility required to add value to the customers, suppliers and distribution channels as well as to the organization, the firm has to act beyond its internal domain (Martínez Sánchez and Pérez Pérez, 2005; Kumar et al., 2006).

The study of SFC has its roots in the literature in manufacturing flexibility and arose in the decades of 1980 and 1990 (Slack, 1983; Sethi and Sethi, 1990; Koste and Mal-hotra, 1999). Early studies demonstrated that flexibility impacts positively on the performance of the firm. The literature on manufacturing flexibility focuses mainly on the physical resources and the internal performance of a firm thus is not sufficient to the complexity and dynamics of supply chains in which firms are embedded (Lummus, Duclos and Vokurka, 2003). Moreover, supply chain operates as a complex system, where the performance of every part involved affects the entire system performance. Consequently, the flexibility of each network partner and their interrelationship result in the flexibility of the entire supply chain (Duclos, Vokurka and Lummus, 2003).

Authors and practitioners have different perceptions about the concept of flexibility. Lee (2004) explained the flexible capability of a firm through three different elements, i.e. adaptability, alignment, and agility. Supply chain adaptability is the capability to set the network design to meet structural changes upstream or downstream, adjust the strategies of the supply network, and design products and services. Alignment is the capability to generate incentives between the participants within the network for a better overall performance. Agility is the capacity to act quickly to short-term fluctuations upstream or downstream and manage external disturbances smoothly.

Stevenson and Spring (2007) stated that SCF is the ability to generate a quick response to different disruptions in demand and supply along with modifications in other environmental parameters e.g. capacity limits, lead-time, and exchange rate. Kumar et al. (2006, p.305) defined SCF as "the ability of supply chain partners to restructure their operations, align their strategies, and share the responsibility to respond rapidly to customers' demand at each link of the chain, to produce a variety of products in the quantities, costs, and qualities that customers expect, while still maintaining high performance".

Lummus, Duclos and Vokurka (2003) identified the components of SCF (i.e. operations systems, supply network, logistics processes, information systems, and organizational design) and also the potential features of these components that produce flexibility in the supply chain. Further, the authors introduced a supply

chain model regarding the identified components which might lead to customer satisfaction when working effectively in a coordinated and collaborative manner. In addition, Kumar et al. (2006) introduced an integrative framework for the implementation and management of SCF. The framework includes three stages, i.e. required flexibility identification procedure; implementing and sharing responsibilities; and feedback and monitoring.

Stevenson and Spring (2007) highlighted some characteristics of flexibility. They argued that this capability is always present in some degree. Moreover, it is also a multi-dimensional and complex concept, which is difficult to measure, challenging to gain and hard to imitate. The authors developed a hierarchical taxonomy of SCF based on the different components of manufacturing flexibility. Moreover, some dimensions of flexibility influence others, e.g. supply chain design flexibility is influenced by sourcing flexibility (Gosling, Purvis and Naim, 2010).

3.2.2 Drivers and Analysis

It is important to understand the drivers of SCF to establish the role of logistics capabilities in accomplishing SCF strategies as a sustainable competitive advantage for SMEs internationalization. Flexibility drivers are situation or factors that fashion the need for flexibility. At the same time, each driver is associated with some kind of uncertainty, e.g. external downstream driver for SFC is the customer who is responsible for demand uncertainty and likewise external upstream driver is the supplier, who is responsible for sourcing uncertainty that may drive the focal firm to maintain a pool of suppliers (Tiwari, Tiwari and Samuel, 2015). Kumar, Shankar and Yadav (2008) established mutual relationships and interactions among the flexibility enablers through the development of an interpretive structure model. A supply chain, characterized by important levels of process and information integration, collaborative relationships, and responsiveness flexibility, will be able to respond to the different sources of uncertainty (Gligor and Holcomb, 2012). The impact that integration generates in achieving SCF is a fundamental theme in the research. The integrated flexible supply chain constitutes a competitive strategy to develop a domestic and overseas leadership in a dynamic environment of fluctuating customer demands (Kumar, Shankar and Yadav, 2008).

3.3 Logistics Capabilities

Logistics capabilities are used to align, combine, adapt, and reorganize functional competences, resources and structural skills to improve the overall performance (Gligor and Holcomb, 2012). Capabilities are the combination of dynamic routines and procedures which show how the resources are structured, applied and synchronized with the environment (Stank, Davis and Fugate, 2005) in order "to achieve superior performance and sustained competitive advantage over competitors" (Morash, Droge and Vickery; 1996, p.1). They also constitute complex sets of knowledge and skills, which determine the firm's capacity of general ability and efficiency. Moreover, studies have demonstrated that logistics capabilities constitute a competitive advantage to the firm. Though the concepts of supply chain management and logistics are related, there are individual differences. Logistics is in charge of planning, executing, and monitoring the effective and efficient flow and storing of resources, information, and services associated with the processes of the supply chain from the sourcing place to the consumption place with the aim of fulfilling customer demands (Mentzer et al., 2001). In contrast, supply chain management is the set of related activities and resources of each supply chain partner which might be considered as logistics systems integrated into a network. The success of a supply chain depends on a high degree of the capabilities of individual logistics systems, particularly for quality- and time-based competition (Duclos, Vokurka and Lummus, 2003).

Mentzer, Soonhong and Bobbitt (2004) studied the strategic relationship of logistics and its capabilities within the frame of firm theories. The authors presented a "unified theory of logistics", that includes the conceptualization of logistics capabilities which result in a competitive advantage. These logistics capabilities are categorized into four broad groups, i.e. logistics quality and customer service (capabilities of demand-management interface); low supply and distribution cost (capabilities of supply-management interface); information technology and information sharing (information-management capabilities); and interior and exterior coordination capabilities.

Esper, Fugate and Davis-Sramek (2007) studied how firms develop and acquire their logistics capabilities and the way they are used to gain a sustainable competitive advantage. The authors highlighted that the literature referred to the logistics capabilities mainly included integration capabilities, demand management capabilities, supply management capabilities, measurement capabilities (the degree to which firms monitor internal and external processes and the achievement of

strategies), and information exchange capabilities. Three fundamental aspects are included into the classification of logistics capabilities, i.e. effectiveness, efficiency, and differentiation. Effectiveness is the result of collaborative efforts through integration capabilities. Supply-management capabilities stimulate the firm to undertake efficiency while demand-management capabilities enable differentiation strategies. Information exchange is a requirement to accomplish the expected internal and external results that have to be measured (Gligor and Holcomb, 2012).

4 Analysis and Integration of the Concepts

It is necessary the understanding of the relationship between the drivers of flexibility, logistics capabilities as a source of flexibility and SCF for developing the present conceptual framework. It will provide the indispensable elements to analyze the role of logistics capabilities in accomplishing SCF strategies for SMEs' internationalization. A synthesis of the literature regarding the relationship between these three areas is presented in figure 1.

Logistics creates advantages such as the customer value enhancement, the productivity assessment, and functional effectiveness. One of the unique attributes of logistics is the active coordination with inside- and outside- functions of the firm. Therefore logistics capabilities have two dimensions, i.e. internal and external (Gligor and Holcomb, 2012). The internal dimension works directly with other functions and competences to organize, integrate and design cross-functional processes inside the firm (Morash, Droge and Vickery, 1996). The external dimension expands logistics outside the company boundaries to link suppliers and customers. As strategy, logistics generates the capability to synchronize and incorporate interdependent processes regarding the flow of goods, services and related information across major functional areas both materials management and physical distribution. Through this unique attribute from logistics, the firm can generate a supply chain capability by integrating processes, resources, operational and systems interfaces to maintain operational coordination while decreasing redundancy (Mentzer, Soonhong and Bobbitt, 2004). Moreover, logistics capabilities enable the firm to generate flexibility in the supply chain to cope up with the uncertainties of nowadays business environment.

Five relational functions to manage SMEs internationalization (i.e. market management, knowledge management, network management, innovation manage-

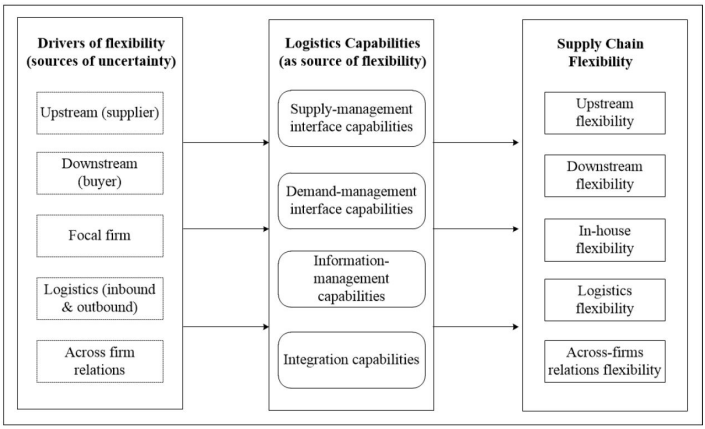

Figure 1: Relationship between drivers of flexibility, logistics capabilities and SCF

ment, and resource management) are identified from the literature review on internationalization. For the purpose of this work, a relational function for internationalization refers to the management of activities to set the internationalization strategies of a firm and coordinate its internal functions as well as the relationships and efforts within its business network. The firm will be able to accomplish internationalization objectives through the effective use of the available resources, functional competences, and organizational abilities within the supply chain.

The functions of market management and knowledge management set the main internationalization strategy that the firm will adopt through the analysis of the body of knowledge gained from the experiences overseas and the information flow within its supply chain. The recognition of opportunities is one of the main capabilities related to these functions as it prompts the design, adoption or modification of internationalization strategies through the valuation of future opportunities in foreign markets (e.g. selecting the entry mode). The stage approach identified the market knowledge as a key factor to succeed overseas (Johanson and Vahlne, 1977). Moreover, it highlights the influence of internal and external drivers of internationalization and stresses the need for a different exporting strategy according to each degree of internationalization and the commitment

with foreign markets (Johanson and Vahlne, 2009). Thus, the development of information exchange is essential for managing, analyzing, acquiring, storing, and distributing strategic and tactical information in the interior as well as with the exterior of the firm (Mentzer, Soonhong and Bobbitt, 2004). Further, a sustainable competitive advantage is the result of organizational learning (Mentzer, Soonhong and Bobbitt, 2004) and SCF (Singh and Acharya, 2013) among other elements. Information exchange prompts collective learning processes about organizing manufacturing abilities and the incorporation of technology streams (Mentzer, Soonhong and Bobbitt, 2004). SCF, as strategy improves the ability to respond to fluctuations in the environment. Aligning information systems enables firms to satisfy changing information requirements within the supply chain in order to accomplish strategic goals and identify business opportunities (Singh and Acharya, 2013).

Through the network management, the firm sets its internationalization strategies regarding its relationships within the supply chain. Further, this function depends on the firm' networking capabilities as the internationalization process depends on the network relationships of the firm (Johanson and Vahlne, 2009). In addition, highly specialized and transferable resources (except the most strategic ones) are appreciated in a networking firm, but the full use of these resources will depend on the firm' networking capabilities. Pihkala, Varamaki and Vesalainen (1999, p.340) defined networking capabilities as the "abilities such as communicating skills, cooperativeness, ability to share a vision, trust, ability to act as a network broker, customer orientation, ability to use market information, knowledge of co-operative arrangements and market orientation". In contrast to the case of born global, if the firm has poor of these capabilities, the internationalization process will be in an incremental and progressive way (Felzensztein et al., 2015). In addition, this function is responsible for the process of constructing resources and competences as it represents the main source of exchange, and opportunities as well as prompts innovation and creativity (Johanson and Vahlne, 2009). The internationalization- and competitiveness' degree of the network influences the internationalization- and competitiveness' degree of the firm. Consequently, the relationships within the network stimulate the process of firm' internationalization (Johanson and Vahlne, 2009). Gligor (2014, p.586) suggested that firms aspiring to integrate supply chain strategies must have supply chain orientation and "must develop firm-level strategies consistent with their supply chain orientation and their objective of competing through agile response". Firms that develop flexible strategies will recognize the importance of integrating demand and supply, along with process flexibility. Thus, flexibility in the supply chain needs alignment

between each supply chain partners and it is accomplished through information sharing (Singh and Acharya, 2013). Furthermore, logistics capabilities enable the development of differentiation strategies of products and service through value-added activities. Mandal (2016) found that trust, commitment, power, and reciprocity the socio-exchange attributes have a positive and direct impact on integrated logistics capabilities that are also positively related to the enhancement of the supply chain performance. Trust and commitment are explicit elements of the network approach (Johanson and Vahlne, 2009) which implies a learning process embedded between internationalization, the development of logistics capabilities to achieve SCF.

Innovation management refers to firm's usage of resources and competences, knowledge, and risk-taking and proactive behavior to create value and differentiation through the transnational coordination of the firm business network. The international entrepreneurship approach explains firms' internationalization through innovativeness, and risk-taking and proactiveness (Felzensztein et al., 2015). Additionally, superior levels of trust, knowledge, and commitment lead to efficient and innovative processes (Johanson and Vahlne, 2009). Creating supply chain flexibility is one method to face the uncertainty of demand, especially in innovative categories of products (e.g. electronic devices) or mass customized products (Stevenson and Spring, 2007). Moreover, firms are forced to plan the strategic use of their resources and manage their innovation regarding the customer demand and competitors behavior (Lummus, Duclos and Vokurka, 2003). Further, "value chain flexibility reflects the current state of embedding process innovation into the supply chain operations and being proactive in managing supply-demand fulfillment" (Hock Soon and Mohamed Udin, 2011, p.507). For developing innovation, it is necessary to determine the functional responsibilities across the supply chain in a rapid and effective way. High levels of logistics capabilities within the supply chain partners might increase the development of new products, services and processes to reach competitive differentiation (Esper, Fugate and Davis-Sramek, 2007).

Last, resource management sets appropriate strategies to acquire, develop, adjust and coordinate the sourcing and use of resources along firm's business network. Johanson & Vahlne (2009) stated that the adjustment of resources and the coordination of activities within the "outsidership" are necessary. Thus, the networks are fundamental to enable SMEs the development of their limited resources (Pihkala, Varamaki and Vesalainen, 1999). The acquisition and development of logistics capabilities might influence the generation of sustainable internationalization strategies, since they facilitate the total cost reduction in supply chain operations,

and enable postponement, modularization, and standardization strategies (Esper, Fugate and Davis-Sramek, 2007). Moreover, through the development of logistics capabilities, implementing SCF strategies will mean a competitive advantage as the firm enhances its ability for shipping and receiving goods rapidly and efficiently as sources of supply and customers fluctuate (Stevenson and Spring, 2007; Singh and Acharya, 2013).

5 Conclusions and Future Research

From the multidisciplinary literature review, it is concluded that internationalization is a complex process. For achieving a competitive and sustainable advantage in foreign markets, the role of decision makers is to select and develop effective resources and competences. The market knowledge, network relationships, value system, and an entrepreneur behavior are indispensable elements in SMEs' internationalization. Stank, Davis and Fugate (2005, p.29) stated "creating and sustaining competitive advantage is an important part of the strategic planning process". A firm's strategy built up regarding external factor from the environment will drive the process to develop a structural and operational organization. "Firms that have properly aligned strategy with structure are expected to perform better than competitors that lack the same degree of strategic fit". As the competition scenario shifted from single firms' competition to supply chains' competition, SMEs have to implement a supply chain orientation, particularly to face international dynamic markets. This might lead to accomplish a competitive and sustainable advantage. SMEs in a supply chain have to coordinate and incorporate logistics capabilities as individual firms with their supply chain partners to compete with enterprises outside their supply chain. It is also necessary to mention that the main research of the areas of interest is conducted in developed and industrialized markets. There are only a few studies analyzing the impact of internationalization of SMEs from emerging markets, particularly in Latin American countries.

This research presents the first phase in building an integrative conceptual framework to integrate and describe the relationship between the three areas of interest (i.e. internationalization approaches, SCF and logistics capabilities) (see figure 2).

We identified five relational functions to manage SMEs internationalization processes (i.e. market management, knowledge management, network manage-

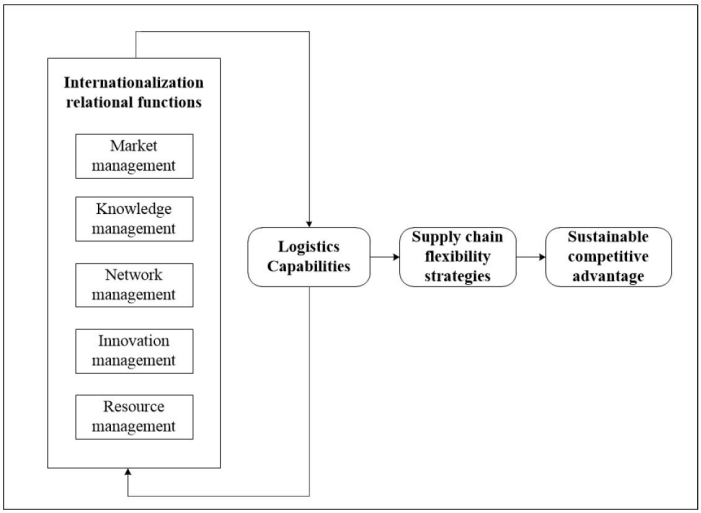

Figure 2: Conceptualizing SMEs internationalization, logistics capabilities and SCF relationship

ment, innovation management and resource management). These functional areas will enable the integration of information, resources, processes, operations, and capabilities with the SMEs-supply-chain partners. In the other hand, the development of logistics capabilities will enable the alignment of the firm with the customer demand as well as the supply side. The result of this iteration will contribute to the achievement of SCF strategies and as a consequence to the development of a sustainable competitive advantage. Further hypothesis and empirical research are needed to support the conceptualized relationships.

Additionally to the contribution to the theory regarding the role of the logistics capabilities in achieving SCF strategies for SMEs internationalization, there are also managerial implications. Managers and decision makers need to recognize the necessity of developing logistics capabilities in order to create sustainable internationalization strategies. SMEs might shift and respond more effectively to the dynamics of international markets by increasing their interior and exterior flexibility, alignment, and integration. Moreover, this will lead to improving SMEs innovation and logistics management due to the positive influence of logistics capabilities and SCF on creating value and better managing limited resources.

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