

## MICRO-ENTERPRISES AS EXPORTERS IN NORTHERN SPARSELY POPULATED AREAS

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### Abstract:

The majority of the total value of exports comes from small, medium-sized, and large companies for the reason that they tend to be the principal target group in public-support actions related to exports. However, micro-sized enterprises are the numerically dominant group in every economy. During recent years, micro-enterprises' barriers for exports have lowered due to global digitalization. As a result, micro-enterprises' share of total exports has increased rapidly in many countries.

The aim of this explorative case study was to investigate micro-enterprises' share of exporters in one northern sparsely populated area (NSPA). The micro-enterprises located in NSPAs tend to face context-specific challenges as they develop their business. This study seeks to provide context-specific knowledge needed to strengthen business ecosystems and develop business support services. The data in this study consists of publicly archived statistical data from 2015 of all active business identity codes registered in Northern Finland (49,411 pieces) were analysed.

Based on this study, in total, 585 exporting enterprises are located in Northern Finland, of which almost 52% are micro-enterprises (302 pcs). In addition, the variation of micro-enterprises' share of exporting enterprises at provincial, subregional and municipal levels is clarified. It is necessary to have micro-enterprises as a target group of export support actions. This study is limited to official enterprise statistics from 2015. The results of this study can motivate policy makers and public business service providers to consider micro-enterprises to be an essential target group of export support actions.

*Keywords: micro-enterprises, export, sparsely populated area, statistics*

## 1. INTRODUCTION

Exporting is an important factor of economic growth, and export promotion is one of the most important parts of many countries' commercial policy. Many European countries have experienced trade deficits in recent years that have caused growing concern about the effectiveness of national export-promotion programs (Coudounaris 2012). The smaller the enterprise is, the more it needs government export promotion programs mainly due to having fewer resources and capabilities than larger enterprises (Leonidou, 2011). Smaller enterprises also benefit more from public support concerning internationalisation (Falk, Murphy, Siedschlag, Hagsten, Sass, Szalavets, Vessel, and Mirza, 2014, p. 185).

It is widely accepted that enterprise size is positively related to export intensity, but it is also argued that small enterprises may succeed in international markets despite having a shortage of internal specialized resources. Smaller enterprises have better flexibility to enter and exit foreign markets several times. Small enterprises are often a part of a system of firms and, in that way, can access external resources (Bonaccorsi, 1992).

Micro-enterprises export less than larger enterprises because they have less resources in terms of finance, knowledge, and managerial experience (Falk et al., 2014, p. 100). Larger companies have more

positive attitudes toward exporting due to better resources and capabilities and the ability to manage the risks involved in internationalization (Köksal, 2009). Micro-enterprises are also less aware of export-promotion programs (Kumcu et al., 2005; Köksal, 2009; Coudounaris, 2012).

The majority of the total value of exports comes from small, medium-sized, and large companies because they tend to be the principal target group in the public-support actions related to exports. Micro-enterprises' export participation is, however, underestimated because indirect export activities are usually not counted. Many small firms export indirectly by supplying parts or final goods to a larger or multinational firm that sells the product on a foreign market (Wagner, 2001).

Micro-enterprises are the numerically dominant group in every economy. According to the The Organisation for Economic Co-operation and Development (OECD, 2016, p. 34) report, in all analysed countries, between 70% and 95% of all enterprises are micro-sized, and a very large share of micro-enterprises are non-employer enterprises. However, in Finland, almost 49% of all new jobs in enterprises (between 2001 and 2014) were in micro-enterprises (Statistics Finland, 2017a). Presently, it is widely understood that micro-enterprises have significant potential to be drivers of job creation, growth, and innovation.

During recent years, micro-enterprises' barriers for export have lowered due to global digitalization. Currently, European exporters are more likely to sell online than through any other channel. Exporters' use of online sales channels is constantly increasing. As a result, micro-enterprises' share of total exports has increased rapidly in many countries.

The enterprise-specific determinants of exporting differ between small and medium-sized enterprises (SMEs) and micro-enterprises (Falk et al., 2014, p. 103). According to Grigoryan (2011), assuming that all enterprises at the same stage of internationalization require the same assistance could be erroneous. Policy makers should design export-promotion programs to cater to the specific needs of different exporter groups by taking into account their unique requisites (Leounidou, 2011).

In Europe, several databases exist regarding exports which differ widely with respect to coverage of countries, micro-enterprises, one-person businesses, industry, and definition of exports (Falk et al., 2014, pp. 39, 44). Analysing export data by enterprise size classes from different countries may help to reveal export barriers, especially for smaller enterprises (OECD, 2016, p. 114).

In 2013, micro-enterprises' share of exporters in the Baltic Sea countries shown in Table 1 varied between 33.8% (Germany) and 70.0% (Estonia). In Finland, the corresponding share is 63.1%.

**Table 1:** Micro-enterprises' share of exporters in Baltic Sea countries

	2011	2012	2013
Estonia	62.8%	73.5%	70.0%
Sweden	68.0%	67.3%	69.1%
Latvia	64.0%	63.0%	64.8%
Finland	63.9%	64.2%	63.1%
Poland	62.4%	57.0%	57.1%
Denmark	65.9%	55.0%	55.2%
Germany	38.6%	36.3%	33.8%

Source: OECD, 2017

Micro-enterprises' share of export value in Baltic Sea countries is presented in Table 2. In 2013, the share of export value varied between 3.3% (Finland) and 21.5% (Estonia). Comparing the years 2008 and 2013, a clear increase of the share in Estonia, Latvia, and Sweden can be seen, whereas in Denmark, Germany (2009–2013), and Finland, a clear decline is apparent. In Poland, the share has remained quite the same. The fact that export statistics also contain enterprises of which the size is not known and that they are probably smaller enterprises on the basis of small average trade values must be considered (OECD, 2016, p. 114).

**Table 2:** Micro-enterprises' share of export value in Baltic Sea countries

	2008	2009	2010	2011	2012	2013
Estonia	12.7%	12.6%	13.9%	12.8%	14.9%	21.5%
Latvia	9.9%	11.9%	13.2%	14.3%	14.8%	17.3%
Sweden	6.2%	6.9%	12.6%	10.6%	10.7%	10.9%
Denmark	17.5%	16.9%	16.7%	17.5%	5.7%	6.4%
Poland	4.9%	4.7%	4.8%	4.3%	4.7%	4.8%
Germany		5.9%	6.3%	6.7%	3.8%	3.6%
Finland	7.6%	7.3%	3.4%	2.9%	3.1%	3.3%

Source: OECD, 2017

Northern sparsely populated areas (NSPAs) faced the impact of major global trends, such as climate change and its impact on people, demographic change, and rapid economic and environmental changes due to large-scale industrial projects. Entrepreneurship in these areas faces operational challenges, such as obtaining financing by start-up companies and long distances from support facilities. This is similar to problems companies on the periphery have: a small customer base, long distances to market, and a generally poor business environment. Also, micro-sized companies commonly lack experience or traditions of cooperation with enterprises outside of the local area (Clement, 2014).

Challenges in the availability of finance are highlighted in NSPAs. Remoteness creates extra costs and challenges for communications, logistics, and transportation in addition to increasing manufacturing costs and longer workforce commutes. Low population density may also limit the available skilled labour and employment options in general.

The research question of this study is as follows: "What is micro-enterprises' share of exporters in one NSPA based on the statistical data from public archives?"

The aim of this study is to investigate micro-enterprises' share of exporters in one NSPA. The micro-enterprises located in NSPAs tend to face context-specific challenges as they develop their businesses. This study seeks to provide context-specific knowledge needed to strengthen business ecosystems and develop business support services. In this study focused on public archives, the statistical data from 2015 of all active business identity codes registered in Northern Finland (49,411 pieces) were analysed.

The present study is composed of four sections. In the introduction, the background, motivation, research problem, and research question are presented. In the second section, the method undertaken in this study is described. In the third section, the description and analysis of the data garnered from the statistical analysis are undertaken; these findings are then examined in light of the research question. In the final section, a discussion of the main results and opportunities for further research are presented.

## 2. METHODOLOGY

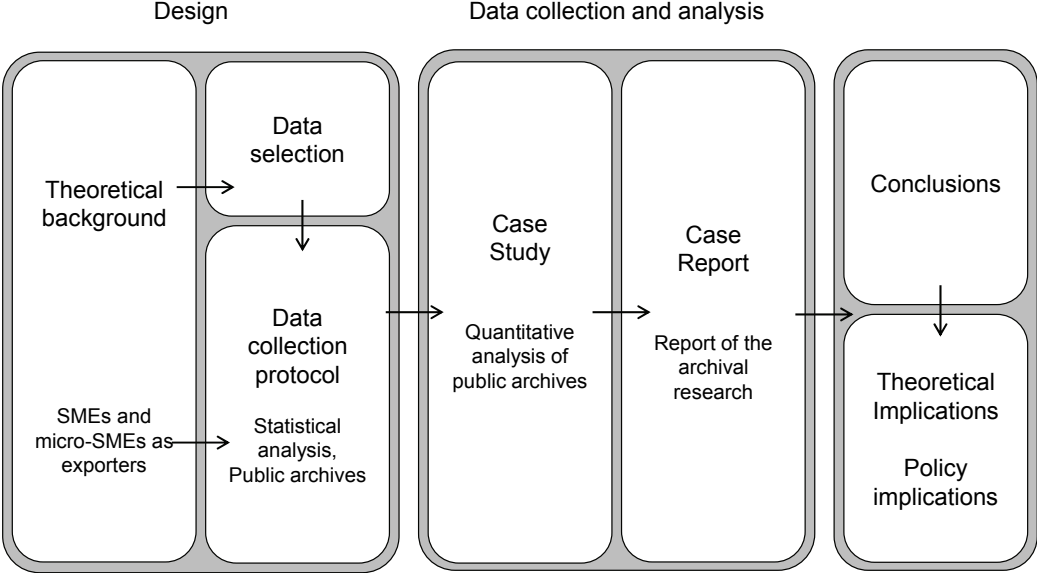
The aim of this cross-sectional single case study (e.g., see Yin, 1989; Saunders, Lewis, & Thornhill, 2012) was to investigate micro-enterprises' role as exporters in one NSPA.

In this study, according to European Union (EU) recommendation 2003/361 (European Commission, 2003), a micro-enterprise is defined as an enterprise with fewer than 10 employees that has an annual turnover or balance-sheet total not exceeding EUR 2 million and conforms to the criterion of independence as defined below. Independent enterprises are those of which 25% or more of the capital or voting rights are not owned by one enterprise or jointly by several enterprises, falling outside of the definition of an SME or a small enterprise, whichever may apply. In the EU, this new definition came into force on January 1, 2005 (OECD, 2005).

Exports of goods and services consist of transactions in goods and services (sales, barter, gifts, or grants) from residents to non-residents. An export enterprise is defined as an enterprise of which the export threshold value is EUR 12,000 and has trading transactions at least two months per year or the value of trading exceeds EUR 120,000 (in which case, one trading transaction is sufficient in the year concerned). The data were obtained from the National Board of Customs (Statistics Finland, 2017b).

According to Yin (1989), “A case study is an empirical inquiry that: investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used” (p. 23). Picture 1 presents the research process:

**Picture 1:** The research process of the study



The data collected for this study consists of public archive statistical data from 2015 of all active business identity codes registered in Northern Finland (49,411 pieces) that were analysed. Statistical data were purchased from Bisnode Finland, Ltd. The data (collected October 27, 2015) consists of 49,411 business identity codes registered in Northern Finland. A closer analysis includes the business identity codes of the companies that had key information (industrial classification, number of personnel, sales) in the statistical data. The final data contains 47,519 business identity codes.

**3. RESULTS**

Northern Finland (picture 2) consists of three provinces (Kainuu, Lapland, and North Ostrobothnia) in which there are a total of 15 subregions. The subregions contain a total of 30 municipalities. The total population of the area is approximately 666,000 inhabitants (12.1% of the Finnish population), and the region covers an area of 150,000 km<sup>2</sup> (49.3% of the area of Finland). The largest city in the area is Oulu, with approximately 200,000 inhabitants. Human health and social-work activities comprise 19.1%, industry 11.9%, and wholesale and retail trade 10.2% of the jobs in the area. In Northern Finland, 49,411 enterprises are in operation; the majority (95.8%) are micro-enterprises with less than 10 employees. The majority of the micro-enterprises (95.5%) employ less than five individuals. The share of SMEs in Northern Finland is 99.94%. Only a few large companies (250 or more employees) exist in North Ostrobothnia (0.06%). The most common category (25.5%) of activity (SIC, 2008) is forestry and logging (SIC 02). Approximately 82% of the companies have less than EUR 200,000 in sales per year. Approximately 2.9% of the companies have an over two-million-Euros turnover. In the area, 1,724 import companies and 585 export companies are located. The average age of the companies in Northern Finland is approximately 11.5 years. The most common forms of Northern Finland business are private traders (60.1% of companies) and limited companies (30.7%).

The aim of this study was to investigate micro-enterprises’ share of exporters in one NSPA. In this study focused on public archives, the statistical data from 2015 of all active business identity codes registered in Northern Finland (49,411 pcs) were analysed.

**Picture 2:** Location of provinces in North Finland

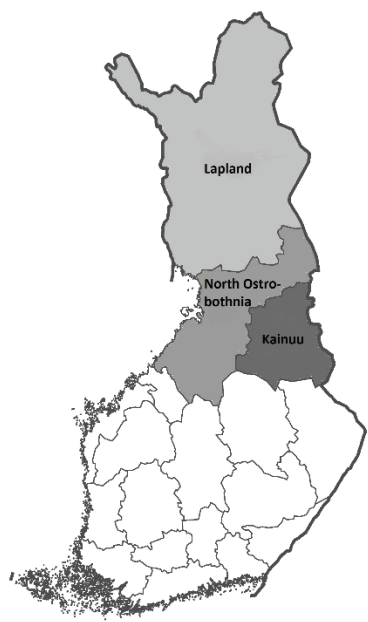


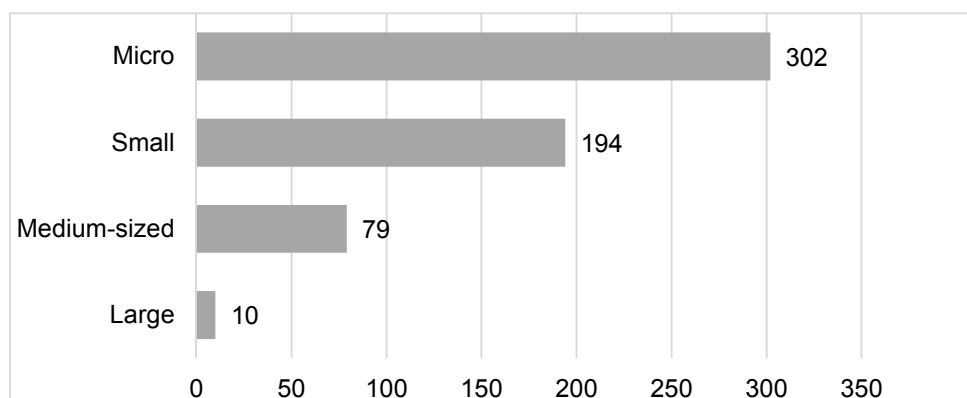
Table 3 presents the size classes and turnover of enterprises in 2015 in North Finland. In Northern Finland, almost 96% (45,532 pcs) of companies are micro-enterprises with less than 10 employees. Approximately 82% (39,056 pcs) of the companies have less than EUR 200,000 in sales per year. Almost 43% of the companies with a turnover of one million Euros are micro-sized enterprises, and 24.4% of the companies with over two million Euros in turnover are micro-enterprises.

**Table 3:** The size classes and turnover of enterprises in 2015 in North Finland

	Below 0.2 million euros	0.2–1 million euros	1–10 million euros	Over 10 million euros	In total
Micro-enterprises	38,977	5,540	989	26	45,532
Small	72	332	1232	95	1,731
Medium-sized	5	3	103	117	228
Large	2	0	0	26	28
In total	39,056	5,875	2,324	264	47,519

Based on this study, in total, 585 exporting enterprises are located in Northern Finland. Picture 3 shows the number of exporters by enterprise size classes. Almost 52% of exporters (302 pcs) are micro-enterprises. There are more exporters in micro-enterprises than in small, medium-sized, and large enterprises altogether.

**Picture 3:** The number of exporters by enterprise size classes in North Finland in 2015



As can be seen from picture 4, only 0.7% of micro-enterprises (302 pcs of 45,532) in North Finland are exporters, whereas more than a third of both medium-sized enterprises (79 pcs of 228) and large enterprises (10 pcs of 28) are exporters. A bit more than a tenth (11.2%) of small enterprises (194 pcs of 1,731) are exporters.

**Picture 4:** The share of exporters of enterprises in each size class in North Finland in 2015

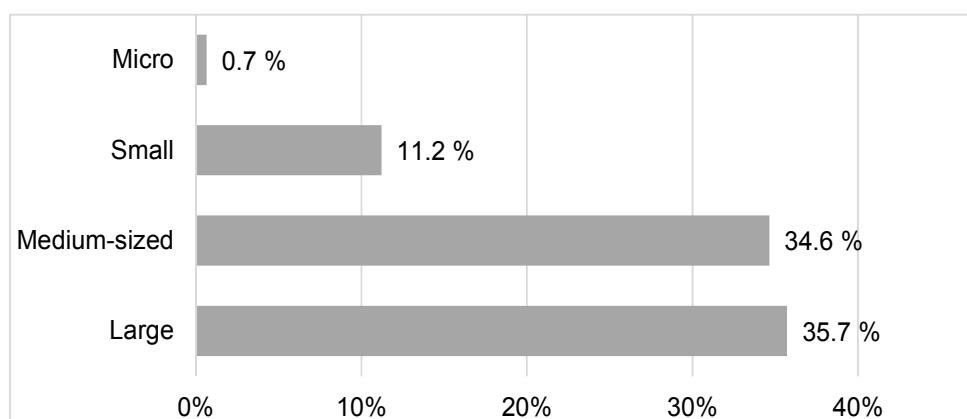


Table 4 shows basic information about the variation of micro-enterprises' share of exporters at the provincial, subregional, and municipal levels in North Finland. At the provincial level, the micro-enterprises' share of exporters varies between 42.6% and 64.9%. At the subregional level, the variation is much larger: from 14.3% to 81.8%. In North Finland, both municipalities with no micro-sized exporters and municipalities in which all exporters are micro-enterprises exist. In the biggest municipality, Oulu, 48.0% of the exporters are micro-sized.

**Table 4:** Provincial, subregional, and municipal variations in the share of exporting micro-enterprises in Northern Finland

	Lowest	Highest	Average
<b>Micro-enterprises' share of exporters in</b>			
• The whole of North Finland			51.6%
• Provincial level (n=3)	42.6% (138 pcs of 324)	64.9% (146 pcs of 225)	
• Subregional level (n=15)	14.3% (1 pcs of 7)	81.8% (9 pcs of 11)	
• Municipal level (n=59)	0.0%	100.0% (3 pcs of 3)	
• Biggest municipality = Oulu			48.0%
Exporting micro-enterprises per 1,000 enterprises			

• The whole of North Finland			6.36
• Provincial level (n=3)	3.20	9.82	
• Subregional level (n=15)	0.50	26.71	
• Municipal level (n=59)	0.00	54.26	
• Biggest municipality = Oulu			6.48
Exporting micro-enterprises per 1,000 inhabitants			
• The whole of North Finland			0.45
• Provincial level (n=3)	0.24	0.81	
• Subregional level (n=15)	0.04	3.16	
• Municipal level (n=59)	0.00	5.60	
• Biggest municipality = Oulu			0.77

Table 4 shows also the amount of exporting micro-enterprises per 1,000 enterprises and per 1,000 inhabitants. At the provincial level, the amount of exporting micro-enterprises per 1,000 enterprises varies between 3.20 and 9.82 and per 1,000 inhabitants between 0.24 and 0.81. At the subregional level, the variation is larger and much larger at the municipal level. In some subregions and municipalities there is much more exporting micro-enterprises per 1,000 enterprises and per 1,000 inhabitants that is the average of North Finland.

#### 4. DISCUSSION

More than half of the exporters in North Finland are micro-enterprises. The actual share is even larger because most likely, the major part of the enterprises of which the export value remains below threshold values are micro-enterprises. A good example of the potential that exists in micro-enterprises in Northern Finland is the fact (see table 5) that more than 96% of the enterprises that do not export are micro-sized. Due to the large number of non-exporting micro-enterprises, further efforts should be made to increase their export participation.

**Table 5:** The amount of exporting and non-exporting enterprises in 2015 in North Finland

	Exporting enterprises,		Non-exporting enterprises,	
	pcs	%	pcs	%
Micro-enterprises	302	51.6%	45,230	96.4%
Small	194	33.2%	1,537	3.3%
Medium-sized	79	13.5%	149	0.3%
Large	10	1.7%	18	0.0%
In total	585	100.0%	46,934	100%

In Finland, exports are promoted even at the municipal level. Due to the huge variation in micro-enterprises' share of exporters at the municipal and subregional level, it is clear that in practice, a different combination of export-promotion actions is needed in each area. This is a clear challenge to the organization of export-promotion actions. Additionally, the variation in the amount of exporters per 1,000 enterprises and per 1,000 inhabitants both at the municipal and subregional levels is so great that for each actor, it might be necessary to check if the priorities of the export-promotion policies are in place.

Micro-enterprises' share of exporters in North Finland (51.6%; 2015) is clearly smaller than in Finland (63.1%; 2013) on average (Table 1). In only one province in North Finland, micro-enterprises' share of exporters (64.9%) exceeds the average of Finland. Thus, also at the provincial level, it might be worth checking the priorities of the export-promotion policies, especially because enterprises in NSPAs face context-specific challenges as they develop their businesses due to limited resources, remoteness, and long distances.

There is a clear need to develop micro-enterprises' targeted export-promotion services. Based on this study, it is necessary to have micro-enterprises as the essential target group for enhancing export activities.

In future studies, it would be interesting to analyse how exporting micro-enterprises differ from larger exporting enterprises and non-exporting micro-enterprises according to statistical data from public archives. Moreover, the context of NSPAs should be studied further using the exact location data of such logistical nodes that are important to exports.

## 5. ACKNOWLEDGEMENTS

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