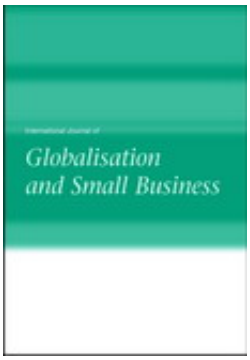

International Journal of Globalisation and Small Business

ISSN online: 1479-3067 - ISSN print: 1479-3059
https://www.inderscience.com/ijgsb

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DOI: 10.1504/IJGSB.2023.10054556

Article History:

Received:	18 March 2022
Last revised:	23 January 2023
Accepted:	23 January 2023
Published online:	17 April 2023

Inward FDI in Estonia: motivational and obstacles/inhibiting factors associated with the MNC's subsidiary export performance

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Abstract: This study investigates the main inward FDI factors, i.e., motivational factors and obstacles/inhibiting factors associated with the subsidiary's export performance in the host country, Estonia. The study is based on 89 in-depth interviews with the CEOs of subsidiaries of firms in Estonia, using a semi-structured questionnaire. The study concludes that 27 independent variables are important when studying the antecedent factors of the subsidiary's export performance. The study reveals five research streams from the literature review, namely inward FDI, outward FDI, motivational factors of FDI, obstacles/inhibiting factors of FDI, and the subsidiary's export performance. The most prominent research stream is the obstacles/inhibiting factors of FDI and both outward FDI and motivational factors of FDI are also important. Additionally, the study investigates 31 factors, of which 13 are found to be important factors based on SEM fit. In particular, six motivational factors and seven obstacles/inhibiting factors significantly influence the subsidiary's export performance.

Keywords: inward FDI; motivational factors; obstacles/inhibiting factors; MNC's subsidiary export performance; Estonia.

Reference to this paper should be made as follows: Coudounaris, D.N. and Varblane, U. (2023) 'Inward FDI in Estonia: motivational and obstacles/inhibiting factors associated with the MNC's subsidiary export performance', *Int. J. Globalisation and Small Business*, Vol. 13, No. 3, pp.315–346.

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This paper is a revised and expanded version of a paper entitled 'Inward FDI in Estonia: facilitators and inhibitors associated with the subsidiary's export performance' presented at 15th Vaasa IB Conference 2019, Vaasa, Finland, 19–21 August 2019.

1 Introduction

Foreign direct investments (FDI) in the Estonian economy have been studied by Varblane (2001a), who provided detailed analyses of the performance of foreign investors during the economic tranformation period. Estonia is nowadays a small EU country. However, FDI, i.e., inward FDI, have grown exponentially since the collapse of the Soviet Union in 1993 [Varblane, (2001b), p.2]. Moreover, in the international literature, there are studies which investigate inward FDI and its motives, for example, the studies by Gorynia et al. (2005), Bitzenis et al. (2007), Chidlow et al. (2009), Okafor et al. (2015) and Ali (2020). In addition, outward FDI has increased and fluctuated, indicating the freedom of transactions since the break-up of the ex-Soviet Union in 1993 [Varblane, (2001b), p.22]. Furthermore, in recent years, there have been studies on the typologies of exporters of SMEs (Coudounaris, 2018b), the internationalisation process of SMEs in particular exporters and non-exporters (Coudounaris, 2021), and on how wholly-owned subsidiaries move abroad (Coudounaris and Valtonen, 2021).

In the literature, there are a number of studies investigating inward FDI. For example, the following studies on inward FDI in individual countries reveal different issues on the determinants of FDI: Masso et al. (2013) for Estonia, Kalotay and Sulstarova (2013) for the Baltic Sea region, Miskinis and Reinbold (2010) for Central European and Baltic states, Bitzenis and Szamosi (2009) for Albania, Trevino and Mixon (2004) for Latin America, Glaister and Atanasova (2000) for Bulgaria, De Kort (1999) for Central and Eastern Europe, and Pavlinek (1998) for the Czech Republic.

FDI[1] usually bring indirect benefits to the host countries, namely productivity spillover effects, and direct benefits in the form of financial support to the host banking system. The research gap in existing studies in Estonia is that they have been focused on outward FDI and have ignored inward FDI.

Estonia, has changed a lot since 1995 as already discussed by Hilmola (2013) and Varblane et al. (2020) and especially in terms of inward FDI and outward FDI. Based on the available statistical indicators of Bank of Estonia (2022b), Varblane et al. (2020, Figure 1.9, p.18) and Hilmola (2013, p.251), the amount of the Estonian inward FDI is considerably bigger than the Estonian outward FDI during approximately the last three decades 1995–2022. It is worth mentioning that the outward FDI of Estonia, mainly during 31/12/2020 to 30/9/2022, directs to Lithuania, Latvia, Finland, Cyprus, and the UK (during 30/9/2021 to 30/9/2022) (Bank of Estonia, 2022b). This study assumes or is built around the concept that manufacturing is the most important FDI sector, and FDI concerns are global (though Estonia has found its position in FDI markets). However, in the last 28 years, this has completely changed, especially in Estonia. FDI has been very significant in real estate, finance, retail and construction.

Completing an empirical FDI study from a smaller European country such as Estonia will assist governments, businesses, and the scientific community to develop this subject and area further.

The research gap investigated in this study stems from Vissak (2001), who studied the impact of FDI on the host country's exports, and Gorynia et al. (2005, p.71), who studied seven cases and in their questionnaire showed that subsidiary performance could be measured by "productivity, product competitiveness, the technological advantage of products, quality of subsidiary-parent company cooperation, subsidiary profitability and subsidiary growth and expansion." The improvement of profitability over time was achieved in only one out of the seven cases examined [Gorynia et al., (2005), p.77]. The most important motives were market-seeking and cost efficiency-seeking [Gorynia et al., (2005), Appendix, p.87].

In addition, the study by Bitzenis et al. (2007) shows that in a small EMU country, namely Greece there were only marketing seekers motivations influencing inward FDI. In another study by Chidlow et al. (2009), agglomeration factors, knowledge-seeking factors and market-seeking factors are the main motives for inward FDI in Poland.

Furthermore, the study by Okafor et al. (2015), reveals that the motives for inward FDI, i.e., efficiency-seeking and strategic asset-seeking factors influenced FDI as a percentage of GDP activities in Sub-Saharan African countries for the period 1996–2010.

Moreover, another study by Ali (2020) in Ethiopia, shows that the motives are related to inward FDI instead of the subsidiary's export performance. A recent study by Driffield et al. (2021) shows that Dunning's (1993) FDI motives, i.e., market-seeking, resource-seeking, efficiency-seeking, and technology-seeking relate to outward tax haven FDI. Furthermore, tax haven FDI relates to previous levels of FDI, and a series of country level controls, namely indicators of macroeconomic performance, openness, bureaucratic quality, and country level risk, as well as sectoral controls, where the data are stratified by sector and time [Driffield et al., (2021), p.652].

In particular, the current gap links the motivational and obstacles/inhibiting factors of inward FDI with the subsidiary's export performance. This has not been investigated before in this context, though a similar gap has been investigated in the area of divestments (Coudounaris, 2017; Coudounaris et al., 2020) in a different context.

The research question of this study is as follows: what comprises inward FDI in Estonia and how do foreign companies in Estonia ascertain the facilitators and inhibitors to performance? In order to investigate this subject the following sub-objectives are setup:

a to ascertain the diachronic inward FDI to Estonia and from which leading countries the FDI flows are coming from

b to measure the impact of the motivational factors and obstacles or hindering factors to the subsidiary's export performance.

The contribution of this study lies in the fact that its conceptual model is tested for fit, and many variables used in previous FDI studies are included. In particular, the novelty of this paper is that the SEM fit is better than the confirmatory factor analysis (CFA) fit, and both motivational and obstacles/inhibiting factors are associated both positively and negatively with the subsidiary's export performance. Additionally, only six independent variables are extracted from the conceptual model as supported by the SEM fit, indicating that the subsidiary's export performance is explained by 14 motivational factors and 11 obstacles/inhibiting factors. The extracted six independent variables consist of three motivational factors, i.e., access to another foreign market (VAR06), closeness to the parent company's customers (VAR16), and following competitors (VAR17), and three obstacles/inhibiting factors, i.e., bureaucracy (VAR24), insufficient production capacity (VAR27), and cultural differences (VAR30).

The remainder of this article is organised as follows. Section 2 presents the literature review, i.e., theoretical background, motives for and obstacles to inward FDI, development of the hypotheses, motivational factors for inward FDI versus outward FDI associated with the MNC's subsidiary export performance, obstacles or hindering factors to inward FDI associated with the MNC's subsidiary export performance, and the MNC's subsidiary export performance. In Section 3, which concerns the methodology, there is a discussion of the data and the variables (independent variable and dependent variables). Section 4 shows the findings of the study, i.e., estimation and CFA fit of the model, test of hypotheses and reliability versus validity. Finally, in Section 5, we present the conclusions, implications, limitations of the study, and future research.

2 Literature review

2.1 Theoretical background

MNEs make a foreign FDI when the combined costs of operations and governance are lower for a FDI than for market or contract-based activities such as exports and licensing (Tomassen et al., 2012).

In this study, we use transaction cost theory by Williamson (1981, 1985) and OLI paradigm by Dunning (1980, 1981, 1988, 1993). The OLI paradigm attempts to explain why MNEs choose FDI rather than alternative models such as licensing, joint ventures, strategic alliances, management contracts and exporting. The OLI paradigm includes 'O' = ownership-specific factors (competitive advantage in the home market, which can be transferred abroad, for example the presence of natural resources, low-wage labour, special taxes or tarifs, and the development of infrastructure which reduces production, logistics and communication costs), 'L' = location-specific factors (specific characteristics of the foreign market which allow the firm to exploit its competitive advantage) and 'I' = internalisation factors (maintenance of its competitive position by attempting to control the entire value chain in its industry). The firm has a sustainable competitive advantage (O) which enables it to compete effectively in the foreign market. Sustainable competitive advantage can be achieved through economies of scale and scope, managerial and marketing expertise, advanced technology, financial strength, differentiated products, and a dominant position in the home market. The competitive advantage must be firm-specific, transferable, and powerful enough to compensate for the liability of foreignness. A firm should find a location where its competitive advantages can help it to generate a satisfactory return in the host market (L). The question is how to invest abroad: this can be achieved through exports, alliances, or production abroad (I). Exporting, licensing and management contracting involve no/low country risks, joint ventures, strategic alliances, and licensing with medium country risks, and wholly owned subsidiary with high country risks. The internalisation advantage implies that there must be a gain to keep the international expansion within the firm. It is not easy to write a contract with partners and to protect the assets from being copied.

The eclectic paradigm of Dunning (1993) identifies four types of FDI, i.e., resource and market seeking, efficiency seeking for host countries with plenty of natural resources, significant market size and low production cost, and strategic asset seeking for host countries with strong strategic assets such as technology and expertise.

2.2 Literature on motives for and obstacles to inward FDI

There are a substantial number of studies on the impact of inward FDI (see Table 1). The impact of inward FDI on the export performance of manufacturing firms has been studied by Buckley et al. (2002). Additionally, other studies have discussed the market access spillovers that may arise through the employment of local firms as suppliers or subcontractors to MNEs. These associations provide knowledge for locals to exploit product and process technologies and foreign market places. Local firms not only learn how to be successful in foreign markets by copy-pasting MNEs, but also MNEs can train local employees in exporting and foreign market knowledge. Furthermore, local firms acquire this knowledge when MNE employees move to local firms. There is evidence showing that foreign MNEs assist in the exporting activities of local firms (Aitken et al., 1994; Kokko et al., 1997).

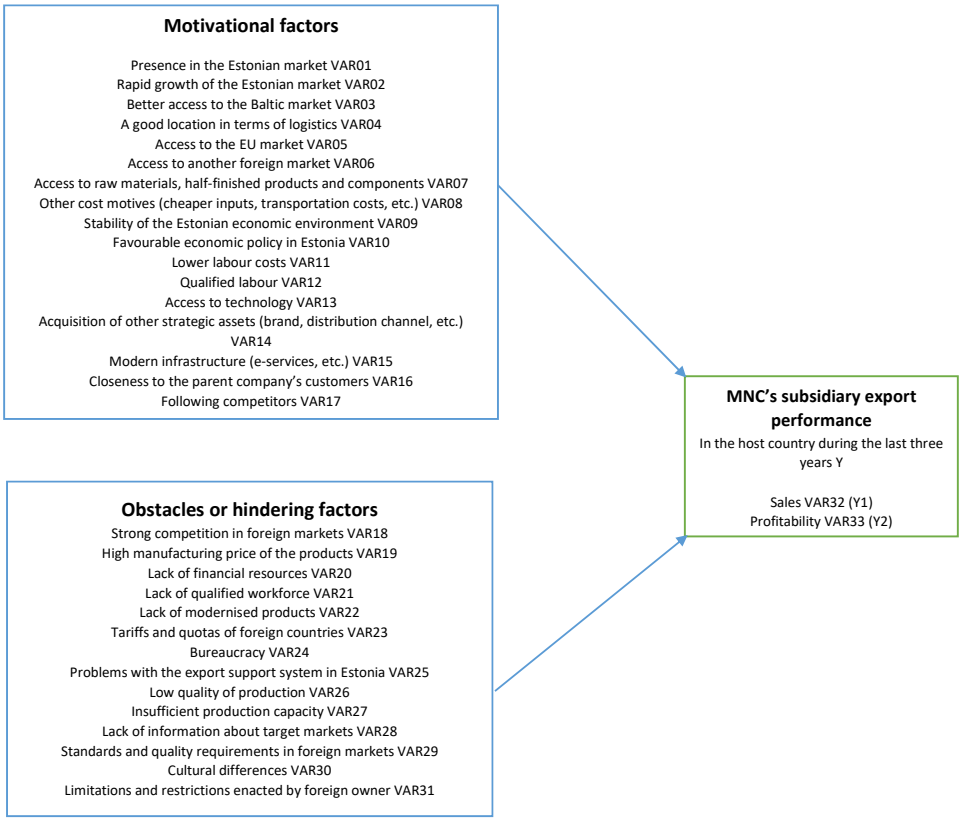
Vissak (2001) studied the impact of inward FDI on the host country's exports. In particular, the objective of her study was "to show how FDI can give to many Estonian local firms access to MNE's networks and through that the necessary information and other resources they need in order to start exporting successful" [Vissak, (2001), p.270].

Table 1 reveals five streams of research on FDI, namely inward FDI, outward FDI, motivational factors of FDI, obstacles/inhibiting factors of FDI, and the subsidiary's export performance. The first stream of research is inward FDI, including 12 studies with 29 authors, and the second stream is outward FDI, which has 21 studies with 51 authors. The third research stream is the motivational factors of FDI, with 25 studies. In particular, these 25 studies have been produced by 46 authors. According to the review paper by Nielsen et al. (2017), the fourth stream of research is the most prominent one, namely the obstacles/inhibiting factors of FDI, focused on 153 studies. In the current investigation, the fourth stream of research has ten studies with 22 authors. Finally, the fifth research stream refers to the subsidiary's export performance, with nine papers and 20 authors.

2.3 Development of hypotheses

We develop the conceptual model (see Figure 1) including three constructs, namely, the motivational factors, the obstacles or hindering factors, and the subsidiary's export performance in the host country. The model has been developed on the variables used in the outward FDI of previous studies in Estonia by Varblane et al. (2001, 2003).

Figure 1 The conceptual model of inward FDI in Estonia (see online version for colours)



Source: Compiled by the authors

Table 1 Studies investigating inward and outward FDI plus motivational and obstacles/inhibiting factors

A/A	*Authors*	*Name of publication*	*Inward FDI*	*Outward FDI*	*Motivational factors of FDI*	*Obstacles/inhibiting factors of FDI*	*MNC's subsidiary export performance*
26	Hasket et al. (2007)	*Review of Economics and Statistics*		x			
27	Forssbaeck and Oxelheim (2008)	*International Business Review*		x			
28	Cheng (2008a)	*Annals of Regional Science*		x			
29	Cheng (2008b)	*Review of Regional Studies*		x			
30	Du et al. (2008)	*Journal of Comparative Economics*		x			
31	Li et al. (2012)	*Global Strategy Journal*		x			
32	Quer et al. (2012)	*Asia Pacific Journal of Management*		x			
33	Ramasamy et al. (2012)	*Journal of World Business*		x			
34	Markusen (1984)	*Journal of International Economics*			x		
35	Helpman (1984)	*Journal of Political Economy*			x		
36	Buckley et al. (1985)	*Journal of Marketing Management*			x		
37	Brooke (1986)	Book published by Hutchinson Education			x		
38	Dunning (1993)	Book published by Addison-Wesley			x		
39	OECD (1994)	OECD report			x		
40	Paliwoda (1994)	Book published by Addison-Wesley			x		
41	Svetlicic and Rojec (1994)	*Management International Review*			x		
42	EBRD (1994)	Report on investment in CEE			x		
43	Head and Ries (1996)	*Journal of Urban Economics*			x		
44	Tatoglu and Glaister (1998)	*International Business Review*			x		
45	Narula and Dunning (2000)	*Oxford Development Studies*			x		
46	Markusen and Maskus (2002)	*Review of International Economics*			x		
47	Radosevic et al. (2003)	*Transnational Corporations*			x		
48	Deng (2004)	*Business Horizons*			x		
49	Marinova et al. (2004)	*Journal of East-West Business*			x		
50	Ali and Guo (2005)	*Journal of Global Business and Technology*			x		
51	Nachum and Zaheer (2005)	*Strategic Management Journal*			x		

Source: Compiled by the authors

Table 1 Studies investigating inward and outward FDI plus motivational and obstacles/inhibiting factors (continued)

A/A	*Authors*	*Name of publication*	*Inward FDI*	*Outward FDI*	*Motivational factors of FDI*	*Obstacles/inhibiting factors of FDI*	*MNC's subsidiary export performance*
26	Hasket et al. (2007)	*Review of Economics and Statistics*		x			
27	Forssbaeck and Oxelheim (2008)	*International Business Review*		x			
28	Cheng (2008a)	*Annals of Regional Science*		x			
29	Cheng (2008b)	*Review of Regional Studies*		x			
30	Du et al. (2008)	*Journal of Comparative Economics*		x			
31	Li et al. (2012)	*Global Strategy Journal*		x			
32	Quer et al. (2012)	*Asia Pacific Journal of Management*		x			
33	Ramasamy et al. (2012)	*Journal of World Business*		x			
34	Markusen (1984)	*Journal of International Economics*			x		
35	Helpman (1984)	*Journal of Political Economy*			x		
36	Buckley et al. (1985)	*Journal of Marketing Management*			x		
37	Brooke (1986)	Book published by Hutchinson Education			x		
38	Dunning (1993)	Book published by Addison-Wesley			x		
39	OECD (1994)	OECD report			x		
40	Paliwoda (1994)	Book published by Addison-Wesley			x		
41	Svetlicic and Rojec (1994)	*Management International Review*			x		
42	EBRD (1994)	Report on investment in CEE			x		
43	Head and Ries (1996)	*Journal of Urban Economics*			x		
44	Tatoglu and Glaister (1998)	*International Business Review*			x		
45	Narula and Dunning (2000)	*Oxford Development Studies*			x		
46	Markusen and Maskus (2002)	*Review of International Economics*			x		
47	Radosevic et al. (2003)	*Transnational Corporations*			x		
48	Deng (2004)	*Business Horizons*			x		
49	Marinova et al. (2004)	*Journal of East-West Business*			x		
50	Ali and Guo (2005)	*Journal of Global Business and Technology*			x		
51	Nachum and Zaheer (2005)	*Strategic Management Journal*			x		

Source: Compiled by the authors

Table 1 Studies investigating inward and outward FDI plus motivational and obstacles/inhibiting factors (continued)

A/A	*Authors*	*Name of publication*	*Inward FDI*	*Outward FDI*	*Motivational factors of FDI*	*Obstacles/inhibiting factors of FDI*	*MNC's subsidiary export performance*
52	Pak and Park (2005)	*Journal of World Business*			x		
53	Barrios et al. (2006)	*International Regional Science Review*			x		
54	Grossman et al. (2006)	*Journal of International Economics*			x		
55	Frynas and Mellahi (2011)	Book published by Oxford University Press			x		
56	Rogers and Wu (2012)	*Regional Science and Urban Economics*			x		
57	Franco (2013)	*International Business Review*			x		
58	Ibrahim and Abdel-Gadir (2015)	*Global Business Review*			x		
59	Zhang (2000)	*Contemporary Economic Policy*			x	x	
60	Wei and Liu (2001)	Edward Elgar, UK			x	x	
61	Ali and Guo (2005)	*Journal of Global Business and Technology*			x	x	
62	Quazi and Mahmud (2004)	*The International Journal of Business and Public Administration*			x	x	
63	Azam and Lukman (2010)	*Journal of Managerial Sciences*			x	x	
64	Ibrahim and Hassan (2012)	*The Journal of North African Studies*			x	x	
65	Varblane et al. (2020)	Book published by the University of Tartu			x	x	
66	Kinda (2010)	*World Development*				x	
67	Shahbaz and Rahman (2012)	*Global Business Review*				x	
68	Nielsen et al. (2017)	*Journal of World Business*				x	
69	Taggart (1999)	*International Business Review*					x
70	Andersson et al. (2001)	*International Business Review*					x
71	Pangarkar and Lim (2003)	*International Business Review*					x
72	Tihanyi et al. (2005)	*Journal of International Business Studies*					x
73	Short et al. (2006)	*Organizational Research Methods*					x
74	Li (1995)	*Strategic Management Journal*					x
75	Lee and Madhavan (2010)	*Journal of Management*					x
76	Coudounaris (2017)	Book chapter published by Springer					x
77	Coudounaris et al. (2020)	*Journal of Business Research*					x

Source: Compiled by the authors

2.3.1 Motivational factors for inward FDI versus outward FDI associated with the MNC's subsidiary export performance

FDI motivation has been investigated in different studies (Markusen, 1984; Helpman, 1984; Buckley et al., 1985; Brooke, 1986; Dunning, 1993; Narula and Dunning, 2000; Markusen and Maskus, 2002; Grossman et al., 2006). Buckley et al. (1985) found that when doing business in a market where a foreign firm has little prior experience, the rapid acquisition of market-related assets and capabilities can be a major factor for success/failure. Brooke (1986, p.101), when studying foreign subsidiaries at the International Business Unit of UMIST, mentioned that the following motives exist for establishing a foreign manufacturing subsidiary. These he divided into five categories, of which the initial three (categories a, b and c) are the most important, i.e., in the a category the motive was mentioned by everyone questioned or reported in every firm to which it was applicable; in the b category, the motive was mentioned in some form or other by executives in over half the firms investigated or reported, and in the c category, the motive was mentioned by executives in less than half, but more than two of the firms. In addition, Brooke (1986) divided motives into:

a defensive strategies, where a firm is operating abroad to defend its existing business

b aggressive strategies

c other pressures.

Under defensive strategies he found first, in the a category, governmental action in establishing or increasing tariff barriers, transport costs and delays, difficulties with agents and licensees; second, in the b category, the subsequent lowering of tariff barriers, difficulties with agents and licensees, and the need to go international when competitors, suppliers or customers do so; third, in the c category, legislation (at home or abroad) against monopolies or trade agreements, demands for local manufacture and other problems of nationalism in overseas markets, troubles with after-sales service and other technical difficulties abroad, the need to protect patents, the need to ensure supplies of raw materials and components, and the need to protect shareholders at home from trade recessions by a geographical spread. Regarding aggressive strategies, in the c category, the following three factors are included. First, more profitable uses for under-employed resources at home in capital and equipment and know-how; second, lower factor costs, including those for capital availability and cost, and labour; and third, more effective use of opportunities through the development of global plans and strategies for resources and markets. Concerning other pressures, the study found in the c category first, the influence of other firms, including approach to know-how, and second, the international firm, such as pressure groups advocating overseas manufacture due to the expertise and insights of members.

According to Dunning (1993), and later on Narula and Dunning (2000), there are four motives for FDI, namely natural resource-seeking, market-seeking, efficiency-seeking and strategic asset-seeking. Based on the initial three motives, an MNC will exploit assets in other countries by utilising the firm's existing capabilities. The fourth motive helps to improve the firm's capabilities through learning in foreign locations. According to Frynas and Mellahi (2011, p.155), different big firms were primarily seeking markets or a combination of seeking markets and strategic assets.

Furthermore, a study of OECD (1994) based on 162 firms investing in CEE revealed the following foreign investors' motives: access to large domestic markets, low cost production, and sources of raw materials. Four studies, namely OECD (1994), Paliwoda (1994), Svetlicic and Rojec (1994) and EBRD (1994) Report, found four main groups of motives for FDI in CEE, among which market-seeking motives were the most important. Radosevic et al. (2003, p.65) considered that the host-country advantages/motives for FDI consist of market-seeking (cheap labour, domestic market, and first-mover advantages), market/efficiency-seeking (diverse factor cost advantages, skill endowments, and local market), and efficiency (export)-seeking (predominantly export-oriented FDI, deep integration of CEE affiliates in TNC networks, and delocalisation of facilities from the EU).

In their analysis of motives for western FDI in Turkey, Tatoglu and Glaister (1998) found that the relative importance of the motives vary most with the size of the investment and industry, and vary to a moderate level with the country of origin of the investment.

Marinova et al. (2004), based on seven cases in Bulgaria, found the following market-seeking motives of the investor, the host firm and the host government: investor market-seeking motives (entering and serving local markets, protecting the investor's existing markets and expanding into third markets), host firm market-seeking motives (acquiring marketing skills and marketing management expertise, developing or acquiring new and/or high quality products/brands, seeking access to new export markets and distribution networks, and improving market position in the domestic market), host government market-seeking motives (gaining access to export markets, developing the domestic market, developing new products/brands for domestic and foreign markets, developing the distribution network, and acquiring marketing expertise).

In addition, one of the studies on US inward and outward FDI revealed that in information-intensive industries, knowledge and efficiency seeking were the most important motivations for international activity (Nachum and Zaheer, 2005). The same study revealed that in less information-intensive industries, market seeking and the search for low-cost export platforms were the main motivations for FDI.

Zhang (2000) and Wei and Liu (2001) revealed that location advantage was the main factor explaining FDI in China. Ali and Guo (2005) found that among the USA and Asian firms operating in China the large market size and low labour costs are positive factors for FDI in China. Preferential foreign investment policies, low cost of labour, increasing purchasing power, and good investment environment were factors explaining FDI in China (Yunshi and Jing, 2005). Kinda (2010) found that there was a positive relationship between the relatively cheap labour in China and FDI (inward).

Quazi and Mahmud (2004) found in South Asia (Bangladesh, India, Nepal, Pakistan and Sri Lanka) that the factors of economic freedom, degree of openness, economic prosperity, and human capital positively related to FDI, while political instability negatively related to FDI.

A study by Azam and Lukman (2010) showed that the factors of market size, external debt, domestic investment, openness and infrastructure are basic determinants of FDI in India, Indonesia and Pakistan.

Shahbaz and Rahman (2012) found that the factors of financial development, imports, and economic growth influenced FDI in Pakistan.

A study by Chidlow et al. (2009) on the determinants of inward FDI distribution in Poland revealed the following five categories of motives for investing in the Polish regions:

a geographical factors (low transportation costs, e.g., shipping, geographic conditions favourable for physical distribution and geographical distance, good quality of the local infrastructure – i.e., the quality and availability of roads and highways)

b agglomeration factors (supporting industries already existing for the supply of parts and components, a number of other firms from the same country or a number of other firms in the same industry already operating there)

c efficiency-seeking factors (the availability of labour, low labour costs, availability of raw materials at low cost)

d knowledge-seeking factors (educational level in the region, e.g., foreign languages, local universities and research centres)

e market-seeking factors (economies of scale and consumer demand).

A recent study by Franco (2013) found that among the three different asset-seeking motivations, only market-seeking motivation generates a large positive effect on exports. It is well known that in developed countries, the effect on exports from more market-oriented FDIs can be higher due to the fact that firms are able to imitate/copy-paste foreign technologies and to sustain higher competitiveness established after the MNE's investment.

A study by Ibrahim and Hassan (2013, p.1) indicated that FDI flows in Sudan are influenced by the market size, inflation rate, exchange rate and investment incentive policy. Additionally, Ibrahim and Abdel-Gadir (2015, p.936) on FDI in Oman showed that FDI flows are positively influenced by the market size and natural resources and negatively by inflation rate and degree of openness.

Furthermore, there are some studies on outward FDI and its motives. For example, Deng (2004) in a study on outward investment by Chinese MNCs, revealed that outward FDI is motivated by resource-seeking investments, technology-seeking investments, market-seeking investments, diversification-seeking investments and strategic asset-seeking investments. In addition, in two studies by Varblane (2001b, p.20) and Varblane et al. (2003, p.141), the determinants of Estonian outward FDI were market-related motives (4.8 out of 5 on a Likert scale), cost-related motives (2.9 out 5 on a Likert scale), asset acquisition (2.7 out of 5 on a Likert scale), labour costs (2.7 out of 5 on a Likert scale) and natural resources (1.2 out of 5 on a Likert scale).

H1 The motivational factors for inward FDI are positively associated with the subsidiary's export performance.

2.3.2 Obstacles or hindering factors to inward FDI associated with the MNC's subsidiary export performance

Based on 153 empirical studies, Nielsen et al. (2017) revealed 17 hypotheses regarding negative issues related to destination location, parent firm and firm-location.

Specifically, for destination location they argued that:

- the lesser the demand in a given location, the less likely this location is to be chosen as a destination for FDI by firms
- the higher the corporate tax rate in a given location, the less likely this location is to be chosen as a destination for FDI by firms
- the higher the wages in a given location, the less likely this location is to be chosen as a destination for FDI by firms
- the less advanced the infrastructure in a given location, the less likely this location is to be chosen as a destination for FDI by firms
- the less developed the formal institutions in a given location are, the less likely this location is to be chosen as a destination for FDI by firms
- that if a location is not a special economic zone, it is less likely to be chosen as a destination for FDI by firms
- the less concentration of firms in a specific industry in a particular location there is, the less likely this location is to be chosen as a destination for FDI by firms
- the less the concentration of firms in a particular location is, the less likely this location is to be chosen as a destination for FDI by firms
- the less the concentration of foreign firms in a given location is, the less likely this location will be chosen as a destination for FDI by firms
- the less the concentration of firms from a given home country in a particular location is, the less likely this location is to be chosen as a destination for FDI by firms from that home country
- if a location is not characterised as a global city, it is less likely that this location will be chosen as a destination for FDI by firms
- the higher the congestion costs in a given location are, the less likely this location is to be chosen as a destination for FDI by firms.

Additionally, for the parent firm, the stronger the intangible assets possessed by a firm, the more likely it is that unattractive locations are chosen as a destination for FDI by that firm; and the more international experience a firm has, the more likely it is that unattractive locations are chosen as a destination for FDI by that firm.

Finally, in terms of firm location, the less experience a firm has in a foreign location, the less likely this location is to be chosen as a destination for FDI by that firm; and the less the distance is between the home and host country, the less likely it is that the host country will be chosen as a destination for FDI by firms from that home country.

H2 Obstacles or hindering factors to inward FDI are negatively associated with the subsidiary's export performance.

2.3.3 MNC's subsidiary export performance

The subsidiary's export performance has been involved in many different studies, of which some indicative studies are the following: Taggart (1999), Andersson et al. (2001), Pangarkar and Lim (2003), Tihanyi et al. (2005), Short et al. (2006), Li (1995), Lee and

Madhavan (2010) and Coudounaris (2017). In particular, these studies examine the subsidiary's export performance in the context of FDI and divestiture, which is an opposite construct to FDI. In most of these cases, the subsidiary's export performance is measured by sales and profitability, which have been used in this study in addition to other measurements. For example, in one of the initial studies on subsidiary performance by Taggart (1999), the author has used overall sales growth, sales growth in new products, and market share measured on a seven-point Likert type scale, ranging from 1 = well below industry norm, to 7 = well above industry norm. In the study by Andersson et al. (2001), the organisational performance is measured by two items measured on a five-point Likert scale, namely IPU and IIVNP, where IPU means the subsidiary highly affects the placement of production units within the global division in the coming years, and IIVNP means that the subsidiary generally has a considerable influence on decisions concerning investments in new product lines. Finally, in the study by Pangarkar and Lim (2003, p.616), performance is measured by success, stability, sales growth, market share and profitability.

3 Methodology

3.1 Data

This study is focused mainly on financial and insurance activities, the wholesale and retail trade, real estate activities, manufacturing, professional, scientific, and technical activities, and information and communication. Further information about inward FDI in Estonia can be found on a web page on the Estonian Economy (Estonian Investment Agency, 2022). The questionnaire of this study was an attitudinal one like other attitudinal studies (Coudounaris, 2012a). The questionnaire asked the opinion of CEOs on six different FDI issues (motivation, activities in the foreign market and economic situation, innovation and technology, autonomy and business networks, assessment of the economic environment and government activities, and satisfaction with investment and further plans). The questionnaire mainly used a five-point Likert scale (1 = not important at all, 5 = very important) for the six FDI issues, and included some open-ended questions plus an initial section on general data about the company. The interviews took place during the period 22/9/2009 to 11/12/2009, and the interviews were supported by Enterprise Estonia in collaboration with the University of Tartu.

The FDI to Estonia during 2009 amounted to about 11,000 EUR million [see Hilmola, (2013), Figure 4, p.241] as compared to the figures issued by the Bank of Estonia (2022a) showing 33,027.1 EUR million on 30/9/2022, indicating a triple increase of FDI to Estonia from 2009 to 2022. Moreover, based on the statistical indicators of the Bank of Estonia (2022b), the main countries which contribute to FDI to Estonia are Finland, Luxembourg, Sweden, Latvia, Lithuania, the Netherlands, France and the UK. Finally, based on the statistical indicators of the Bank of Estonia (2022b), the FDI from Estonia abroad are 12,700 EUR million with main destinations Lithuania, Latvia, Finland, Cyprus and the UK.

The data we used to test the hypotheses in the conceptual model (see Figure 1) were drawn from 89 CEOs of foreign subsidiaries in Tallinn, Estonia. The method of collection of the data was through a semi-structured interview. The questionnaire was previously revised by and discussed with five academics. In addition, it was revised by

five top executives of subsidiaries. This procedure has improved the instrument's content, design, wording and understandability. In this way, completion of the questionnaire was made easier and more attractive. In order to tackle the non-response bias (Armstrong and Overton, 1977), the sample of 89 subsidiary responses was divided into two categories: the 45 subsidiary responses of CEOs that were first collected, and 44 subsidiary responses of CEOs that were collected later. T-test analysis showed that there were no significant differences between these two categories as regards the 31 independent variables. This analysis reveals that early versus late respondents do not significantly differ. Furthermore, we collected data for the dependent variable as compared to independent variables from separate sources (secondary data on sales and profitability from the Estonian Business Register versus data for the independent variables based on the study's instrument) to avoid common method biases. The questionnaire was based on UNCTAD's (1998, p.91) World Investment Report and three previous studies based on Estonian FDI [Radosevic et al., (2003), p.65; Varblane et al., (2001), p.20; (2003), p.141].

3.2 Variables

3.2.1 Dependent variable

The dependent variable is the subsidiary's export performance measured by both turnover sales (Y1) and profitability (Y2) (see Figure 1).

3.2.2 Independent variables

The independent variables used in the study's model include 25 different variables (see Figure 1).

4 Findings

4.1 Estimation and CFA fit of the model

We used AMOS 28 in order to run the CFA and to find out whether the data fits the model shown in Figure 1. In the analysis, the authors followed the various steps based on the method by Hair et al. (2014). Initially, in Step 1, our concern was to find out whether the fit of the model with the data was satisfactory or not (see Table 2). Due to relatively good measures of RMSEA, CFI and chi-square by degrees of freedom (CMIN/DF), the fit of the model was satisfactory. In particular, the first order model appeared to obtain satisfactory values within the thresholds, i.e., χ^2/df (chi-square by degrees of freedom) and RMSEA. However, the value of CFI was below the threshold of 0.7 in Step 1 and Step 2 (up to the first 15 modification indices). However, the last eight modification indices of Step 2 and the deduction of 18 items the values of CFI were above the threshold of 0.7. The values of the statistics, i.e., CMIN/DF, CFI and RMSEA were 1.985, 0.106 and 0.481, respectively (see Table 2). In the second step, the errors of the variables were correlated because there were some modification indices in the findings with high covariance (greater than M.I. = 4.000, modification indices). Having done this, the authors ran the CFA in AMOS and realised that there was an improvement of the fit

of the model. In particular, the values of χ^2/df, RMSEA and CFI statistics were improved to a satisfactory level of 1.507, 0.741 and 0.076, respectively (see Table 2).

Table 2 Estimation and fit of Model 1 in four steps for improvement of few key statistics

STEP 1: Initial estimation and fit of the model and its statistics based on initial sample of 89 participants in the survey
CMIN = 1014.339, DF = 494, P = 0.000, CMIN/DF = 2.053, CFI = 0.443, RMSEA = 0.109, PCLOSE = 0.000.
The initial solution was modified further in another six runs to achieve the unidimensional solution as follows: CMIN = 1033.277, DF = 500, P = 0.000, CMIN/DF = 2.067, CFI = 0.430, RMSEA = 0.110, PCLOSE = 0.000.
STEP 2: Improvement of the fit of the model by correlating errors (based on covariance shown at modification indices and covariance M.I., which were greater than 4.000) on the initial sample of 89 participants in the survey
The following errors of variables were forced to correlate: variable 01 to variable 02 (MI = 39.037), variable 32 to variable 33 (MI = 29.111), variable 21 to variable 22 (MI = 20.072), variable 11 to variable 10 (MI = 16.723), variable 12 to variable 08 (MI = 15.680), variable 06 to variable 05 (MI = 15.802), variable 10 to variable 09 (MI =11.707), variable 12 to variable 09 (MI = 11.105), variable 15 variable 09 (MI = 8.821), variable 08 to variable 07 (MI = 7.287), variable 03 to variable 01 (MI = 6.914), variable 26 to variable 27 (MI = 9.355), variable 25 to variable 26 (MI = 7.076), variable 22 to variable 26 (MI = 9.219), variable 03 to variable 02 (MI = 6,793), variable 26 to variable 29 (MI = 6.676), variable 20 to variable 26 (MI = 7.244), variable 19 to variable 27 (MI = 5.415), variable 29 to variable 31 (MI = 4.546), variable 07 to variable 05 (MI = 4.163), variable 07 to variable 04 (MI = 4.335), and variable 07 to variable 01 (MI = 5.780).
Estimation and fit of the model by correlating the above errors:
CMIN = 718.986, DF = 477, P = 0.000, CMIN/DF = 1.507, CFI = 0.741, RMSEA = 0.076, PCLOSE = 0.000.
STEP 3: There was a worsening of the fit of the model by deducting one case (i.e., the 74th case) from the initial sample of 89 participants – a method based on the values of Mahalanobis distance-squared (greater than 60.000). Therefore, the case remains in the analysis. CMIN = 726.8, DF = 477, P= 0.000, CMIN/DF = 1.524, GFI = 0.695.
STEP 4: Effort to improve the fit of the model by deducting 18 variables with very low loadings below 0.5 and modification indices of more than 4.000 (deduction of VAR11, VAR12,, VAR10, VAR07, VAR02, VAR09, VAR16, VAR 21, VAR29, VAR27, VAR26, VAR22, VAR18, VAR19, VAR03, VAR01, VAR17, and VAR08).
Estimation and fit of the model by deducting the above 18 variables: CMIN = 138.879, DF = 90, P = 0.001, CMIN/DF = 1.543, GFI = 0.839, NFI = 0.701, RFI = 0.651, IFI = 0.869, TLI = 0.841, CFI = 0.864, RMSEA = 0.079, LO90 = 0.051, HI90 = 0.103, PCLOSE = 0.043, ECVI = 2.260, HOELTER (0.05) = 72, HOELTER (0.01) = 79

Source: Compiled by the authors

In addition, in Step 3, we deducted one case from the initial sample of 89 (i.e., the 74th case) that had high value of Mahalanobis distance-squared (greater than 60.000, i.e., 60.953). The deduction of this case resulted in the worsening of the three statistics of the fit of the model. Therefore, the case remains in the analysis. Specifically, the value of χ^2/df worsened to 1.524 (see Table 2).

Furthermore, in Step 4, we deducted 18 variables, i.e., VAR11, VAR12, VAR10, VAR07, VAR02, VAR09, VAR16, VAR 21, VAR29, VAR27, VAR26, VAR22, VAR18, VAR19, VAR03, VAR01, VAR17, and VAR08).

In particular, the extraction of the first variable VAR11 reveals additional improvement of the above three statistics and PCLOSE, i.e., 1.465, 0.764, 0.073 and 0.000. In addition, the extraction of the other 17 variables reveals respectively following values of CMIN/DF, CFI, RMSEA and PCLOSE: VAR12: 1.467, 0.763, 0.073 and 0.002; VAR10: 1.473, 0.763, 0.073 and 0.003; VAR07: 1.455, 0.772, 0.072 and 0.006; VAR02: 1.504, 0.747, 0.076 and 0.000; VAR09: 1.532, 0.746, 0.078 and 0.001; VAR16: 1.516, 0.763, 0.077 and 0.003; VAR21: 1.550, 0.753, 0.079 and 0.001; VAR29: 1.605, 0.742, 0.083 and 0.001; VAR27: 1.628, 0.741, 0.084 and 0.000; VAR26: 1.614, 0.742, 0.084 and 0.000; VAR22: 1.553, 0.773, 0.079 and 0.006; VAR18: 1.606, 0.773, 0.083 and 0.000; VAR19: 1.585, 0.797, 0.082 and 0.007; VAR03: 1.587, 0.800, 0.082 and 0.009; VAR01: 1.504, 0.841, 0.076 and 0.040; VAR17: 1.458, 0.871, 0.072 and 0.082; and VAR08: 1.543, 0.864, 0.079 and 0.043.

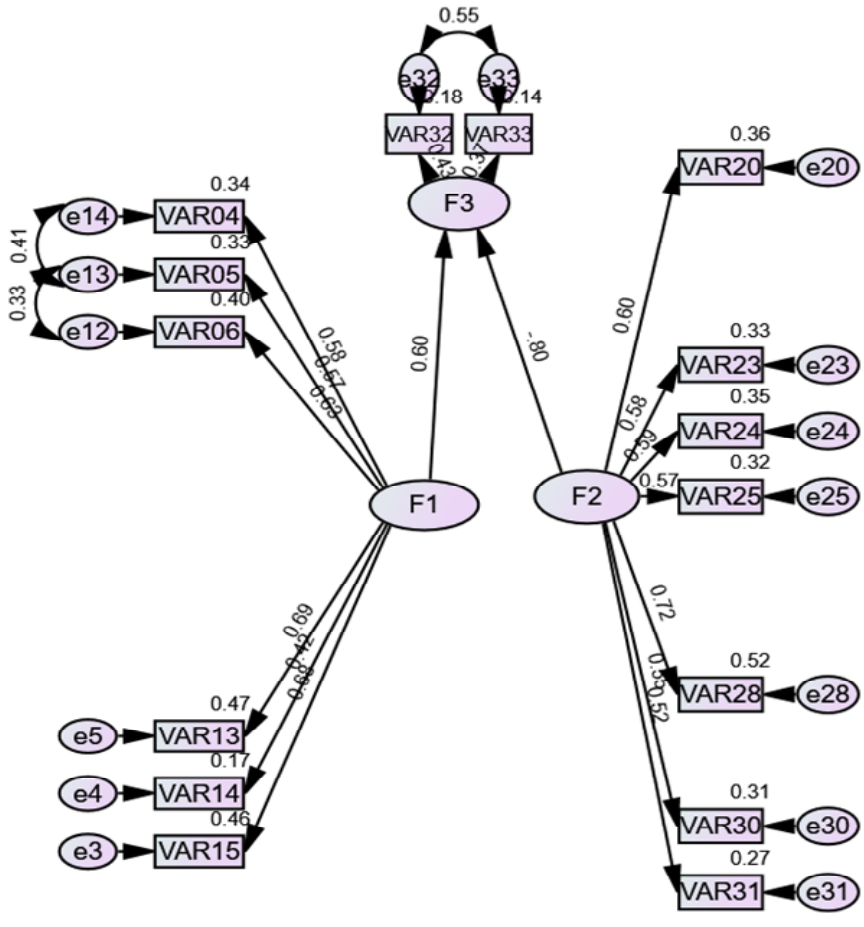
Besides the above discussion, the values of the correlations of the sample of 89 indicate that all values were below the threshold of 0.7, showing that there was no multicollinearity problem.

Table 3 Goodness-of-fit of the SEM model

Model	*NPAR*	*CMIN*	*DF*	*P*	*CMIN/DF*
Default model	30	138.879	90	0.001	1.543
Model	RMR	GFI	AGFI	PGFI	
Default model	0.124	0.839	0.786	0.629	
Model	NFI Delta1	RFI rho1	IFI Delta2	TLI rho2	CFI
Default model	0.701	0.651	0.869	0.841	0.864
Model	PRATIO	PNFI	PCFI		
Default model	0.857	0.600	0.740		
Model	NCP	LO 90	HI 90		
Default model	48.879	720.917	84.790		
Model	FMIN	F0	LO 90	HI 90	
Default model	1.578	0.555	0.238	0.964	
Model	RMSEA	LO 90	HI 90	PCLOSE	
Default model	0.079	0.051	0.103	0.043	
Model	AIC	BCC	BIC	CAIC	
Default model	198.879	212.213	273.538	303.538	
Model	ECVI	LO 90	HI 90	MECVI	
Default model	2.260	1.942	2.668	2.412	
Model	HOELTER 0.05	HOELTER 0.01			
Default model	72	79			

Source: Compiled by the authors

Figure 2 Graph of the structural model* (see online version for colours)



Notes: *F1 = motivational factors, F2 = obstacles or inhibiting factors and F3 = subsidiary's export performance.

M = motivational factors, O = obstacles or inhibiting factors and P = subsidiary's export performance.
Motivational factors: VAR04 = good location in terms of logistics, VAR05 = access to the EU market, VAR06 = access to another foreign market, VAR13 = access to technology, VAR14 = acquisition of other strategic assets (brand, distribution channel, etc.) and VAR15 = modern infrastructure (e-services, etc.).
Obstacles or hindering factors: VAR20 = lack of financial resources, VAR23 = tariffs and quotas of foreign countries, VAR24 = bureaucracy, VAR25 = problems with the export support system in Estonia, VAR28 = lack of information about target markets, VAR30 = cultural differences, and VAR31 = limitations and restrictions enacted by the foreign owner.
MNC's subsidiary export performance in the host country (Estonia):
VAR32 = Y1 = sales and VAR33 = Y2 = profitability.

Source: Compiled by the authors

Consequently, the authors decided to apply the 89 cases as the removal of the one case caused a non-worsening of the three statistics (see Step 3 in Table 2). In addition, the authors tried to remove 18 variables from the model that had low loadings (standardised

regression weights) below 0.5, but the outcomes of AMOS were better for the 17 variables. Therefore, the removal of these variables produced improvement for most of the statistics χ^2/df, CFI and RMSEA.

Bearing in mind the EFA results and the above procedure, the authors decided to run all the analyses of this paper based on the 89 cases of the sample and 27 variables.

Additionally, the authors made a SEM analysis graph, which is shown in Figure 2. The graph indicates that 6 items out of 17 (see Figure 1) are important motivational factors. At the same time, 7 items out of 14 are also important obstacles or inhibiting factors (see Figure 1). In total, 13 factors out of 31 included in the conceptual model (see Figure 1) are significant. Finally, the dependent variable, namely the subsidiary's export performance, includes two sub-variables, i.e., sales and profitability in the host country (Estonia).

Figure 2 shows that twelve factors, consisting of five motivational factors and seven obstacles or hindering factors have impact values above 0.5 (only one motivational factor VAR14 has impact value less than 0.5). These twelve factors are as follows: good location in terms of logistics, access to the EU market, access to another foreign market, access to technology, acquisition of other strategic assets (brand, distribution channel, etc.) modern infrastructure (e-services, etc.), lack of financial resources, tariffs and quotas of foreign countries, bureaucracy, problems with the export support system in Estonia, lack of information about target markets, cultural differences, and limitations and restrictions enacted by the foreign owner.

Furthermore, Figure 2 shows that the obstacles negatively influence the MNC's subsidiary export performance while the motives positively influence the MNC's subsidiary export performance.

Table 3 shows the goodness-of-fit statistics of the model, which is based on SEM analysis. A comparison of Table 2 and Table 3 shows that $\Delta\chi^2$ between CFA (measurement model) and SEM model equals 1,014.339 – 138.879 = 875.460 with Δdf = 404. Since $\Delta\chi^2$ is 875.460, which is larger than 3.84 [Hair et al., (2014), p.588], the researchers would conclude that the alternative model, i.e., the SEM model, was a significantly better fit [Hair et al., (2014), p.660].

4.2 Test of hypotheses

Based on the sample of 89 CEOs, which had the best statistics related to the goodness-of-fit of the model, a SEM analysis was applied to find out whether different relationships of the model were significant (see Table 3). According to the SEM analysis, in Table 4, we present the standardised path coefficients of the latent variables and their standard errors, critical ratio (CR), and p-values and status of each relationship.

In Table 4, we test the following two hypotheses:

H1 The motivational factors positively impact the subsidiary's export performance.

H2 The obstacles or hindering factors positively impact the subsidiary's export performance.

Table 4 shows that the relationship between motivational factors and subsidiary's export performance is positive, and significant. The first hypothesis (H1) is supported. Furthermore, Table 4 shows that the relationship between obstacles/inhibiting factors and subsidiary's export performance is negative and significant. Therefore, the second hypothesis (H2) is not supported.

Table 4 Test of hypotheses*

Relationship	*Estimate*	*S.E.*	*C.R.*	*P*	*Status*
F1 to F3 (H1)	0.604	0.180	2.305	0.021	Supported
F2 to F3 (H2)	–0.797	0.237	–3.015	0.003	Non-supported

Notes*: F1 = motivational factors, F2 = obstacles or inhibiting factors and F3 = subsidiary's export performance.

Source: Compiled by the authors

4.3 Reliability and validity

The construct reliabilities and the AVE for all three constructs are calculated using the structural model (see Table 5). The three constructs of the structural model had variable construct reliabilities, i.e., motivational factors = 0.594, obstacles or inhibiting factors = 0.589, and subsidiary's export performance = 0.399. The average construct reliability was very low, i.e., 0.527 which is below the critical value of 0.7.

Based on SPSS 28, the estimates of the Cronbach's alpha of the three constructs revealed high reliabilities (motivational factors = 0.801, obstacles or inhibiting factors = 0.766, and subsidiary's export performance = 0.761). These estimates suggested a satisfactory degree of reliability, as the mean construct reliability estimate based on Cronbach's alpha was 0.776, which was well above the critical value of 0.7.

To assess convergent validity, we performed the following two tasks. Initially, the loading estimates (i.e., the standardised regression weights of 12 items) were above 0.5 except for one item below 0.5 (i.e. VAR14 = 0.416), showing satisfactory convergent validity. Given that only one item had a value of the loadings above 0.7, we concluded that there was a non-convergent validity.

Finally, the calculation of the AVE from all three constructs did not exceed 50%, and thus, the structural model indicated a non-discriminant validity. In particular, the AVE for the three constructs was below 50% (motivational factors = 36.13%, obstacles or inhibiting factors = 35.10%, and subsidiary's export performance = 16.0%), and the MAVE of all constructs was 29.08%. Since all the three constructs have mean AVE = 0.291, and as the MAVE of all constructs = 0.291 < 0.5, the discriminant validity criterion of AVE > 0.5 introduced by Fornell and Larcker (1981) is not satisfied.

Fornell and Larcker's (1981) criterion indicates that discriminant validity is established when the following assumption is satisfied: $AVE\xi\ j > maxr^2ij\ \forall\ i \neq j$ [Henseler et al., (2015), p.117]. However, this test was performed in our data (see Table 5 above), and the Table 5 shows that the discriminant validity criterion of 0.5 was not achieved. In addition, based on construct reliability (CR), the reliability of the variables of the model was found poor, because the CR of the subsidiary's export performance was below 0.5 i.e. 0.399. It is worth noting that the average construct reliability (ACR) of the three constructs of the model was 0.527.

Table 5 Completely standardised factor loadings, average variance extracted and estimates of reliability of constructs (N = 89)*

Items	*Constructs*			*Item reliability Li*	*(Li)²*	$\frac{\sum(Li)^2}{n}$	*Eigen-values*	*Delta = δ= 1-item reliabilities*
	F1	*F2*	*F3*					
VAR04	0.581			0.581	0.337561			0.419
VAR05	0.572			0.572	0.327184			0.428
VAR06	0.629			0.629	0.395641			0.371
VAR13	0.689			0.689	0.474721			0.311
VAR14	0.416			0.416	0.173056			0.584
VAR15	0.678			0.678	0.459684	0.36130783	3.565	0.322
VAR20		0.599		0.599	0.358801			0.401
VAR23		0.578		0.578	0.334084			0.422
VAR24		0.589		0.589	0.346921			0.411
VAR25		0.568		0.568	0.322624			0.432
VAR28		0.722		0.722	0.521284			0.278
VAR30		0.553		0.553	0.305809			0.447
VAR31		0.517		0.517	0.267289	0.35097314	4.126	0.483
VAR32			0.427	0.427	0.182329			0.573
VAR33			0.371	0.371	0.137641	0.159985	0.798	0.629
Average variance extracted %	36.13	35.10	16.00	MAVE = 29.08				
Construct reliability	0.594	0.589	0.399	ACR = 0.527				

Notes: *The following formulae are used for calculating AVE and CR of the constructs:
AVE is computed as the total of all squared standardised factor loadings (squared multiple correlations) divided by the number of items [Hair et al., (2019), p.676]

or $\text{AVE} = \sum(\text{standardised regression weights})^2 / \text{n}$ or $\text{AVE} = \sum(\lambda\text{i})^2 / \text{n}$.

$$\text{CR} = \left(\sum \text{of standardised regression weights}\right)^2 / \left[\left(\sum \text{of standardised regression weights}\right)^2 + \left(\sum \delta\right)\right]$$ or

$$\text{CR} = \left(\sum \lambda\text{i}\right)^2 \Big/ \left[\left(\sum \lambda\text{i}\right)^2 + \left(\sum \delta\right)\right].$$

Mean AVE = mean average variance extracted and ACR = average construct reliability.
Constructs: F1 = motivational factors, F2 = obstacles or inhibiting factors and F3 = subsidiary's export performance.

Source: Compiled by the authors

Based on SPSS, the estimates of Cronbach's α of the three constructs revealed high reliability (motivational factors = 0.801, obstacles or inhibiting factors = 0.766 and subsidiary's export performance = 0.761). These estimates suggest a satisfactory degree of reliability, as the mean construct reliability estimate based on Cronbach's α was 0.776, which was well above the critical value of 0.7.

Additionally, we tested the hypothesised relationships between the constructs by estimating the structural model using the maximum likelihood technique. The results indicated that the IFI, TLI and CFI had high values, as expected. The final estimates of the various statistics indicate that the SEM model had a satisfactory fit with the data (Table 3).

Finally, Appendix reveals that only eight variables of the total of 33 have mean values above the median of 3 on the Likert scale measured from 1 to 5. Therefore, 25 variables have mean values below the median of 3 of the Likert Scale. Regarding the standard deviations, the majority of eight variables have values below 1, whereas 25 variables have values above 1. According to Hair et al. (2014, p.34), when skewness values fall outside the range of –1 to +1, then this indicates a substantially skewed distribution. This is the case for eight variables, i.e., VAR06, VAR18, VAR23, VAR24, VAR25, VAR26, VAR29 and VAR31. The remaining 25 variables are not skewed.

Kurtosis is a measure of the peakedness or flatness of distribution when compared with a normal distribution. Positive values indicate that 16 variables have relatively peaked distribution, whereas 17 variables have negative values, indicating a relatively flat distribution [Hair et al., (2014), p.33]. Only seven variables, i.e., VAR01, VAR07, VAR16, VAR24, VAR25, VAR26 and VAR31, have kurtosis values outside the range of –1 to +1.

Additionally, Appendix reveals that the same variables, i.e., VAR24, VAR25, VAR26, and VAR31, show skewness and kurtosis at the same time, with the exception of variables VAR07 and VAR16, which indicate kurtosis but not skewness.

5 Conclusions, implications, limitations and future research

5.1 Conclusions

The current literature review in this paper reveals four research streams, namely inward FDI, outward FDI, motivational factors of FDI and obstacles/inhibiting factors of FDI. The most important research stream is the cluster of obstacles/inhibiting factors of FDI, which includes at least 153 studies found in another study by Nielsen et al. (2017). At the same time, this study reveals (see Table 1) that important research streams are both outward FDI and motivational factors of FDI.

Based on the SEM analysis model, there are 33 variables considered from previous studies in Estonia (Varblane et al., 2001, 2003). Twenty-five independent variables out of 31 are found to be important in this study, as only six independent variables are considered problematic, i.e., three motivational factors, namely access to another foreign market (VAR06), closeness to the parent company's customers (VAR16), and following competitors (VAR17), as well as three obstacles or inhibiting factors, namely bureaucracy (VAR24), insufficient production capacity (VAR27) and cultural differences (VAR30). As the percentage of the six deducted variables from the model is 18.18%, which is below 20%, this supports minor changes in the model.

Based on the study of subsidiaries in Estonia, Figure 2 reveals that at least ten factors have impact of more than 0.5, as follows: access to the EU market, access to raw materials, half-finished products and components, other cost motives (cheaper inputs, transportation costs, etc.), modern infrastructure (e-services, etc.), lack of financial resources, lack of modernised products, problems with the export support system in

Estonia, low quality of production, lack of information about target markets, and limitations and restrictions enacted by the foreign owner.

There is evidence from Appendix that the factor of modern infrastructure (e-services, etc.) has high mean value of above three, while access to the EU market, access to another foreign market, access to raw materials, half-finished products and components, and other cost motives (cheaper inputs, transportation costs, etc.) have mean values of above two. In addition, lack of financial resources, lack of modernised products, problems with the export support system in Estonia, low quality of production, lack of information about target markets, and limitations and restrictions enacted by the foreign owner have mean values of less than two.

Furthermore, the following three variables, i.e., stability of the Estonian economic environment (VAR09), favourable economic policy in Estonia (VAR10), and strong competition in foreign markets (VAR18), have mean values close to four, showing that managers of subsidiaries in Estonia should consider these factors as important for the Estonian environment.

5.2 Implications, limitations and future research

Regarding managerial implications, top management of subsidiaries in the host country, i.e., Estonia, should bear in mind the findings of this study. For example, CEOs or top managers of subsidiaries in Estonia should find out about different programmes introduced by the Estonian authorities related to inward/outward FDI, e.g., tax benefits or subsidies for investing in the country. Additionally, the Estonian governmental authorities should think of developing programmes to promote motivating factors related to inward FDI, and at the same time minimise or eliminate the obstacles/hindering factors to inward FDI. In addition, the governmental authorities should encourage outward FDI.

One of the limitations of the study is that it has not taken into account other factors that have been mentioned in recent literature in different countries. Another limitation is the small sample of 89 participant CEOs or top managers.

In addition, there is the limitation of lack of convergent validity of the constructs, which should be addressed in future studies. In particular, the construct of the subsidiary's export performance should consist of a number of items which the existing literature uses to measure the subsidiariy's export performance [Morgan et al., (2004), p.104; Gorynia et al., (2005), p.71; Coudounaris, (2011), p.344; (2012b), Table 5, p.263]. Furthermore, more recently collected data should be used in testing the fit of the model in Estonia and in other small EU countries.

In terms of future research, there is a need for further research in Estonia to ascertain the FDI decisions made after COVID-19 (Coudounaris, 2022, Figure 2). Recently, there has been a study by Varblane et al. (2020, pp.97–98) which tested the longitudinal findings and revealed that the motives of foreign companies operating in Estonia have changed significantly compared to a previous study. For example, the stability of the economic environment, access to technology and a skilled workforce have become most important for companies. In particular, the shortage of labour has become a major challenge for foreign companies. Regarding obstacles, the companies highlight economic policies, for example tax policies. The amount of limiting factors such as lack of qualified labour and application for work and residence permits has increased. Furthermore, the level of competitive advantage has decreased, together with the technological level of

foreign companies, and there is a need for them to modernise their technological level. As both motivational factors and obstacles or inhibiting factors are changing in Estonia, future research should investigate once again the relationships between motives and subsidiary's export performance and between obstacles and subsidiary's export performance. It is worth noting that there is a peculiarity related to the statistical indicators provided by the Bank of Estonia (2022b). The data reveal that foreign investor companies from Germany exited from FDI in Estonia during the period 30/6/2021 to 30/9/2022, and therefore researchers should investigate whether this is a temporary tendency or phenomenon and what the major reasons are for foreign investors from Germany to exit from FDI in Estonia.

It is important for public policy makers in Estonia to enhance the motivational factors and to reduce the obstacles to FDI in order to achieve higher export performance of the subsidiary. In addition, future research should be performed on the factors that influence the subsidiary's export performance for inward versus outward FDI. Similar research should be carried out in other Central East European countries and in smaller countries of the European Union, namely Cyprus, Malta, Latvia and Lithuania. In addition, Hungary and Slovakia (Torrisi, 2015), as well as Greece (Bitzenis et al., 2007) could be possibly investigated in terms of inward versus outward FDI. Finally, a meta-analysis should be performed on inward FDI related to Dunning's (1993) FDI motives following the method of meta-analysis used in other papers (Coudounaris, 2017, 2018a; Coudounaris et al., 2020). Moreover, content analysis (Coudounaris et al., 2009; Leonidou et al., 2010) and a systematic literature review (Coudounaris and Arvidsson, 2019, 2022) could also bring some interesting and different insights on inward versus outward FDI for smaller EU countries.

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Notes

1 *Note* on the definition of FDI: According to Varblane et al. (2020, p.97), "foreign direct investment (FDI) is defined as the establishment of a company located in another country or obtaining of a significant part of its ownership (at least 10% of the share capital) by a foreign resident. Foreign direct investments are made for a variety of reasons, such as reaching new target markets, seeking a lower-cost operating environment, and creating access to raw materials or strategic assets in the destination country. The host country benefits directly from the inflow of capital, technology and knowledge, but indirect benefits are equally important, i.e. knowledge and technology transfer to local downstream clients."

Appendix

Descriptive statistics

	Mean		*Std. deviation*	*Skewness*		*Kurtosis*	
	Statistic	*Std. error*	*Statistic*	*Statistic*	*Std. error*	*Statistic*	*Std. error*
Motivational factors (independent variables)							
VAR01 = presence in the Estonian market	3.180	0.155	1.466	–0.186	.255	–1.336	0.506
VAR02 = rapid growth of the Estonian market	2.820	0.132	1.248	0.098	0.255	–0.975	0.506
VAR03 = better access to the Baltic market	2.832	0.136	1.281	0.091	0.255	–0.932	0.506
VAR04 = a good location in terms of logistics	3.236	0.135	1.270	–0.185	0.255	–0.928	0.506
VAR05 = access to the EU market	2.169	0.132	1.245	0.900	0.255	–0.238	0.506
VAR06 = access to another foreign market	2.079	0.125	1.180	1.119	0.255	0.494	0.506
VAR07 = access to raw materials, half-finished products and components	2.663	0.144	1.356	0.136	0.255	–1.107	0.506
VAR08 = other cost motives (cheaper inputs, transportation costs, etc.)	2.944	0.120	1.132	–0.128	0.255	–0.441	0.506
VAR09 = stability of the Estonian economic environment	3.899	0.096	.905	–0.737	0.255	0.403	0.506
VAR10 = favourable economic policy in Estonia	3.899	0.107	1.012	–0.871	0.255	0.309	0.506
VAR11 = lower labour costs	3.607	0.108	1.018	–0.462	0.255	–0.386	0.506
VAR12 = qualified labour	3.090	0.119	1.125	–0.180	0.255	–0.408	0.506
VAR13 = access to technology	2.146	0.121	1.144	0.779	0.255	–0.149	0.506
VAR14 = acquisition of other strategic assets (brand, distribution channel, etc.)	2.303	0.138	1.300	0.778	0.255	–0.537	0.506
VAR15 = modern infrastructure (e-services, etc.)	3.090	0.120	1.135	–0.084	0.255	–0.519	0.506
VAR16 = closeness to the parent company's customers	2.652	0.138	1.306	0.051	0.255	–1.135	0.506
VAR17 = following competitors	2.629	0.126	1.191	0.181	0.255	–0.639	0.506

Source: Compiled by the authors

Descriptive statistics (continued)

	Mean		*Std. deviation*	*Skewness*		*Kurtosis*	
	Statistic	*Std. error*	*Statistic*	*Statistic*	*Std. error*	*Statistic*	*Std. error*
Obstacles or hindering factors (independent variables)							
VAR18 = strong competition in foreign markets	3.854	0.110	1.040	–1.004	0.255	0.562	0.506
VAR19 = high manufacturing price of the products	2.865	0.103	0.968	0.122	0.255	0.339	0.506
VAR20 = lack of financial resources	1.955	0.097	0.916	0.907	0.255	0.212	0.506
VAR21 = lack of qualified workforce	2.303	0.109	1.027	0.773	0.255	0.150	0.506
VAR22 = lack of modernised products	1.978	0.085	0.797	0.728	0.255	0.466	0.506
VAR23 = tariffs and quotas of foreign countries	2.090	0.120	1.135	1.109	0.255	0.407	0.506
VAR24 = bureaucracy	2.157	0.108	1.021	1.182	0.255	1.458	0.506
VAR25 = problems with the export support system in Estonia	1.966	0.108	1.016	1.331	0.255	1.804	0.506
VAR26 = low quality of production	1.798	0.083	0.786	1.238	0.255	2.709	0.506
VAR27 = insufficient production capacity	2.011	0.095	0.898	0.844	0.255	0.645	0.506
VAR28 = lack of information about target markets	1.955	0.076	0.722	0.625	0.255	0.712	0.506
VAR29 = standards and quality requirements in foreign markets	2.214	0.117	1.102	1.021	0.255	0.496	0.506
VAR30 = cultural differences	2.281	0.105	0.988	0.633	0.255	–0.293	0.506
VAR31 = limitations and restrictions enacted by the foreign owner	1.944	0.118	1.112	1.535	0.255	1.898	0.506
MNC's subsidiary export performance in the host country (Estonia) (dependent variable)							
VAR32 = sales	3.663	0.125	1.177	–0.551	0.255	–0.800	0.506
VAR33 = profitability	3.157	0.128	1.205	–0.310	0.255	–0.911	0.506

Source: Compiled by the authors