Greve and Hansen
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The role of shipping and logistics MNCs in economic development: a case study of how Maersk contributed to Vietnam's ascendence to an export oriented economy

Majbritt Greve[1] and Michael Wendelboe Hansen[1*]

*Correspondence:
mwh.msc@cbs.dk

[1] Copenhagen Business School, Dalgas Have 15, 2000 Frederiksberg, Denmark

Abstract

This paper assesses the role shipping and logistics foreign direct investment (FDI) plays in developing country export performance, exemplified by the case of the large multinational corporation (MNC) Maersk's investments in Vietnam. The paper aims to generate a deeper understanding of how the introduction of advanced shipping and logistics services by a foreign investor contributed to export growth. The paper is based on a longitudinal case study of Maersk in Vietnam employing more than 100 interviews from Maersk, Maersk's clients, subcontractors, and industry experts conducted between 2003 and 2016, complemented and validated by primary commercial data from Maersk, and secondary industry- and market data. The paper finds that during that period, Maersk impacted Vietnam's export performance through five mechanisms: 1. Building infrastructure; 2. Creating connectivity and market access; 3. Reducing transaction and logistics costs; 4. Bringing buyers and sellers together; and 5. Upgrading export capabilities. While transport and logistics MNCs' role in building infrastructure and reducing trade costs is described in the literature, the paper provides novel insights into their role as intermediaries in trade that provide value chain access and transparency, reduce transaction costs for buyers and producers, and upgrade export capabilities. The paper suggests that Maersk's contributions to Vietnam's export growth from 2003 to 2016 in part can be attributed to its unique competitive advantages originating from its superior organization, technology, and capital intensity. The paper contributes to the literature by deepening it's understanding of the mechanisms through which large shipping and logistics MNCs influence developing countries' export-led industrialization; by proving novel insights into the role of Maersk in Vietnam's development path; and by providing and validating an analytical framework for analyzing shipping and logistics MNCs' role in export led development that may inspire future research,

Keywords: Container shipping, Logistics and connectivity, Development impact, Global value chains, Vietnam

Introduction

This paper assesses Maersk, one of the world's largest shipping companies, and its role in Vietnam's remarkable export-led industrialization. Maersk is one of the world's largest container shipping MNCs, with a number one or number two position consistently over the last two decades (Alphaliner 2023). Maersk has followed an expansive internationalization and diversification strategy through foreign direct investment (FDI) and strategic alliances (Sornn-Friese 2019; Jephson and Morgen 2014), making it one of the few truly global shipping companies (Prockl et al. 2013; Gadhia et al. 2011), and one of the most vertically integrated shipping companies across networks and organizations. Such integration has allowed Maersk to become one of the most developed freight integrators worldwide, offering customers seamless container transport and trade logistics solutions across global/local route networks and transport modes (Baird 2015; Prockl et al. 2013; Ducruet and Notteboom 2012; Notteboom and Merxz 2006).

Maersk entered Vietnam during 1991 at an early stage of development, when the country had just enacted the Doi Moi economic reform program, it was among the first few container shipping lines to connect Vietnam to international markets and later, in 1995, among the first to introduce more advanced logistics services while investing in Vietnam's first deep sea port in 2007 (Manager 1, 2003). Thus, Maersk participated in Vietnam's astonishing economic boom that by 2015 had catapulted the country from a less-developed agrarian country to a lower-middle-income country driven by industry and manufacturing (World Bank 2015). With a five-fold increase in exports during the period of this study (2003–2016), Vietnam became one of the most trade-oriented countries in the world (IDA 2010; World Bank 2015).

Since Maersk's entry in Vietnam and during the time of this study, the shipping company held a market-leading position accounting for around 18–22% of the export liner shipping market (in TEU capacity) and 12–19% for liner shipping imports for international trade lanes (excl. intra-Asia) (Maersk commercial data, 2005–2015). During the time of the study, Maersk's logistics business also held a leading market position within the fragmented market for third-party logistics services for specific segments (e.g. retail, fashion, sporting, lifestyle) (Maersk commercial data, 2015). Since Maersk's early entry the Vietnamese markets for shipping and logistics services has mainly been served by foreign companies with the markets becoming increasingly competitive. By 2015, 40 foreign carriers out of 46 handled 80% of Vietnam's container exports and imports. For logistics, 25 foreign operators out of 1200 logistics operators accounted for 80% of the market with only foreign providers offering more advanced third-party and fourth part logistics (Vietnam Briefing 2015; Blancas et al. 2014; VPBS 2014).

Thus, the case of Maersk in Vietnam's early export boom provides a unique opportunity to assess the role of shipping and logistics FDI in developing country export performance, FDI being the defining characteristic of a MNC (Dunning 1979).

While shipping and logistics FDI may play an essential role in economic development, the literature provides limited insights into this topic: The trade and transport economic literatures have devoted little attention to shipping in economic development, making some scholars label shipping a forgotten and invisible industry (Harlaftis et al. 2012). Likewise, International Business (IB) literature, which otherwise has a long tradition of studying the effects of FDI on economic development (Narula and Pineli 2017), says

little about FDI in shipping and logistics service sectors (Arnold et al. 2016, 2011; Moran 2011; Doh and Pearce 2004). And while the Global Value Chain literature's sibling on Global Production Networks have started to analyze the role of shipping and logistics in integrating global production, these literatures in general pay much more attention to the producers of the goods and much less attention to the firms and locations involved in moving the goods (Coe 2014; Coe and Hess 2013; Rodrigue and Hesse 2006). Overall, none of the literatures dealing with the impacts of shipping and logistics FDI adopts a firm level perspective, where strategy, organization and management of shipping and logistics MNCs are linked to development processes (Arnold et al. 2016; Narula and Pineli 2017; Harlaftis et al. 2012; Doh and Pearce 2004; Kind and Strandenes 2002).

Hence, the purpose of this paper is to fill some of the gaps in the extant literature: First, the paper aims to provide a better understanding of how shipping and logistics FDI impacts economic development, thus contributing to a literature that only to a limited degree have studied this industry from an economic development perspective. Second, the paper aims to provide a better understanding of the mechanisms through which shipping and logistics FDI impacts export performance, thus filling a gap in a literature that mainly analyzes impacts and not the mechanisms causing those impacts. Third, the paper aims to provide a firm level understanding of shipping and logistics FDI's impact on countries' export performance, thus filling a gap in a literature that mainly provides country and industry level analyses. Overall, the paper contributes to the literature by developing and empirically validating an analytical framework for studying the role of shipping and logistics FDI in developing country trade that may inspire future research.

Using a longitudinal, qualitative case study design, the paper will in the following examine how Maersk impacted Vietnam's export performance up until 2016, providing novel insights into Maersk's impact on Vietnam's export performance, the mechanism through which these impacts occurred, and the conditions that shaped Maersk's role in Vietnam's export trajectory.

Literature review and analytical framework

In particular three literatures are relevant to understand the role of shipping and logistics MNCs in developing countries, i.e. the International Trade, the Global Value Chain, and the International Business literatures. These literatures are relevant as they, in more or less direct ways, address the overarching topic of this study, i.e. the development effects of shipping and logistics FDI. Other adjacent literatures are referred to in passing, e.g. transport economics, transport geography, transport studies, and supply chain management. However, as these literatures are not specific on the topic of the paper—development impacts of shipping and logistics FDI—they will not be reviewed in detail. The three literatures are complementary in the sense that they each offer insights on different aspects of the topic, at different levels of the economy (macro, meso and micro), and apply different methods.

International trade literature

International Trade literature contributes to the topic by assessing shipping and logistics as sources and determinants of trade costs that explain flows, patterns, and welfare implications of trade (Chen and Novy 2011; Novy 2013; Arvis et al. 2013; Jacks et al.

2011; Melitz 2003). This literature defines transport and logistics as sources of trade costs for developing countries. The conceptualization of shipping and logistics have evolved from a narrow focus on transport costs to a broader focus on logistics and the general trade-facilitating environment between countries (Veenstra 2015); costs matter, but equally important are the quality of transport infrastructure and services (i.e. time, reliability, and integrated logistics) (Anson et al. 2020; Hummels 2007; Hummels et al. 2009; Kaukiainen 2014, 2012) and the ease of moving goods (e.g. border processes, shipping ease, tariffs, and technical barriers) (Button and Vega 2012; Levinson 2006; Stopford 2015; Harlaftis et al. 2012; Arvis et al. 2013; Novy 2013; Hoekman and Shepherd 2013; Anderson and Wincoop 2004; Morgan and Katsikeas 1997; Krugman 1997; Fischer and Norvik 1986). These measures are among others operationalized in industry indices, such as liner shipping connectivity and logistics performance, to determine the sector's significance to trade (Arvis et al. 2023;b Luttermann et al. 2020; Arvis et al. 2013). Econometric studies applying these industry indices find that shipping connectivity/logistic performance are some of the most statistically significant determinants of trade costs and trade (Arvis et al. 2013; see also Greve 2022 and Bang et al. 2014 for a statistical study of these indices and Maersk in China). Other studies involve more variables associated with trade costs referring to general trade facilitating measures (Munim and Schramm 2018; Chen and Novy 2011; Novy 2013). Second, the trade intermediaries strand of the international trade literature conceptualizes shipping, especially logistics operators, as export intermediaries, or middlemen in international trade (Daunfeldt et al. 2019). The literature points to various functions of trade intermediation that these fulfill, relating to both transaction-creating services and physical fulfillment services (Rosenblom and Andras 2008; Balabanis 2000). Such literature suggests that trade intermediaries affect trade costs by influencing the costs of managing international trade, including distribution and warehousing, search and matching cost, and information costs, by making information available and creating market visibility and transparency (Daunfeldt et al. 2019).

The literature, however, also has some shortcomings in relation to the topic of this paper. It espouses econometric methodologies that use aggregate and country-based approaches, and is challenged to account for variations across sectors, commodities, firms, and time (Hummels 2007; Kaukiainen 2014; Veenstra 2015). Hence, it provides limited conceptualizations of what occurs at industry, firm, and commodity level (Hoekman and Shepherd 2013; Mayer and Milberg 2013), exception being Melitz (2003), who addresses firm heterogeneity (e.g., firm productivity and export statuses). In short, the trade literature offers limited insights into actors in the maritime and logistics industry and how they either drive or hinder trade, and the distribution of trade gains (Hoekman and Shepherd 2013; Mayer and Milberg 2013; Saslavsky and Shepherd 2014; Dennis and Shepherd 2011).

Global value chain literature

Global Value Chain (GVC) literature focuses on the integration of developing countries and their firms into GVCs, and the implications of such structures for industrial upgrading of developing countries' firms, industries, and trade. The literature argues that developing-country firms commonly depend on lead firms to access developed-country

markets and the capabilities and technologies required to upgrade their value chains and trade (see Gereffi and Fernandez-Stark 2011; Sturgeon 2008; Gereffi et al. 2005). Related literature on global production networks (GPN) has conceptualized the role of shipping and logistics services, industries, and firms in GPNs (Coe 2021; 2017: 2014; Coe and Hess 2013; Coe et al. 2008). GPN literature analyzes the strategic intermediary position of the shipping and logistics sector in GPNs that might have implications for upgrading of developing-country firms and their ability to gain access to GPNs. The literature suggests that the role of transport is much more complex than a mere support to GPNs, as portrayed in conventional economic theory. The GPN literature suggests that shipping and logistics firms hold an intermediary, integral, and strategic position in GPNs (Rodrigue and Hesse 2006; Coe 2021: 2017: 2014; Coe and Hesse 2013; Coe et al. 2008; Memedovic et al. 2008; Aoyama et al. 2006; Rodrigue 2006).

Gaps in the literature related to the current study are that the GVC and GPN literatures in general pays much more attention to the producers of goods and services, and the global flows of capital and knowledge, and much less attention to firms and locations involved in moving the materials and products (Hesse and Rodrigue 2004; Coe 2017: 2014; Coe et al. 2008).

International business literature

International Business literature contributes to the topic of this paper by assessing the existence of MNCs and why they invest abroad (Narula and Pineli 2017; Meyer 2004). A part of the literature focuses on the benefits and costs of hosting FDI and MNCs in developing countries, which links to economics literature (i.e. spillover literature) (Narula and Pineli 2017; Blomström and Kokko 2003; Meyer 2004). Such literature conceptualizes how effects may derive from the MNCs' ownership-specific advantages related to their organization, capital, and technology intensity. Such advantages (e.g. product differentiation, monopolistic advantages, superior technologies, and economies of scale) are particular to the firm, related to entry mode and motive, and are more easily transferable within the firm across national boundaries (Dunning 1998). Due to market imperfections, which are particularly widespread in developing countries, MNCs might voluntarily or involuntarily transfer firm-specific assets to local firms and institutions (Blomström and Kokko 2003). These transmission channels involve, for example, inter-firm vertical/horizontal links and unintended spillover effects through demonstration, competition, and labour turnover) (Narula and Pineli 2017; Hansen and Schaumburg-Müller 2006). The literature also argues that FDI effects are shaped in the dynamic interface between firm- and location advantages (Narula and Dunning 2010; Nunnenkamp et al. 2003).

A central knowledge gap of the IB literature related to this paper is that sectoral perspectives on intermediaries in general, and shipping and logistics MNCs in particular, are almost non-existent (for similar point see, Arnold et al. 2016; Moran 2011; Doh and Pearce 2004; Ramarmurti and Doh 2004; Harlaftis et al. 2012; Panayides 2002). Moreover, studies that investigate FDI effects commonly use econometric aggregate approaches that fall short of assessing firm-level dynamics and explicitly linking MNC ownership specific advantages with effects on host developing countries (Driffield, and Love 2007; Narula and Pineli 2017; Giroud and Scott-Kennel 2007).

Strengths and shortcomings of the literature

In total, the three bodies of literature reviewed in the above contribute with different perspectives on the role of shipping and logistics FDI in economic development. The literatures direct attention to at least three interrelated perspectives on the dynamics through which impacts from shipping and logistic FDI and MNCs on export performance occur. I.e. 1) through the provision of the transport and trade logistics infrastructure and service (the supply, quality, variety, and costs) affecting shipping and logistic connectivity and performance; 2) through their function as trade intermediaries that influence the cost of managing international trade transactions, and influence the search, information and matching costs by bringing seller and buyers together and by upgrading export capabilities and the opportunities to link up to GVCs; 3) the multinational character of the firm that allows it to transfer and deploy superior technologies and knowledge, finance infrastructure, and design and operate global networks.

However, the three bodies of literature also have certain shortcomings for providing sufficient explanations for shipping and logistics FDI's impact on economic development. Across the literatures, the role of the service sector and in particular shipping and logistics sector remain ambiguous and subject to shallow interpretations: Hence, they generally underestimate the role of intermediating shipping and logistics investments in facilitating export oriented economic development (Harlaftis et al. 2012; Greve 2022). In particular, there is a lack of understanding of the precise mechanisms through which shipping and logistics FDI impacts export oriented economic development. Hence, a key aim of this study will be to identify the mechanisms through which shipping and logistics FDI impact on export performance of developing countries. Second, the extant literatures lack a clear conceptualization of the conditions under which shipping and logistics FDI contributes to economic development measured through export performance. Hence, it is essential to understand how country level specificities (e.g. policies, institutions, market structures) as well as firm level factors (e.g. strategies and capabilities of the investing MNCs) shape the impacts of shipping and logistics FDI on export performance. In the following we will present an analytical framework that addresses some of the shortcomings of the extant literature.

Analytical framework

Based on the three literatures and addressing their shortcomings in relation to our research topic, we propose an analytical framework that integrates components from the literature and address knowledge gaps by taking the analysis to the firm level and exploring and disentangling the mechanisms through which shipping and logistics FDI influences export performance and identify the firm and location specificities that shape these mechanisms (see Fig. 1).

The framework comprises four interrelated research dimensions. Shipping and logistics FDI is seen as a source of economic development in this study (UNCTAD 2008: 2004). Export performance is the key dependent variable and is measured through change in export volume or value and/or diversification (Dennis and Shepherd 2011). The term 'mechanisms' derives from FDI and GVC literatures and refers to the channels (Narula and Pineli 2017; Blomström and Kokko 2003) and processes (Coe 2014) through

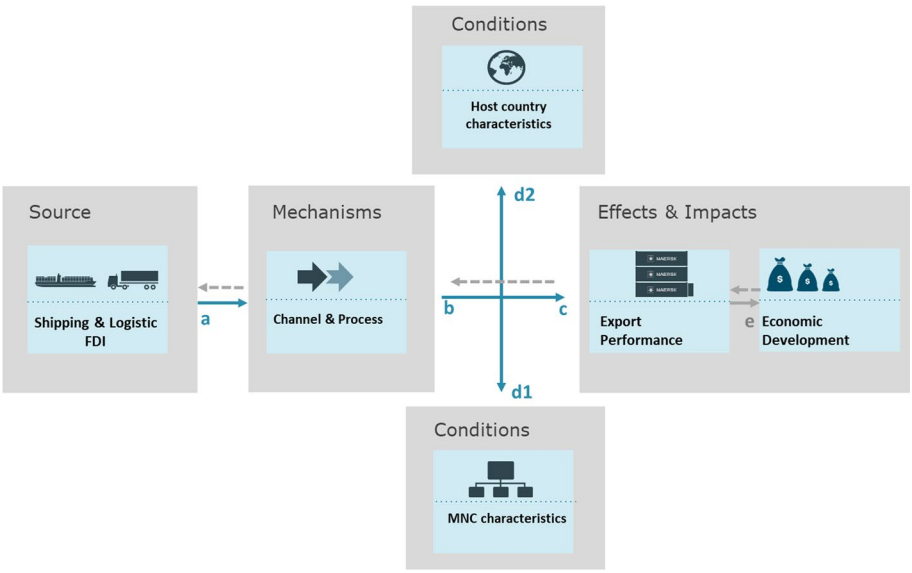

Fig. 1 Analytical framework

which shipping and logistics FDI impacts export performance. Based on a review of the three literatures, five mechanisms through which FDI in shipping and logistics can impact trade performance can be identified: (1) Building infrastructure (see e.g. Ramamurti and Doh 2004; Limao and Venables 2001; Portugal-Perez and Wilson 2012); (2) Creating connectivity and market access through the provision of the service (see e.g. Arvis et al. 2013; Hoekman and Shepherd 2013; Rodrigue et al 2013; Ducruet and Notteboom 2012; Veenstra 2015; Hummels and Schauer 2012; Hummels et al. 2009); (3) Reducing transaction- and logistics costs (Daunfeldt et al 2019); (4) Bringing sellers and buyers together (Daunfeldt et al. 2019; Zacharia et al. 2011; Spulber 1996); (5) Upgrading export capabilities (Giroud and Scott-Kennel 2009; Blomström and Kokko 2003; Coe and Hess 2013) (for more on how these mechanisms were derived, see Greve 2022). Based on insights from the IB literature (see e.g. Narula and Dunning 2010; Blomström and Kokko 2003), it is postulated that the relationship between FDI inflows and export performance is conditioned by the distinct competitive advantages and characteristics of the foreign investor (so-called 'ownership specific advantages' (Dunning 1998)) as well as specificities of the host country in question related to level of development, institutional quality and market development (so-called 'location-specific advantages' (Dunning 1998)) and the interface of those ownership specific and locational advantages (Narula and Dunning 2010). In the following, this framework (Fig. 1) is used to structure the empirical analysis of Maersk in Vietnam.

Methods and data

Data collection and analysis

This case study covers the period 2003 to 2016, during which period longer field studies took place in Vietnam (2003, 2007, and 2015). It is based on real-time and retrospective

data (i.e., asking respondents for perspectives on changes during the period, before, and between) to capture changes to the firm and its context. This period coincides with an astonishing export expansion and diversification of Vietnam and is thus well suited to analyze potential dynamics between economic development processes and shipping and logistics FDI. During that period, the researchers had direct access to the company and was embedded as researchers in Maersk (see Greve 2022).

The case study is based on more 100 semi-structured interviews, archival data and documents, and participant observations. The sample of interviews totals 90 respondents and 104 interviews of which 58 respondents are internal and 32 are external to Maersk (see Table 1). Interviews were used to structure and validate the knowledge claims of this paper while considering respondents' reliability and using triangulation and replication logics when possible. Interviews were anonymized by assigning interview codes based on the type of organization and on respondents' managerial level. Interview data were analyzed using coding according to the analytical dimensions that assigned meaning to the data (Miles and Huberman 1994) (for more on coding for this research, see Greve 2022). In keeping with an abductive process, codes were created, altered, and grouped in a dynamic process of 'systematic combining', matching and going back and forth between the data, framework and analysis (Dubois and Gadde 2002). The coding process allowed for a structured process and can result in insights suitable for initial theory building (Gerring 2007; Yin 2009).

Generalizations

The paper seeks to understand, how Maersk impacted Vietnam's export performance during the studied period, which in and by itself is a relevant and interesting topic given the high profile of both Maersk and Vietnam in international trade literature. However, the paper also provides insights that can be generalized beyond the case. Typically, the literature distinguishes between two forms of generalizations, empirical and theoretical (Gomm et al. 2000; Sharp 1998; Tsang 2014): Empirical generalizations concern generalizations from a case or a sample to the population or to another population. Relying only on one or a few cases obviously entails an inherent danger of selection bias compared to studies with large samples (Moran 2005). This potential problem can, however, be mitigated, for instance by comparing findings of the case study with findings of other similar studies (Moran 2005). If the findings correspond to similar findings related to similar companies in other locations or other companies in similar locations, there may be greater basis for empirical generalization. In this study we will make the generalizability of our empirical findings more probable by relating them to findings of other similar studies. Theoretical generalizations (what sometimes is also referred to as 'analytical generalizations' (Yin 2009)) are about developing explanations for relationships between variables (Sharp 1998), what Bunge (1997) calls 'mechanismic explanations' (Tsang 2014). Hence, case studies allow researchers to unveil the mechanisms that explain relationships between variables and to specify their contingencies (Gerring 2007). Compared to quantitative studies, case studies are especially well-suited to develop such theoretical generalizations (Eisenhardt 1989; Yin 2009) as they can help build new theories and/or

revise and deepen existing theories. In this paper, the case study approach is used to develop and deepen an analytical framework that proposes through which mechanisms shipping and logistics FDI may impact export performance as well as the conditions under which these impacts may occur.

The case of Maersk in Vietnam

Vietnam: an export oriented emerging economy

Since the introduction of the Doi Moi reform during 1986, Vietnam experienced rapid economic growth, making it the second fastest growing country worldwide from 1986 to 2014 and lifting people out of poverty (BMI 2013). Vietnam's economic boom is driven by massive increases in FDI and exports within manufacturing and industry (Blancas et al 2014; Blancas 2014; UNIDO and MPI 2012). During the timeframe of this study, exports increased five-fold (UNIDO and MPI 2012; IDA 2010; World Bank 2015), comprising 86% of GDP in 2014 (up from 30% in 1991, making Vietnam one of the most trade-oriented countries in the world. Its primary export markets are Asia (49%), Americas (21%), and Europe (26%) (Binh Le 2015; General Department of Vietnam Customs 2015). Vietnam's export composition diversified and upgraded from small exports of primarily agricultural products to concurrent exports of low-cost, labor-intensive commodities, such as textiles and garments, furniture and electronics (Van Arkadie 2003; World Bank 2016; UNIDO and MPI 2012; BMI 2013), and recently more high-tech sectors, such as mobile phones (Rowan 2015; Tuoi Tre News 2015). This development allows us to study the role of Maersk in such export upgrades. From a value chain-upgrading perspective, Vietnam also provides a complex context, since most of its manufacturing exports during the time of the study were conducted by foreign-invested enterprises (FIEs), amounting to 63% of total export value during 2015, up from 27% during 1995 (General Department of Vietnam Customs 2015; General Statistical Bureau of Vietnam 2015; Binh Le 2015; Thi anh Dao et al. 2014). From a container transport sector perspective, Vietnam is a unique context with exceptional progress made to the container transport and trade logistics sector during the study period (BMI 2013; Blancas et al. 2014; VPBS 2014). Coming from a very low, nearly non-existent, base of container transport technologies, Vietnam's liner shipping connectivity rose by 523% between 2004 and 2018, and its national logistics performance from a rank of 53 in 2007 to 48 in 2014, of 160 countries. Concurrently, container trade grew by 17.6% (CAGR) from 2000 to 2013, reaching 8.5 million TEU (World Bank's World Development Indicators and the Vietnamese Port Association, Sept. 2015), which made Vietnam the 12th largest exporter of containerized commodities worldwide by 2015 (Alphaliner). In short, Vietnam's unique FDI and export-led development path allows this study to investigate the dynamic relations between the world's largest shipping firm and exceptional export growth.

Maersk in Vietnam

At the time of this study, Maersk was the world's largest container shipping company, a position it had maintained since 1993, following the acquisition of EAC Ben-line (Sornn-Friese 2019). Maersk has over time followed an internationalization and diversification

strategy, diversifying into complementing businesses such as container terminals, logistics, and inland services (Jephson and Morgen 2014), making the company one of the few truly global shipping companies, and one of the most integrated shipping companies in the industry across organizations and networks (Prockl et al. 2013; Ducruet and Notteboom 2012; Gadhia et al. 2011; Notteboom and Merxz 2006). Maersk ranked as the top carrier among the top three in terms of its integration into logistics (Baird 2015).

Maersk entered Vietnam during 1991 at an early stage of development, and was among the first two foreign lines to accept cargo to Europe and connect Vietnam to an international network (Manager 1, 2003). During 1993, Maersk started calling ports in Vietnam with feeder services through its joint venture APM-Saigon Shipping (Jephson and Morgen 2014). Since then, Maersk has expanded its activities and investments in Vietnam, bringing in Maersk's logistics business in 1995 (i.e. Damco, a predecessor to Mercantile and Maersk Logistics) and investing in Vietnam's first deep sea port, Cai Mep, around 2007. It has also invested in extending the route network in Vietnam, and in warehouses and logistics hubs (Fig. 2).

By 2015, Maersk's major business units in Vietnam included Maersk (liner shipping), Damco (third-party logistics), MCC Transport (intra-Asia feeder services), Safmarine (liner shipping/Africa), and APM-Saigon Shipping (local services). Since its early entry, Maersk has maintained a market-leading position in liner shipping in Vietnam, with a market share of 18% to 22% for exports and 12% to 19% for imports (in TEU capacity) for international trade lanes (excluding Intra-Asia) (Maersk data, 2005–2015). Since Maersk's entry, the market became increasingly competitive. By 2015, 40 foreign carriers out of 46 handled 80% of Vietnam's container exports and imports (VLA 2015; Blancas et al. 2014). Accordingly, its logistics arm, Damco, has, since its early entry in 1995, also led the fragmented logistics market in Vietnam, within third-party logistics (3PL) services for specific segments, such as retail, fashion, sporting, and lifestyle. By 2015, 25 foreign operators out of 1200 accounted for 80% of the logistics market, with only foreign providers able to offer more advanced third- and fourth-party logistics services (VPBS 2014; VLA 2015). Maersk's liner shipping business also maintained its market leading position during the timeframe of the study, with a market share of 18–22% of exports and 12–19% of imports for international trade lanes and (TEU capacity, excl. Intra-Asia trade) (Maersk commercial data, 2015). A number of interviews point to Maersk's first mover entry strategy as key explanation for Maersk's favorable market position in Vietnam, *"First mover advantage, it's there. Not only have we been here for a long time, but we've built up relationship with the port and customers….We have staff here that has*

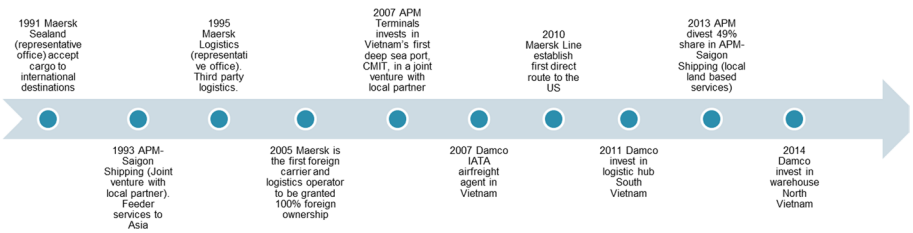

Fig. 2 Maersk's entry and establishment in Vietnam. ***Source***: Authors' development based on commercial data from Maersk from 2003, 2006 and 2015

worked with the same customers for 20 years…There's a reason why we're market leading: because we are the biggest, we've been here for a long time, we have the products…." (Manager 26, 2015). Accordingly, Maersk brought in its logistics at an early stage, "*The logistics industry is still in an infant stage in Vietnam…we have first mover advantage… Number one is our volume and market share and number two is our seniority making us one of the leading consolidators."* (Top manager 4, 2003).

Mechanisms through which Maersk impacts Vietnam's export performance

This section analyzes the five mechanisms through which Maersk's FDI in Vietnam may have influenced Vietnam's export performance:

Building infrastructure

Building a container shipping and logistics infrastructure emerged during interviews with both Maersk and clients as an important means through which Maersk influenced export performance. For example, when asked about Maersk's role in development, an executive of Maersk in Vietnam commented that, *"We have the same role as the railroad had in the old days in America and Europe. Without shipping you do not have [global] trade. Today the investment that you need to put into shipping is enormous, which is also why there are fewer and fewer bigger players. Not many smaller companies or countries can afford that…so our role is very important."* (Top manager 2, 2003). Hence, a recurrent theme across interviews with both Maersk and clients was Maersk capacity to undertake capital and technology-intensive container infrastructure investments to alleviate infrastructure bottlenecks and bridge the infrastructure investment gap in developing countries. Such investment usually requires large capital outlays with long-term return on investments in container terminals, vessels, rail, barge, trucking, but also investments in offices, logistics facilities and technologies such as warehouses, inland depots, container equipment and IT systems. A number of clients accordingly emphasized the importance of transport infrastructure in their sourcing operations and decisions as Maersk helped overcome common infrastructure challenges of operating in Vietnam by building transport infrastructure that reduced congestion, lobbying for infrastructure development (such as port developments) and by investing in e.g. client dedicated warehouses facilities and logistics hubs.

By 2015, Maersk had invested around 1 bill USD in port facilities, as well as placing investments in a number of large warehouse facilities, inland depots and own offices across the country (Maersk commercial data, 2015). The investment directly in Vietnam were however only the tip of the iceberg: For instance, a large part of Maersk investments were made in mobile assets such as vessels, IT systems, containers etc. that were not bound to the location. Moreover, investments made outside Vietnam were equally important for connectivity and freight integration in Vietnam; in 2014 alone, Maersk Line invested around 20 mill USD globally in mainly fleet assets and containers (www.maersk.com). Moreover, investment in physical infrastructure is only half the equation: the ability of Maersk to set up an organization at an early stage of development, operate and manage a global container transport and logistic network is equally important. Hence, Maersk has, among other things, implemented EDI technologies in domestic

ports; implemented IT systems at warehouse subcontractors; and transferred knowledge about operating international container networks to partners.

Creating connectivity and market access

According to literature, the networks of shipping lines feature great diversity in types of liner services, and complexity in the way end-to-end services, line-bundling and transshipment operations are connected (Ducruet and Notteboom 2012). The design is highly interlinked to the trade growth patterns of the countries and regions within which they trade. Shipping lines design and the concentration of liner shipping networks have implications for how developing countries are linked to global markets (Ducruet and Notteboom 2015; Ducruet and Notteboom 2012).

Maersk has opted for a global hub-and-spoke network design, and a truly global liner shipping network that connects all major and minor ports around the world. The general benefits of the hub and spoke network is that it multiplies shipping options and improve countries' connectivity to export markets (Ducruet and Notteboom 2015; Ducruet and Notteboom 2012). Moreover, the concentration of container flows at major regional ports offers efficiency and economies of scale to shippers (Rodrigue et al. 2013). Across the interview sample, a number of liner shipping connectivity parameters and their implications for Vietnam's export growth recurred, which can be summed up as service costs, quality and concentration:

Costs of services

Several interviews pointed to transport costs as important to connectivity, with one Maersk manager in Vietnam saying, "*Look at the average freight rates for the last 15 years… You can see how much we have actually managed to save to enable global trade… average freight rates are probably dropping by 2% a year. That obviously enable even more trade…. We are for example shipping really cheap stuff from Hanoi to India, which is paying very little… We can see that the minute freight rates increase, this cargo doesn't move because there's no margin.*" (Manager 26, 2015). Such statements are validated by freight rate data from Maersk in Vietnam, corroborating that export rates reduced by 2% annually across all trade from Vietnam from 2006 to 2014 (Maersk data, 2015, currency and inflation adjusted). A furniture exporter from central Vietnam corroborated the importance of Maersk's services in the region, which enabled him to take out costs from the transport chain to compete with Chinese suppliers. *"Ikea is the driver behind both Maersk and my factory. …Together with Maersk, they are the reason we can operate a large business here employing 7.000 people and creating growth for the town and the town port. These companies can do business in areas that are non-standard."* (Client 1, 2003). In concordance a manager from Maersk argued: *"It is my understanding that we have incredible value in what we do for a country like Vietnam, for development in Vietnam. If Maersk was to withdraw from Vietnam, it would be a large loss for a country like Vietnam. It would mean that large clients would consider relocating. It would remove so much capacity from the market" (Manager 13, 2006).*

Quality

Consistent with the literature, Maersk and client interviewees mentioned service quality as paramount to connectivity. The majority of clients especially emphasized door-to-door services, reliability, visibility, and IT systems, qualified and educated staff members, and fast response times. Accordingly, the literature suggests that countries served, for example, by more reliable shipping lines enjoy advantages over countries serviced by shipping lines with lower performance (Veenstra 2015; Ducruet and Notteboom 2015; Hummel and Schaur 2012; Kaukiainen 2014; Vernimmen et al. 2007). Related to this, flexibility was emphasized: A global furniture retailer refers to Maersk's flexibility to scale its fleet and carrying capacity: *"We have a long term and dynamic relationship with Maersk and grow our business together. When our volumes grow, we expect Maersk to follow with capacity. We will ask Maersk to deploy another vessel if capacity is too low or create a new route if we need it. Maersk will cater for our needs, and we will provide the business to Maersk."* (Client 14, 2006).

Concentration

The interviewees also identified that the concentration of shipping lines and competition is important to how well-connected Vietnam is to export markets. Maersk respondents in this regard argued that shipping markets in Vietnam had matured and competition intensified during this study with more concentration on main trade lanes, and shipping products becoming increasingly standardized. However, there is a relevant discussion of whether gains from transport and trade improvements are appropriated as rents by Maersk, or trickles down to shippers as reduced costs or improved services. Some client respondents mentioned Maersk's market power and dominance in some trade corridors, and higher freight rates as a competitive disadvantage, while other clients reported that they contracted with Maersk due to competitive or stable freight/logistics rates or argued that higher prices are the result of higher service levels. Probably, both interpretations of Maersk's role have merit; in any case this would be a highly relevant topic for further investigation (see also Greve 2022 or Greve et al. 2007).

Reducing transaction and logistics costs

The interviews and data from Maersk offered various examples of how Maersk may reduce a firm's transaction and logistics costs when outsourcing freight and third-party logistics to Maersk. Such reductions involve optimizing the physical flows of products and/or flows of information (e.g., through optimizing warehousing, route network, freight forwarding, documentation, order processes, payment and financing, and insurance). According to interviewees transaction and logistics costs might reduce, for example, through efficient use of assets (e.g., freight forwarding, consolidation of goods, and optimizing container-stuffing), coordination and synchronization, and automatization of processes (e.g. order and payment processes).

The interviewees pointed to Maersk's intermediary role in global value chains, where global retailers' success increasingly depend on logistics operators to manage clients' international trade transactions. As simplified by a manager of Maersk's logistics business in Southeast Asia: *"We enable that these large clients can source from local suppliers in emerging markets. If we are not present, it is difficult for large retailers such as*

Target or Walmart to source competitively from such markets." (Top manager 9, 2015). Respondents from Maersk in particular brought up freight consolidation and visibility as ways in which Maersk influenced transaction and logistics costs. Freight consolidation (i.e., consolidating multiple vendor shipments into full container loads) represents an example of reducing transaction costs through efficient use of assets (i.e., improving utilization), which is essential to enabling economies of scale in developing countries with small export volumes.

Another example of reducing transaction and logistics costs mentioned during the interviews involves supply chain visibility (i.e., streamlining information flows and providing accurate and timely data). Improved coordination and synchronization reduce transaction and logistics costs, especially in a developing country, with one executive arguing, *"We create visibility between the supplier and client. The more complex and emergent your market is the more important visibility become. If you ship goods from Shanghai to Long Beach, you know that ships depart daily. But when you ship out of emerging markets …you know there is two feeder vessels a week …if you miss this or the vessel schedule change, you may miss the client's delivery window. So visibility becomes more important, the more complex your business and supply chain is."* (Top manager 9, 2015). A footwear client in Vietnam added, *"One of our critical needs in our business is visibility, that we are able to see the cargo before it arrives at destination, that we can plan the supply chain in real time, and control the delivery time. This is the most critical need for all global players, accuracy of information and time."* (Client 13, 2006).

Maersk's e-commerce capabilities represent another example of reducing transaction costs that is brought up in interviews with clients and Maersk (Top manager 10, 2015; Manager 2, 2003; Manager 28 & 31, 2015, Client 12, 2006). *"E-solutions mean less time, less mistakes, and less if not zero additional cost being incurred due to documentation errors. Exporters and importers can benefit from consistent service and transparent processes. As Vietnam seeks to compete in the world economy and trade in higher value added goods, just-in-time production, transaction speed and reliability of service will be key."* (Top manager 10, 2015).

Bringing sellers and buyers together

Maersk may play an important role as a trade intermediary that reduces sellers' and buyers' search costs by matching them and providing market information regarding supply, demand, and market conditions to improve market transparency. Maersk's integrated shipping and logistics services allow shipping lines to collect valuable information across cooperative networks regarding suppliers, customers, partners, and the business environment (Lee and Song 2010). Information is collected to make it easier for shipping lines and logistics operators to identify and respond more quickly to changes in the market and to demand (Lee and Song 2010), but internalizing such knowledge might also benefit partners in the value chain.

The interviewees corroborated Maersk's role in relaying market information to clients and match-making sellers and buyers, which, during Vietnam's early development

between 2003 and 2006, was a proactive process and later a more reactive process of responding to customer inquiries. *"Typically, for some clients, Maersk Logistics will assist them with identifying new vendors, trying to secure new capacities for sourcing… It is part of the ILM [Integrated Logistics Management] group's responsibility to all the customers in the initial phase to allow them to secure new supply lines…if you talk to [anonymized global retailer] …We have played a big role in their entry into Vietnam up until now… for three months we were working with them, providing supplier names and coordinating appointments….this is where I believe we add value…initiated to look at a new market for them…they met with 20 people and are now in the process of making sure the vendors meet their standards, security,* etc." (Manager 14, 2006). A manager at Damco in 2015 validated, *"With regards to how we actually encourage trade, or increase the volumes; we have a huge database of vendors. Who's doing what, who is manufacturing shoes, who is manufacturing cotton clothes* etc*., and we do share this information with other customers in the hope of helping the vendor increase their market share."* (Manager 33, 2015).

Relatedly, Interviewees mentioned Maersk's provision of market information to enhance market transparency for clients. This involved for example general advice on infrastructure and doing business in Vietnam and more customer tailored consultancy services. *"With the implementation of the Bilateral Trade Agreement with the US in 2001, American clients came in large numbers. Maersk were visited by 3–4 larger clients a week, whom all expected to see factories* etc*. for exports"* (Top manager 2, 2003). One manager from Damco referred to firm-specific information, saying, *"We do inform clients about market developments, because we are their trusted advisor. …clients may approach us and say: we would like to grow our footprint… can you help us. Then we start to look at the factories in question and their location…and the feasibility."* (Top manager 9, 2015). This study suggests that the trade intermediary role of relaying market information was essential especially during early stages of Vietnam's development, when market information was imperfect or too costly for individual market actors.

Upgrading export capabilities

Another related theme that emerged during interviews concerns upgrading of export capabilities of domestic firms' that occur as a derived effect of Maersk's trade intermediary position. I.e., that domestic firms, through links with Maersk, gain access to a range of export-oriented resources, capabilities, and knowledge that have implications for their upgrading. Interviewees mentioned circumstances in which upgrading export capabilities occurred intentionally through deliberate technology transfers and training such as Maersk's vendor management services, where domestic firms acquired knowledge about export processes and markets, and foreign preferences. *"The first time you sell a t-shirt to Walmart—it is not easy. You have compliance, labor laws, and several standards that you need to fulfil…. The vendors do not necessarily know the processes or know the difference in the process of H&M and Target. …On behalf of the clients, we conduct vendor workshops. We train the vendors in client procedures such as client documentation, packaging and labelling, stuffing containers, shipping deadlines, security, green footprint,* etc*. In this way, we enable both parties. H&M cannot source without us because they do not have the*

capacity to educate, and the supplier will not be able to ship without us, because they do not understand what it is that H&M needs. So we become the link between the two—especially when client and suppliers are starting up a process." (Top manager 9, 2015). Vendor training also occurred due to incentive structures in contracts with larger clients. *"…if you would like to do more business with Marks & Spencer then you have to invest in our vendors. Often we will have KPIs in our scorecard with the client that link back to the vendor… So it is not necessarily something that we are paid additional charges for, but part of your contract with the larger clients. They expect that we engage in vendor workshops, quality control, and so forth.*" (Top manager 9, 2015).

Interviews with Maersk and vendors, however, also suggested that such learning and upgrading effects are tailored to and dictated by the global client. I.e. knowledge transfers are strongly linked to the lead firm. As argued by a footwear vendor, when talking about circumstances in which Maersk, as part of managing vendors, charge a penalty for delays in the vendors' supply chain. *"I understand that Maersk has to meet the requirements of their big clients and that they are a global company. But with for example smaller forwarders, we can have a bigger influence. We can call them directly if we are delayed with cargo or have urgency and arrange over the phone…I think the global client control both Maersk and us.*" (Client vendor 4, 2006). Maersk validated this statement, saying, "*We do add value to the vendor, but at the end of the day, we are both serving our final client…But the vendors are also our customers, and we see them as potential clients. We try to help them whenever they have issues.*" (Top manager 4, 2003).

Country and company specificities shaping Maesk's role

Above, suggestions were made regarding mechanisms through which Maersk influenced export performance in Vietnam. Clearly, however, it would be premature to assume such causes to be universal for shipping and logistics FDI. Hence, FDI impacts are generated and shaped in the dynamic interface between firm and location specificities.

How does Vietnam's locational specificities shape Maersk's role in export performance?

Since the 1990s, Vietnam exhibited astonishing and sustained high growth rates. Besides the Doi Moi enactment—that promoted foreign investments, removed state monopoly on foreign trade and eased restrictions on private sector involvement in trade etc.—an important explanation for Vietnam's fast paced growth is its integration into a number of international trade agreements (World Bank 2016). This has made Vietnam one of the most trade-oriented countries in the world and brought about liberalization of industrial- and service sectors (incl. shipping and logistics), and a massive inflow of FDI and promotion of exports (World Bank 2016).

Maersk's role in the early stage of Vietnam's export path

Vietnam's early growth in exports focused on a rapid expansion of garments and footwear (by the middle of 1995 these accounted for a larger share of exports), diversification of and high growth in agricultural exports including marine products, expansion of handicrafts export and wooden products, and exports of electronic equipment at the end of the 1990s (Van Arkadie et al. 2003). At this stage of development, the study suggests that Maersk played an important role by catering for the rapid surge in volumes,

meeting foreign investors' request for high quality trade logistics services, and provided differentiated services to meet the needs of Vietnam's increasingly more diversified export sector. Thus, from basic connectivity and services, Maersk expanded its network and organization, and brought in the logistics business (offering integrated services), expanding its liner shipping network (increasing feeder capacity, coverage, and frequency, and offering direct access), and investing in a deep seaport facility and logistics hubs. Thus, in other words Maersk paved the way for foreign investors to enter Vietnam. These findings were validated by clients that emphasize Maersk's competitive advantages in its flexibility to scale volumes rapidly, while also focusing on differentiated products and high-quality services that accommodate specialized processes of foreign investors and global retailers.

At this early stage of development, Vietnam in its transition to a market economy faced significant market failures such as a lack of information and market transparency, low vendor capabilities and capacities, weak institutional development and high institutional uncertainty and lack of a regulatory framework, etc. (World Bank 2016). Foreign investors were unfamiliar with the market and Vietnamese suppliers had limited experience with operating in a market economy and knowledge of the preferences of foreign firms and markets. The study suggests that Maersk played an important role at this stage of development in bridging this 'psychic distance'. Maersk facilitated links between buyers and sellers and bridged information asymmetries particularly for their global key client segments.

Maersk's role in the later stages of Vietnam's export path

The study, however, also indicates that the role of Maersk has changed as foreign investors and Vietnamese firms gained market experience, acquired new knowledge and technologies, and 'psychic distance' between sellers and buyers has decreased (Manager 26 & 28, 2015), as suggested by a manager of Maersk, *"I don't think we do that to the same extent anymore. The Vietnamese market is growing, and most big players have already moved to Vietnam…it is always easier to expand sourcing when you know the market. So, providing information on vendors is mainly for the clients that have not moved to Vietnam, where they ask us for more leads, but it doesn't happen so much anymore. The market is probably also a bit easier now, more open even though government regulation is still a challenge, but still deemed relatively easy to start production in."* (Manager 26, 2015). Discussing the changing value proposition of Maersk, one manager also stated, *"Our role in development evolves with maturity. China is today so mature that we do not need to educate vendors in how to do packaging and performance quality controls,* etc. *It is only natural that clients in China says: 'it is only a matter of how we can do it as cheap as possible—we might as well use a Chinese firm, they understand packaging, they understand compliance, so the benchmark has moved."* (Top manager 9, 2015).

How do Maersk's ownership-specific advantages shape export performance?

It could be argued that any MNC would cause the impact on export performance described in the previous section. In this section, it will be examined if a link between Maersk's O-advantages and impacts can be detected. Especially three specificities of

Maersk's O-advantages are emphasized, its global coverage, its integrated services, and its financial strengths:

Global coverage

The specificities of Maersk's internationalization and diversification strategy was a recurrent theme in the interviews and referred to as one of Maersk's ownership-specific advantages. Maersk opted for a strategy of a truly global network and organization that services the major and minor ports around the world, supported by its own concurrently local and global organization with own employees at origin and destination. As argued by a manager, *"We are the only truly global shipping line. There are no other lines to my knowledge that basically cover the entire world. We do cover the entire world"* (Top manager 2, 2003). Although other major shipping lines have expanded and internationalized during the study's timeframe, the degree of coverage differed. By 2015, Maersk remained the most global shipping company in the world out of only a handful 'truly global' shipping companies (Prockl et al. 2013; Ducruet and Notteboom 2012; Gadhia et al. 2011). In contrast to the internationalization strategy of other shipping companies, Maersk's expanded globally and in Vietnam through a strategy of management and equity investment ownership control. *"We are best at partnering with ourselves…if the legal framework require that we have a local partner, we of course adhere to that and find a local partner with knowledge and influence that we think we can get along with in the long run….But I am saying…we are not good at partnering with anyone"* (Top manager 1, 2003). This is supported by other literature that find that Maersk by 2013 had the lowest ratio of agents, in comparison to own offices globally (19.5% versus an industry average of 46.5%, based on the top 20 carriers) (Prockl et al. 2013). A global footwear retailer explicitly said, *"We need a global player that can support us wherever we go…Maersk has the financial background to invest globally…and the willingness to grow with us…Maersk and APL are the strongest providers. Other carriers do not have the logistics dimension or only on a small scale…Maersk has the capacity, the visibility, and the global coverage."* (Client 13, 2006).

Integrated services

In addition, Maersk integrated into logistics to higher degree than other shipping lines. By 2015, Maersk ranked as the top carrier of three in terms of integration into logistics and the ability to provide comprehensive global logistics services (Baird 2015). Even though business units operate as autonomous entities, there was a high coordination and interdependence between these to enhance profits, ensure smooth operations and high service quality for especially global key clients. Such coordination and interdependence were observed both for larger strategic decisions (such as when placing investments in ports and warehouses) and more operationally.

Maersk possesd competitive advantages in their route network connecting all strategic ports in Vietnam via its own owned top reliable feeder and mother vessel network with high level of control in feeder network design and reliability, and with high frequency of calls and the largest equipment pool in the country (Maersk commercial data, 2015). Maersk's high control of its feeder network meant that they could enjoy o-advantages regarding product differentiation. "*Vietnam is a bit different. Vietnam is still mainly*

served by feeders, which are not shared. This means that we can still make adjustments to the product… when we understand the client's business, and work on a product to match this. This is primarily something we do for smaller markets, where there is more flexibility on the product." (Manager 23, 2015). Such customer-centric solutions enhanced the firm's export competitiveness, but they also involved a trade-off between customer segmentation and operating costs—the greater the customer segmentation, the greater the network complexity and the costs (Ducruet and Notteboom 2015).

In sum, vertical integration and high ownership control across the organization and parts of the chain allow for a number of internalization advantages to the benefit of both shippers and Maersk, e.g. a highly connected network involving full integration of operations and smooth connections across transport modes and routes (Prockl et al. 2013; Ducruet and Notteboom 2012; Notteboom and Rodrigue 2008), and the ability to fulfill a larger share of the customers' demand for logistics services (Heaver 2002).

It should be noted that Maersk's vertical integration and integration of services also allow for internationalization advantages in the form of a larger organization that enjoys more bargaining power and opportunities for monopolistic advantages. This was especially vivid at the early stages of development in Vietnam, when competition was less intense, and Maersk dominated certain trade corridors. Hummels et al. (2009) discuss the trade-reducing effects of market power in international shipping, a topic especially relevant to international shipping due to the significance of minimum efficient scales and issues related to cartel and conferences on densely concentrated routes (Hummel et al. 2009). While the study indicated that Maersk have been able to set the terms of the market including prices at the early stages of development, the study also clearly demonstrated that Maersk's advantages have narrowed over time and competitors have reduced the gap in market share to Maersk.

Financial capabilities

Maersk's diversification into complementing activities has allowed the company to tap into various growth and profit potentials across the industry, providing o-advantages in terms of easier access to finance Maersk (Top manager 5, 2006; Manager 8, 2006). As suggested by a manager of Maersk, *"As a corporate company, A.P Moller-Maersk has a solid financial background. With the size of our container business, our profitable oil activities, the supermarkets,* etc*., we are highly solvent. Our diversification and size allow us to make investments and self-finance a number of initiatives that benefit our customers, us, and the society at large. Of course, that give us some advantages."* (Manager 8, 2006). It has allowed Maersk to self-finance global infrastructure investments and the expansion of its organization and network. Subsequently, it made Maersk one of the largest private foreign investors in container transport infrastructure worldwide (UNCTAD 2008). With Maersk's recent divestment from oil and other complementing activities, its o-advantages regarding access to finance may have changed.

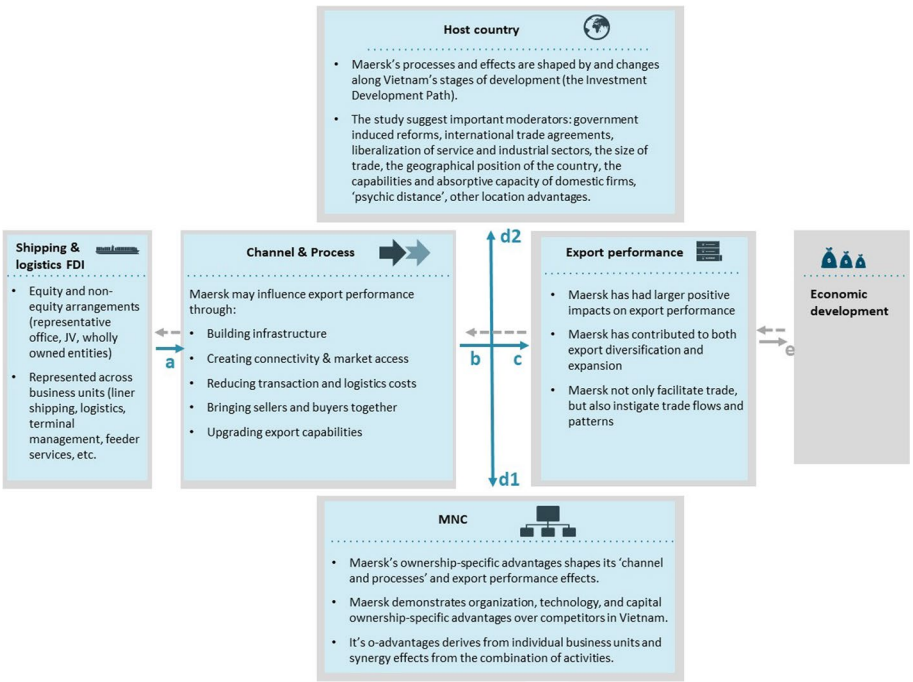

Fig. 3 Analytical framework with findings

Summary of findings and contribution

Empirical findings

As can be seen from Fig. 3, the study provided novel insights into the mechanisms through which Maersk impacted Vietnam's export performance. The impacts are on both the volume and composition of trade, and the mechanisms are the channels and process through which Maersk affected export performance. The mechanisms were demonstrated to be conditioned by the specific ownership advantages of Maersk as well as Vietnam's stage of export-oriented economic development, and the interaction of those two.

Overall, the study demonstrates that Maersk holds an intermediary, strategic and integral role in clients' global value chains, and not only responds to 'derived demand', but in some ways also instigates trade and affects trade flows and patterns. While e.g., re-routing or expansion of the container fleet and warehouses may be undertaken in close symbiosis with clients, other investments such as APM Terminals investment in container ports are based on longer term projections of macroeconomic trends and undertaken in partnership with governments rather than following specific client requirements. Moreover, the study demonstrates that Maersk especially for its logistics business is highly integrated into their clients' value chains, engaged in long term and strategic partnerships involving organizational and IT integration and often also a high degree of asset-specificity (client dedicated infrastructure and processes). Thus, Maersk is integral to such firms' value creation and competitiveness—which not only involves freight integration, but also increasingly the functional and geographical integration of fragmented and dispersed global value chains. Moreover, the case of Maersk in Vietnam shows that

foreign infrastructure investors such as Maersk play an important role in collaboration with governments in building the infrastructural location advantages that allows such countries to attract foreign investors as amongst other stipulated in the investment development path theory (Narula and Dunning 2010). Hence, in the case of Maersk in Vietnam, Maersk created *first* access, making the first connections to foreign markets, and opening up export opportunities.

While the study suggests that Maersk, via its firm specific advantages, played an important role in opening export opportunities in Vietnam, the study also acknowledges that FDI and MNCs are not exclusively proactive movers and shapers. Thus, while the study indicates that Maersk has instilled and caused change to Vietnam's export performance in the confinements of the context, it also finds that Maersk itself is the effect of a larger 'phenomenon'—Vietnam's astonishing development trajectory. In the context of this study, Maersk has evidently benefitted greatly from major changes in the Vietnamese economy. Such developments amongst other count Vietnam's government induced reform program and integration into various trade agreements that opened up the economy to foreign investors and brought about liberalization of industrial and service sectors. It involves an educated, skilled, and low-cost labor force, and favorable economic and political climate for attracting FDI within light processing industries such as garments, textiles, footwear etc. Developments in the maritime and logistics sector in particular may also be attributed to the favorable geographical position of Vietnam with a long coastline in close proximity to fast growing areas with high intensity of interregional traffic (on route between China and its major markets).

Contributing to literature

By providing insights into mechanisms related to firm specificities that lead to export performance in Vietnam in 2003–16, the paper corroborates, expands, and deepens the shipping and logistics literature in various ways:

First, the study contributed to the literature by providing generalizable insights into the role of a sector that has received limited attention across mainstream trade literature, i.e., shipping and logistics, thus heeding calls from several authors to analyze and understand this sector (see e.g. Moran 2011; Rodrigue and Hesse 2006; Coe 2014; Coe et al. 2008; Harlaftis et al. 2012; Arnold et al. 2016). Moreover, by presenting findings regarding the independent role of logistics FDI in trade, the study is mirrors other literatures that focus on the increasing role of logistics in global value chains (Coe 2014; Rodrigue and Hesse 2006).

Second, the study contributed to the literature by demonstrating the importance of taking the analysis of shipping and logistics FDI impacts to the firm-level. Hence, the paper disentangled the mechanisms through which a shipping and logistics MNC may affect trade. Hence, the study complements conventional economic studies that mainly treat transport as basic auxiliary input and subservient function of production processes. By providing a dynamic, embedded analysis of FDI processes and effects related to firm specific advantages, the study complements the received literatures' prevalence of econometric modelling of aggregates of firms (for similar arguments, see Piekkari and Welch 2011; Cohen 2007; Narula and Pineli 2017).

Third, the paper validated and deepened the analytical framework, thus providing a better basis for future studies of shipping and logistics FDI's role in economic development. The framework was developed by combining theoretical insights of three main literatures, international trade, international business and global value chains. The analytical framework proved useful in generating a more holistic understanding than the typical rather reductionistic approaches that dominate the literature. This e.g., by providing multiple explanations and insights into how shipping and logistics FDI may impact on export performance occurred and the mechanisms and complex contextual conditions that shaped those impacts. The framework eventually yielded a number of propositions for the precise mechanisms and conditions through which shipping and logistics FDI may impact export performance in developing countries.

Epilogue

The dynamics and mechanisms identified may be specific to the period studied, where Maersk pursued specific strategies and interacted with a Vietnam at a particular stage of economic development. It is likely that the role of Maersk in Vietnam's export performance may have changed in recent years:

Hence, Maersk has changed strategy, partly due to new technological developments and competitive environment. In particular, three areas of recent developments in Maersk's business strategy can be emphasized. First, Maersk has reshaped their operations to strengthen freight integration focusing on the integration of container logistics and offering global one-stop-shop and supply chain end-to-end solutions (for more on Maersk's logistics integration, see e.g., Paridens and Notteboom 2022). This also involves an organizational reshaping from a conglomerate to integration into 'one company', concentrating on the maritime sector and divesting other business areas (Greve 2022). Secondly, Maersk has been investing heavily in the digitalization of the end-to-end business (see e.g., www.maersk.com; Pedersen 2022). Technological developments strengthen the automatization of processes, improve the efficiency of operations and enable better visibility to customers across the end-to-end supply chain. Third, we are seeing Maersk taking the lead on the green transition, ordering vessels that can run on alternative fuels, electrical trucks, and investing in and building partnerships to secure the supply of alternative fuels (such as green methanol), etc.

Just like Maersk's strategy and capabilities have changed since the conclusion of our field studies, Vietnam is in a completely different position in its development path and hence bargaining position vis-à-vis foreign shipping and logistics providers: Vietnam has continued to make remarkable progress. Vietnam is now well on the way to a stage 3 economy (based on the Investment Development Path (Narula and Dunning 2000)), moving towards an innovation and service-based economy. However, with an economy that has not fully matured its domestic industry yet and is still dependent on FDI (USAID 2023; Worldbank 2023). During the last decade, Vietnam has continued it's high trade growth and high base and growth of FDI with the manufacturing sector (notably textiles and electronics) still being the most attractive to foreign investors accounting for more than 60% of Vietnam's FDI in 2022 (Worldbank 2023; S&P Global 2023). Vietnam also improved it's technological

capabilities, moving into more technology intensive manufacturing (e.g. in electronics) and improved domestic innovative capacity, e.g. new industry sectors such as autos with Vietnam having it's first domestic automaker (Vinfast) (Worldbank 2023)). Hence, competitive labour costs, infrastructure investments and a trade-friendly environment are still key comparative advantages in Vietnam, but increasingly improvements in created assets and domestic innovative capacity implies that Vietnam's industries and firms have improved economies of scale and capacities, and familiar with foreign investors and their preferences. Hence, psychic distance in the market is expected to be reduced and the role of foreign shipping and logistics providers may have changed to focusing more on service price and quality, automatization and the efficiency of processes and infrastructure, etc.

These developments in both Maersk and Vietnam mean that generalizations from the study to the more recent situation must be made with caution as the overall bargaining position of Vietnam vis-à-vis foreign shipping and logistics MNCs have improved and as Maersk has moved toward even more advanced and integrated types of services. Nevertheless, these developments also reaffirm the importance of understanding the role of shipping and logistics MNCs as focal organizations in global supply chains providing increasingly advanced and technological business services in a dynamic interaction with rapidly evolving capabilities and needs of export oriented developing countries.

Conclusion

Building on an extensive longitudinal primarily qualitative analysis of Maersk in the context of Vietnam's export-led industrialization from 2003 to 2016, this study has attempted to fill some of the gaps of existing literature: First, the role of shipping and logistics FDI in economic development has so far been little advanced across mainstream literatures, in particular the Trade literature, the GVC literature and the International Business literature. This paper demonstrated that shipping and logistics not only play a residual role in development but may be crucial for economic development, here measured through export performance. The study contributed with rich empirical evidence that suggested that Maersk, a leading shipping and logistics MNC, may have played a pivotal role in opening export opportunities and contributing to Vietnam's astonishing export growth. Second, the extant literatures provide only limited understanding of the mechanisms that explain *how* shipping and logistics MNCs contribute to or hinder trade. In this regard, the paper demonstrated that shipping and logistics FDI may affect export patterns, in particular through five mechanisms: 1. Building infrastructure; 2. Creating connectivity and market access; 3. Reducing transaction and logistics costs; 4. Bringing buyers and sellers together; and 5. Upgrading export capabilities. While shipping and logistics MNCs' role in financing and promoting infrastructure and using e.g. scale and scope to reduce costs are well-known mechanisms, the paper contributed to the literature by additionally pointing out mechanisms such as value chain access, enhanced transparency, reduced trade transaction costs, and upgraded export capabilities. Third, the extant literature is weak on conceptualizing the firm level perspective on shipping and logistics FDI's contribution to economic development. The paper demonstrated, how Maersk, via its unique value proposition and capabilities,

generated distinct impacts on Vietnam's export performance, e.g. by offering global and highly integrated connectivity across transport modes and routes, and by it's vertically integrated organization and scope of service that allowed MNCs to source from Vietnam and local firms to expand exports. Overall, the paper contributed to the extant literature by validating an analytical framework that may help deepen and nuance the study of the role of shipping and logistics FDI in developing country trade. The framework partly points out the mechanisms through which shipping and logistics FDI impacts on trade performance, partly the firm and country conditions under which these impacts materialize. In this sense, the insights of this study may provide a solid and empirically corroborated analytical platform for future research.

The study may have important implications for policy makers: As demonstrated, the role of Maersk changed in the course of Vietnam's economic development process: In the early stages of Vietnam's economic development, Maersk primarily impacted via infrastructure investment and the provision of global connectivity. Later, the impact also occurred through the provision of integrated logistics and shipping services. For policy makers in developing countries, one implication of this finding could be that FDI policies should be designed to attract shipping and logistics FDI that is aligned with the country's trade ambitions at its given stage of development.

For managers, the study may also have important implications: The study suggested that Maersk's 'license-to-operate' in Vietnam was crucially linked to its ability to develop the Vietnamese economy toward better export performance. One implication of this finding could be that managers in MNCs must be able to measure and document their developmental role if they wish to obtain and maintain a 'license-to-operate'. Supporting this, Maersk has in recent years commissioned a number of studies (see e.g. Bang et al 2014) aiming to making visible this otherwise 'hidden' sector's role in export driven economic development.

Appendix: list of interviews

Interview respondents are anonymized. First by grouping these into the organization (i.e. Maersk, clients, clients' vendors, partners, subcontractors, and experts), and second by classifying Maersk respondents' managerial level using three generic classifications as defined below.

Top managers are individuals responsible for making organization-wide decisions and establishing plans and goals that affect the entire organization. Here top managers include C-suite level executives and general and assistant general area/country managers.

Managers here refer to both first-level line managers and middle managers, where first-line managers are defined as individuals that manage the work of non-managerial employees. Middle managers are defined as individuals that manage the work of first-line managers.

Employees refer to non-managerial employees.

Table 1 List of interviews

Interview code	Organization	Interview location	Year	No. of respondents	No. of interviews
Top manager 1	A.P. Moller—Maersk Asia region	Vietnam	2003	1	1
Top manager 2	Maersk Vietnam	Vietnam	2003	2	3
Top manager 3	Maersk Sealand, Vietnam	Vietnam	2003	3	9
Top manager 4	Maersk Logistics, Vietnam	Vietnam	2003	4	1
Top manager 5	Maersk South East Asia Region	Singapore	2006	5	1
Top manager 6	Maersk South East Asia Region	Singapore	2006	6	1
Top manager 7	Maersk Vietnam	Vietnam	2006	7	2
Top manager 8	APM Terminals, Vietnam	Vietnam	2006	8	1
Top manager 9	Damco	Singapore	2015	9	1
Top manager 10	Maersk Line	Vietnam	2015	10	1
Top manager 11	Damco	Vietnam	2015	11	1
Top manager 12	APM Terminals	Vietnam	2015	12	1
Top Manager 13	Maersk Group, South East Asia	Singapore	2015	13	1
Manager 1	Maersk Sealand, Vietnam	Vietnam	2003	14	1
Manager 2	Maersk Sealand, Vietnam	Vietnam	2003	15	1
Manager 3	Maersk Logistics, Vietnam	Vietnam	2003	16	4
Manager 4	Maersk Logistics, Vietnam	Vietnam	2003	17	1
Manager 5	Maersk Logistics, Vietnam	Vietnam	2003	18	1
Manager 6	Maersk Logistics, Vietnam	Vietnam	2003	19	1
Manager 7	A.P. Moller—Saigon Shipping	Vietnam	2003	20	1
Manager 8	Maersk South East Asia Region	Singapore	2006	21	1
Manager 9	Maersk South East Asia Region	Singapore	2006	22	1
Manager 10	Maersk South East Asia Region	Singapore	2006	23	1
Manager 11	Maersk South East Asia Region	Singapore	2006	24	1
Manager 12	Maersk South East Asia Region	Singapore	2006	25	1
Manager 13	Maersk Vietnam	Vietnam	2006	26	1
Manager 14	Maersk Vietnam	Vietnam	2006	27	2
Manager 15	Maersk Vietnam	Vietnam	2006	28	1
Manager 16	Maersk Vietnam	Vietnam	2006	29	1
Manager 17	Maersk Vietnam	Vietnam	2006	30	1
Manager 18	Maersk Vietnam	Vietnam	2006	31	1
Manager 19	Maersk Logistics	Vietnam	2006	32	1
Manager 20	Maersk Logistics	Vietnam	2006	33	1
Manager 21	APM Terminals, Vietnam	Vietnam	2006	34	1
Manager 22	Maersk Group, South East Asia	Singapore	2015	35	1
Manager 23	Maersk Line South East Asia	Singapore	2015	36	1
Manager 24	Maersk Line South East Asia	Singapore	2015	37	1
Manager 25	Damco, Asia Region	Singapore	2015	38	1
Manager 26	Maersk Line	Vietnam	2015	39	1
Manager 27	Maersk Line	Vietnam	2015	40	1
Manager 28	Maersk Line	Vietnam	2015	41	1
Manager 29	Maersk Line	Vietnam	2015	42	1
Manager 30	Maersk Line	Vietnam	2015	43	1
Manager 31	Maersk Line	Vietnam	2015	44	1
Manager 32	Damco	Vietnam	2015	45	1
Manager 33	Damco	Vietnam	2015	46	1
Manager 34	Damco	Vietnam	2015	47	1
Employee 1	Maersk Vietnam	Vietnam	2006	48	1

Table 1 (continued)

Interview code	Organization	Interview location	Year	No. of respondents	No. of interviews
Employee 2	Maersk Line South East Asia	Singapore	2015	49	1
Employee 3	Group	Singapore	2015	50	1
Employee 4	Maersk Line	Vietnam	2015	51	1
Employee 5	Maersk Line	Vietnam	2015	52	1
Employee 6	Maersk Line	Vietnam	2015	53	1
Employee 7	Damco	Vietnam	2015	54	1
Employee 8	Damco	Vietnam	2015	55	1
Partner 1	Joint venture partner	Vietnam	2003	56	1
Client 1	Furniture supplier	Vietnam	2003	57	1
Client 2	Seafood trader	Vietnam	2003	58	1
Client 3	Agriculture producer/trader	Vietnam	2003	59	1
Client 4	Coffee and Pepper trader	Vietnam	2003	60	1
Client 5	Coffee buyer	Vietnam	2003	61	1
Client 6	Footwear vendor	Vietnam	2003	62	1
Client 7	Furniture retailer	Vietnam	2003	63	1
Client 8	Global retailer	Vietnam	2006	64	1
Client 9	Apparel retailer	Vietnam	2006	65	1
Client 10	Coffee retailer	Vietnam	2006	66	1
Client 11	Electronics retailer	Singapore	2006	67	1
Client 11	Electronics retailer	Singapore	2006	68	0
Client 11	Electronics retailer	Singapore	2006	69	0
Client 12	Global foods and beverages retailer	Thailand (Ph.)	2006	70	1
Client 13	Global footwear and textiles retailer	Singapore	2006	71	1
Client 14	Global furniture retailer	Singapore	2006	72	1
Client 15	Global retailer	Singapore	2006	73	1
Client vendor 1	Textile vendor	Vietnam	2003	74	1
Client vendor 2	Footwear vendor	Vietnam	2003	75	1
Client vendor 3	Textile vendor	Vietnam	2003	76	1
Client vendor 4	Footwear vendor	Vietnam	2006	77	1
Maersk facility 1	Warehouse	Vietnam	2003	78	1
Maersk facility 2	Warehouse	Vietnam	2003	79	1
Maersk facility 3	Warehouse	Vietnam	2006	80	1
Subcontractor 1	Port	Vietnam	2003	81	1
Subcontractor 2	Port	Vietnam	2003	82	1
Subcontractor 3	Warehouse	Vietnam	2003	83	2
Subcontractor 4	Port	Malaysia	2006	84	1
Expert 1	USAID	Vietnam	2003	85	1
Expert 2	The World Bank in Vietnam	Vietnam	2003	86	1
Expert 3	Fullbright University	Vietnam	2015	87	1
Expert 4	Singapore-Indian Chamber of Commerce	Singapore	2015	88	1
Expert 5	National University of Singapore	Singapore	2015	89	1
Expert 6	National University of Singapore	Singapore	2015	90	1
Total				90	104

Abbreviations

CAGR Compound annual growth rate
EDI Electronic data interchange
FDI Foreign direct investment
GPN Global production network

GVC Global value chain
JV Joint venture
MNC Multinational corporations
TEU Twenty-foot equivalent units

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