



Finnish Exports to East Asia

Challenges Arising from the War in Ukraine

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Abstract:

This Bachelor thesis is about the impact that freight forwarding companies are experiencing on exports to East Asia because of the start of the war in Ukraine. The aim of the study is to find what are the solutions that freight forwarding companies operating in Finland have found to overcome the changes that would allow their clients to ship goods to East Asia after EU and other western countries have implemented sanctions to Russia which, as a countermeasure, closed its airspace and territory for EU companies. The study considers air, rail, and road freight only, and not ocean freight. The theory part is about international trade in general, with a particular attention on exports, and the importance of trade for Finnish companies to East Asian countries and the data of exports. The method chosen for the study is qualitative research method in the form of semi-structured interviews to freight forwarding professionals working for companies operating in Finland. Through the conduction of interviews, the author has found out that the major issues that freight forwarding companies are experiencing on exports to East Asia relate to the restrictions in Russian airspace and territory, the increase of costs and the necessity of rerouting their shipments to bypass the restricted areas and finding new service providers. Given its geographic position, and needing to avoid the Russian territory, Finland has been affected substantially for the consequences of the war and by the sanctions implemented on both sides. The way of transport that has had the biggest impact is rail freight and moderately the air freight. Freight forwarders have dealt with changes and found solutions that have softened the impact of restrictions thanks to the possibilities that alternative routes and diverse ways of transports offered, and thanks to their skills and competences gained in both normal situations and in dealing with previous crisis.

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1 INTRODUCTION

International trade is a key factor in a country's economy and involves selling goods to foreign countries (exports) and buying goods from foreign countries (imports). Exports offer a country's producers and manufacturers new opportunities to sell their products and expand their markets all over the globe. In general, countries trade because companies use their expertise to produce and manufacture goods that are demanded in other countries. Both exporters and importers benefit from international trade, it is a win-win situation. (Peng & Meyer, 2017). Exports to Asian countries are an important and profitable part of Finnish international trade. According to Tulli, or Finnish Customs' statistics (Tulli, 2022), the most important markets for Finnish exports in 2021 were western countries, and especially European ones with the 72 percent of Finnish exports, and Asian markets accounting for around the 12.5 percent of Finnish export. China is the biggest Asian importer of Finnish goods with the 5.3 percent of the share, Japan follows with the 2.3 percent of the share and South Korea totals the 1.1 percent of Finnish Exports (Tulli, 2022). In numbers, exports to Asia in 2021 in value account for EUR 8,6 billion, and China, Japan, and South Korea together total around EUR 6 billion (Tulli, 2022).

There are many challenges and issues associated with exports of goods. Different factors can interfere with the steady and smooth flow of operations. Companies exporting goods would have to go through various steps to organize a shipment abroad. Usually, to facilitate their activities, they delegate a third party which would take care of the organization of the shipments. Freight forwarding companies are intermediaries which operate in the import/export business by organizing shipments by air freight, sea/ocean freight, rail freight and road freight. They take care of handling and managing the material, information and payment flows associated with a shipment. They are not performing the delivery themselves, but they are the ones taking care of all aspects of the trade, making sure that all the international laws are complied with, and in accordance with agreements made by countries, for example Incoterms. Freight forwarders actions are multiple, from contacting reliable partners like shipping companies, depending on which way of transport they use, they take care of clearance of the goods through Customs, suggest proper and beneficial cargo insurances, advise about proper packaging and other useful services like handling and storage of goods. One key role of

the freight forwarding companies is to organize the shipments via settled routes which ensures their clients that they are receiving beneficial advantages, from the fastest lead times, overall costs, and the safety of the cargo throughout the journey.

1.1 Problem Statement

After months of rumours and speculations circulating among various national intelligences and among press agencies about an escalation in relationships between Russia and Ukraine, the former attacked the latter, generating a war that no one expected, wanted, or needed, especially when the world was beginning to recover from the damages that COVID-19 caused to people and economies. EU countries and other world countries decided to implement different packages of sanctions against Russia. Those sanctions include restrictions on importing and exporting goods from and to Russia, sanctions on road transport, as well as sanctions on use of EU countries airspace and the ban on Russian sea cargos in all the EU ports (Council of the European Union, 2022). Consequently, Russia closed its airspace and roads to those countries imposing their sanctions on them (Bloomberg, 2022). Since the start of the war there has been a major change in arrangements of shipments to Asian countries like China, Japan, and South Korea.

The fastest and most obvious way for Finnish goods to reach the far east destinations is to cross Russia when shipping by rail freight or road freight, as well as by air freight as the flight would have to cross the Russian airspace. With the implementations of sanctions from both sides, it is not possible anymore for freights to go through Russia. Freight forwarders found themselves with the huge task of finding solutions to make companies go on with their exports, designing new routes that would allow goods to reach their destination in the most advantageous way, both financially and in terms of lead time.

1.2 Aim of the Study and Research Questions

The purpose of this study is to find out which are the challenges that freight forwarders are facing on exporting goods to Asian countries, and what are the measures that freight forwarders have planned and conceived to remedy the sudden changes that have found the exporting companies with the big dilemma of reaching their customers in Asian countries and how the

implementation of the new measures has transformed the way they normally operate. It would be also a chance to demonstrate how logistics professionals are able to find solutions to crisis that hit the international trade sector.

The author will be looking for finding the answers to the following questions:

1. What are the main challenges that freight forwarders operating in Finland are facing on exports to East Asia?
2. What kind of changes in operations are freight forwarders dealing with?
3. What are the solutions that freight forwarding companies have found to overcome the changes?

1.3 Demarcation

This research is intended to find out about the Finnish exports to Asian countries only, specifically to China, Japan, and South Korea, which are the three major Asian importers of Finnish goods. The research is also limited to delivery of goods and not transportation of passengers.

The means of transport taken into consideration are rail freight, road freight and air freight.

Even though the sea freight has not been included in the study, it has been proved to be instrumental in changes in operations and the solutions that company have found to overcome the issues that the war in Ukraine have created.

2 THEORY

In this chapter the theoretical part of the thesis is illustrated. The chapter starts with a brief explanation of international trade and the importance of exports. It continues with a general picture of how Finnish exports developed and changed in the last 30 years. Then it is described the means of transports in exporting goods and the routes used. Sources for the information collected vary from different online articles, academic books, journals, and company websites operating in the logistics field.

2.1 International Trade and Importance of Export

International trade helps businesses to expand their markets outside of their country's borders. Originally, trade between people began for agricultural products: certain goods can grow only in specific areas depending on the climate, soil etc. Cultivating products in excess would allow exchange with other products that could only be grown elsewhere, creating benefit for the exchanging groups. Nowadays the concept hasn't changed. As well as agricultural products, particular raw materials or goods are found in specific areas only, which may be needed in places where those materials are not present, for internal manufacturing, or production to be exported. Production in excess can be exported in areas in demand for those goods that cannot be manufactured or in regions where production would be too expensive and would be more convenient to get them elsewhere. The need of exchange of the goods generated the urgency to have adequate ways of transport for the products and suitable and convenient routes to reach the new markets. Additionally, trade of goods needed to follow certain rules and regulations which paved the way to those laws that nowadays are in place for international trade, and which are established by international institutions (British Chamber of Commerce, 2011). GATT (General Agreement on Tariffs and Trade) was founded in 1947 to reduce the boundaries for international trade like tariffs and quotas, and it has been replaced by the establishment of the WTO, the World Trade Organization in 1994 (Britannica, 2022). Figure 1 in page 10 shows the graphic of the export value in billion U.S. dollars from 1950 to 2021.

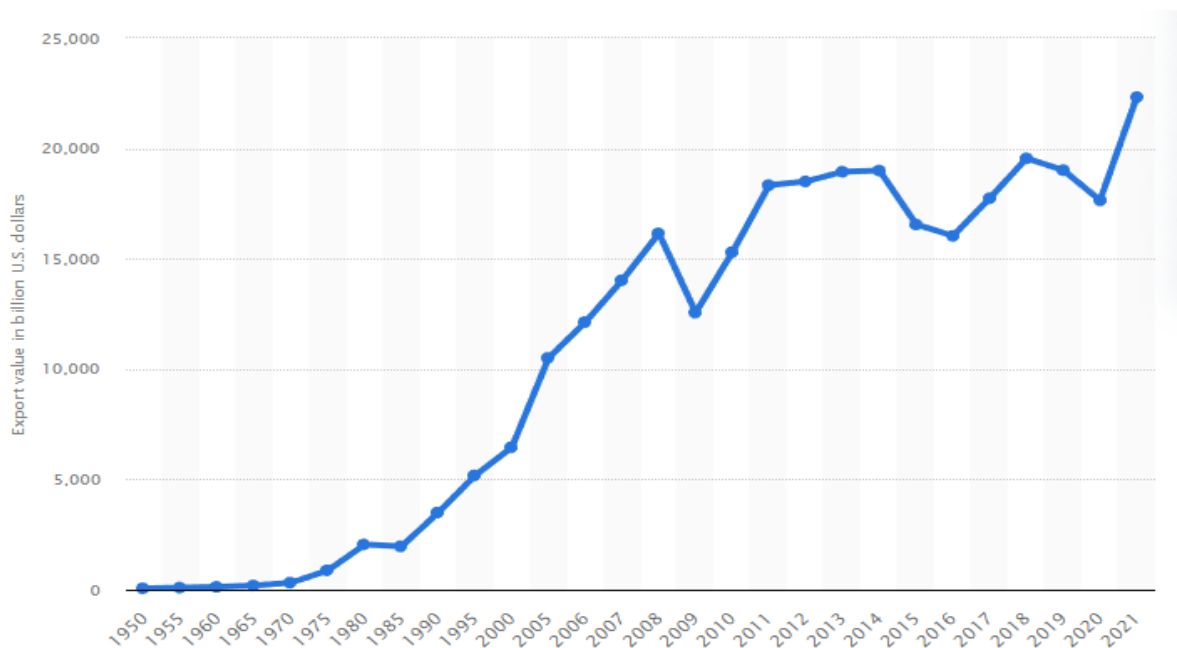


Figure 1: Global exports from 1950 to 2021 (Statista, 2022).

International trade, in a nutshell, is the exchange of capital, products and services among different countries. The export of goods refers to products that are sold internationally which were produced, manufactured, or grown in a different country.

Apart from satisfying the needs of importing countries, exports have an important role in for various reasons. For example, extraction and subsequent production of goods from raw materials has created skills and expertise in those communities where the materials are found, or in those areas where production is strong, thanks to research and development of better production technics and new methods, that contribute to increase manufacturing and lower costs (Seyoum, 2022). Furthermore, exports increase creation of jobs as well as wages to those involved in it (OECD, 2012).

International trade has seen a constant growth during the years, apart from decrease due to global economic crisis at the end of the last decade and the slump of 2019-20. The growth of international trade mirrors the developments in countries relationships, investments, globalization, improvements in technology and people's knowledge. If in 1950 the sum of global exports totalled USD 61,8 billion, in 2021, the value of goods exported globally totalled around USD 22,3 trillion, a new pick after the collapse of global trade due to COVID-19 (Statista, 2022).

2.2 Finnish Exports

In the last 30 years, some events have influenced the trends in Finland's international trade. In 1989 the Soviet Union was Finland's main importer with the 15 percent of the share of Finnish exports. Even though in 1991 the Soviet Union dissolved, and the demand of many goods diminished, especially in the machinery sector, equipment, wood pulp and paper goods, and the financial crisis of the same year hit hard the Finnish economy, surprisingly Finland's trade balance did not go on deficit, also due to the drop of the imports for the country's financial crisis. The markka, the Finnish currency before the euro, was devalued and within a year the competitiveness of Finland in international trade grew leading to a surplus in the trade balance. The surplus lasted for a couple of decades, but it started to decrease after its highest point in the year 2000 and going on deficit at the beginning of the following decade (Statista, 2022). The decrease was caused by different factors, for example crisis in the IT sector where Finland

was strong given its exports but was hit by a significant decrease of ICT product prices, and the rise in price of commodities like crude oil, ending Finland's trade surplus in 2011. That was largely due to the fact that during the same years the world experienced a major financial depression, which led to a decrease of a third in international trade, without forgetting the Nokia mobile phone debacle. During the second decade of the century exports remain strong thanks to the forest industry goods and to machinery related to it. Also export in the transportation and automotive sectors increased, as well as shipyards production in Turku, with products exported all over the world (Bank of Finland Bulletin, 2022).

Finnish exports include products and materials deriving from forestry like wood pulp, paper articles, lumber, and wood articles, vehicles, industrial and forestry machinery, iron, steel, and other metals, mineral fuels, plastics, and products thereof, chemicals and pharmaceutical products, medical and optimal products etc. In 2021 Finnish exports totalled EUR 68.9 billion, while the imports bill was of EUR 72.9 billion, leaving the country with a trade deficit of around EUR 4 billion, the biggest gap since the sign in the Finnish balance trade became constantly negative since the beginning of the last decade (Statista, 2022). The first 6 months of 2022 saw the negative sign again with a EUR 6.3 billion deficit in the balance trade (Tulli, 2022).

As of the end of 2021, EU countries are destinations of the 72.4 percent of the Finnish exports, Asian countries import the 13.8 percent, and 7.9 percent of the exports go to North America. While exports to Russia decreased steeply due to various economic and political issues, in 2013 Germany became, and it still is, Finland's main importing country, followed by Sweden and the US. Among the biggest importers of Finnish goods there is China, which joined the WTO in 2001, having a share of the 5.3 percent of the Finnish exports (Tulli, 2022). Other notable Asian countries importing Finnish goods are Japan, 2.3 percent and South Korea, 1.1 percent (Tulli, 2022).

2.3 Finnish Exports to East Asia

Exports to Asia are an important slice of the global Finnish exports. In 2021 the sum of the exports to Asian countries totalled around EUR 8.4 billion, and the sum of the export value to

the strongest economies in the Asian continent, China, Japan, and South Korea was around 6 billion euros. It is important to observe what kind of goods Finland exports to the three East Asian countries, and the differences of the imported goods by those countries.

2.3.1 Exports to China

With a share of the 5.3 percent of the total Finnish exports, the values of goods imported by China was EUR 3.6 billion in 2021, with an increase of 19 percent of the value from the previous year. The most imported product imported from Finland is pulp and wastepaper, with the 30.7 percent of the share (37.3 percent, including all the forestry products exported, like paper articles and wood), followed by industrial machinery, electric machinery and equipment together, 29.1 percent, metals, metal products, metalliferous ore and metal scrap with 9.9 percent, chemicals and chemical products with the 7.3 percent, instruments and apparatuses 6.5 percent and the rest includes food and beverages, skins, furs and hides, and other products of different classification. In the figure 2 in page 13, the total value of exports to China and the different types of products exported in 2021 are shown.

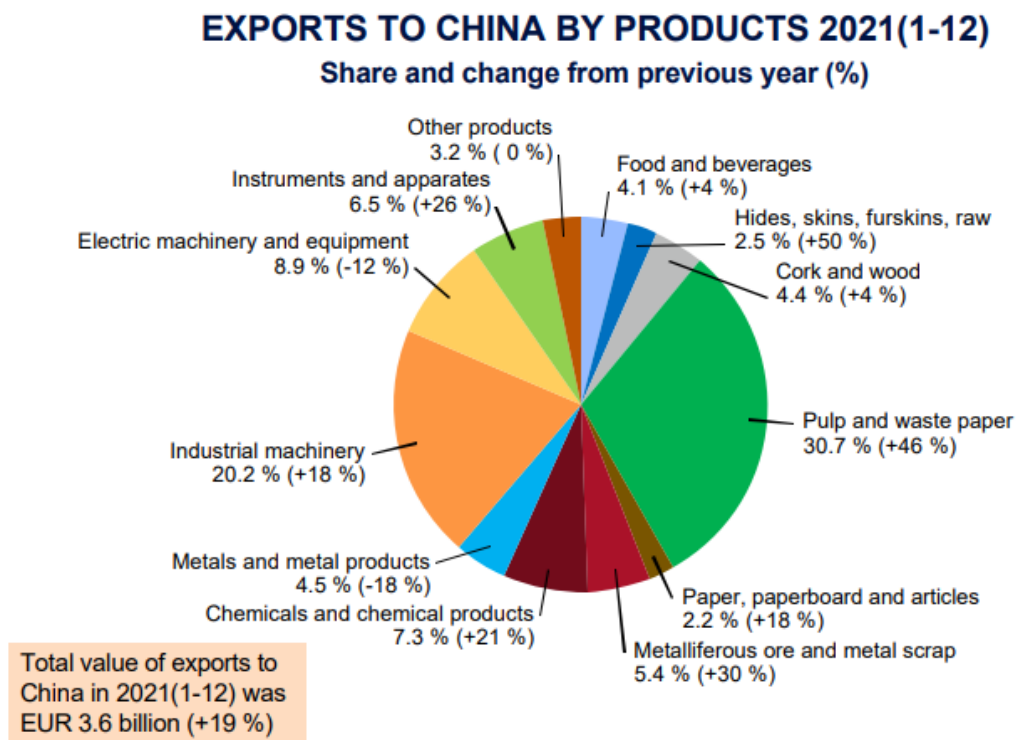


Figure 2: Exports to China in 2021 (Tulli, 2022).

2.3.2 Exports to Japan

Japan imports of Finnish goods in 2021 are the 2.3 percent of the share and the value is EUR 1.6 billion. The most imported products from Finland are forestry products in general, with nearly half of the share, followed by metals and metal products, then chemicals and chemical products, machinery, and equipment and the rest include food and beverages and other unspecified products (Trading Economics, 2022).

2.3.3 Exports to South Korea

Finnish goods exported to South Korea in 2021 were the 1.1 percent of the total of Finnish exports with a value of EUR 760 million. Unlike China and Japan, the most imported goods were machinery and equipment, followed by electric and electronic equipment, then forestry products in general, including wood pulp and paper, optical, technical, and medical apparatus, and then food and beverages, fur and skins, and chemical products (Trading Economics, 2022).

2.4 Routes to Asia

Trades between Europe and Asia, and especially with China go a long way in the past, and due to the geographical position of China, Japan, and South Korea in the world map there are different routes that can be used in exporting goods to those countries, by all means of transport. The Silk Road is the name given by the German geographer Ferdinand von Richthofen in 1877, *Seidenstraße* in German, to the routes of trade that China developed starting from around year 150 BCE to these days. The network of routes was used to trade products from the old China to different regions in central Asia and Europe. The name was given because the main product that were traded were silk fibres (Weidong, 2019). The Silk Road routes were used not only for commercial exchanges, but to connect people of different civilizations, and for cultural and religious purposes as well. During the centuries the trade between China and the western countries developed and intensified and more routes were adopted, inland and maritime.

In 2013 the president of China Xi Jinping announced the creation of the Belt and Road Initiative, which is a project that takes the old concept of the Silk Road to this era, with the improvement of infrastructures around the multiple regions crossed by the trade routes from China to the rest of the world. Ports, airports, roads, railways, and telecommunication networks

are improved and modernized. And if the Silk Road was developed to improve trades between China and the west, the Belt and Road Initiative looks to every continent. Finland benefits from this project as well, due to the trades with China via rail, air, and road freight (OECD, 2018).

2.4.1 Rail Freight

The main hub operating in Finland for rail freight is situated in the south-east city of Kouvola. The city is located around 130 km northeast of Helsinki. It is a modern and international railroad hub operating in domestic and international passengers and cargo services to every direction. Since the centre is so important for the mobility of people and the sorting of cargo, a big development is being actualized: The Kouvola RRT (Raid and Road Terminal). It is a project which will be completed in 2023 to be part of the trans-European transport network (TEN-T). This is a European network of railways, waterways, maritime cargo routes, roads, ports, airports, and railroad hubs (European Commission, 2022). Cargos from Kouvola cross the Finland-Russia border near Vainikkala in the south-east, reach Saint Petersburg, then Moscow where trains with shipments to Japan and Korea use the famous Trans-Siberian route, until reaching the port of Vostochny near Vladivostok, and from there containers are loaded to ocean cargo vessels to Yokohama in Japan and Busan in South Korea. The trains loaded with containers to China continue their journey southbound, crossing Kazakhstan where, trains use the Khorgos gateway facilities near the border with China. From there they reach the huge railroad hub of Zhengzhou where freight trains are diverted to the Beijing region, the Shanghai one, Hong Kong, and other important industrial cities like Zhengzhou, Wuhan, and Chongqing. Figure 3 shows the route of rail freight leaving from Kouvola, Finland and reaching East Asia.



Figure 3: Trains to Asia from Kouvola (Railgate Finland, 2022).

One important feature of the train freights departing from Finland is that they use the same wide five-foot gauge that they use in the ex-Soviet Union states, therefore they do not need to change to a different rail network when they arrive in Vladivostok, saving a lot of time. On the contrary, in China, railroads use the standard Western European gauge, and trains coming from Finland need to switch to a different railroad network. This is done in the dry port of Khorgos, where through a heavy lifting crane, containers are lifted from wagons coming from Finland and placed to the ones going to China.

2.4.2 Road Freight

Road freight from Finland to Asia is definitely the least way of transport used to reach Asia. This is due to the fact that distances are very long, and it is a way of transport usually selected for shorter distances. It can also be very costly compared to, for example, rail freight services, because of the fuel used during the trip, the personal needs of the drivers in terms of resting times, and physiological need, and also the fact that the size and quantity of goods are that can be transported are limited. There could also be setbacks and unplanned situations when crossing different countries, for example in terms of documentation and language barriers. And other issues can be found in quality of the roads and the mapping of routes that can often be wrong. There are some companies that are specialized in road freight as well, for example DSV Global Logistics, which has started a program called the Silkway Express during the COVID-19 pandemic and many shipments were halted. They claim that the service by road would take from 14 to 18 days to reach China from Europe (DSV, 2022).

2.4.3 Air Freight

Air cargo is the fastest way to reach destinations all over the world. There are several companies which operate from Finland, and Vantaa airport is the only Finnish airport hub. Goods can be custom cleared as they arrive to the airport. To reach East Asian airports, cargo aircraft necessarily need to cross the Russian airspace to save both in lead time and in fuel consumption. There are several air cargo companies departing from Vantaa airport to several destinations all over the world, as well as passenger flights which can accommodate small cargo in the hold of aircrafts used. There are many flights to different Asian locations as well, the majority of which are Chinese destinations. Finnair Cargo flights reach Tokyo, Seoul,

Shanghai, Hong Kong, and Guangzhou. There are other companies operating from and to Vantaa airport with freight operations to Asia, like Japan Airlines, China Air and Cathay Pacific.

Some of the advantages of using air freight services are that lead times are reduced a lot, and it is a feature that is particularly convenient when it comes to edible products. On the disadvantages side, air freight shipping is more expensive than the rest of shipment methods, and the size and weight of goods that can be shipped is limited.

3 METHOD

In this chapter, the empirical part, the methods used to collect and analyse data are explained. It starts with an overview of the meaning of business research and continues with a sketch of the two most common research methods. The chapter goes on with the description of how data is collected for this thesis and how data is processed.

3.1 Business Research

Business research can be defined as “academic research on topics relating to questions that are relevant to the field of business and management and have a social science orientation” (Bryman & Bell, 2015). Social sciences are intended those academic studies that are related to characteristics of social and cultural features of human behaviours, and those studies, among many, include sociology, philosophy, and economics. Therefore, marketing, organizational behaviour, accounting, HRM, and logistics are to be included in this category (Britannica, 2022).

Academic business research is driven by the need to understand, study and analyse changes and developments in institutions, industries, business fields and systems, as well as for the purpose to fill gaps and voids in studies, theory, and literature in general (Bryman & Bell, 2015). When conducting business research there are some elements that characterise it. The business research process starts with the *literature review* of what is already known about the topic we are interested in, methods used to study it, controversies, and reliability of studies and

key figures on the topic we are researching. Some topics have been studied many times and there is an exhaustive amount of material about them, so it is important for a researcher to come up with new theories that haven't been discussed yet. The process continues with *concepts and theories*. Theories embody one or more concepts which are instrumental in how we decide to collect data for research. On conducting business research, *research questions* are a key element, as they shed light on what is that researchers want to find out. They help researchers to structure the work, what kind of literature to use, help on choosing the kind of data to be collected and from whom, give support when analysing data and coming up with conclusions, and assist on giving a precise idea of what the research is about, to the readers. *Sampling* is the step in which researchers select who to collect data from. For example, in quantitative research, in conducting surveys a sample is chosen in a way that would represent a population in the best possible way, and a sample can be chosen using different variables, by gender, age, income, and so on. In qualitative research, researchers tend to use the purposive sampling form, in which participant are chosen in a deliberately planned way, to gather relevant data from them. Often, respondents in purposive sampling are managerial figures chosen from companies or organizations whose business area is pertinent with the study. The process continues with *data collection*, for instance obtaining data from a sample in a survey or conducting interviews, like structured or the highly used semi-structured interviews. *Data analysis* is when researchers select relevant data (there can be a vast amount of data to choose from) and start with the interpretation of it and coming up with results and conclusions (Bryman & Bell, 2015).

3.2 Choice of Method

There are two methods to choose from when performing business research: qualitative and quantitative methods. Qualitative method is in general descriptive approach to a phenomenon, and it is conducted through interviews, observations, analysing documents, journals, and articles. It commonly answers the questions what, when, where, how, and why. Quantitative method, on the contrary, uses numerical data which is generally gathered through respondents to surveys collected from samples of the populations that are intended to study, and secondary data like statistics, and the comparison of variables to find correlation between them (Gajjar, N.B., 2013).

The research method chosen by the author of this thesis is a qualitative method, in which the data obtained from the participants or contributors of the study (for example the interviewees) is the gist of the research. And specifically, using this method would give the researcher the opportunity to talk to professionals who have experience and knowledge in a specific field and obtain detailed facts, opinions, and perspectives that other methods would not allow. Given the research topic, it would be unlikely to opt for a quantitative research method. Qualitative research steps are illustrated in the Figure 4 below.

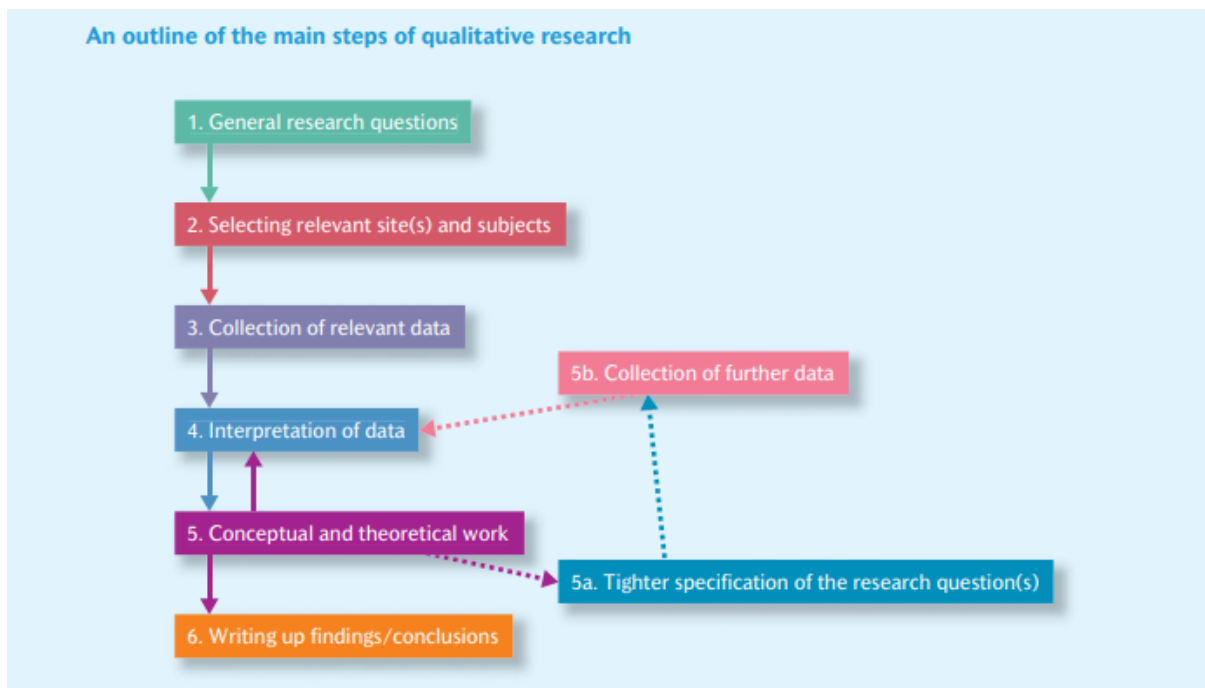


Figure 4: The Main Steps of Qualitative Research (Bryman & Bell, 2015).

3.3 Choice of Respondents

The participants of this research were chosen using the purposive sampling model. In qualitative research, purposive sampling is a style of sampling in which the researchers choose the respondents of the study upon their own initiative (Hair et al, 2020), but using selective criteria, and not in a random principle. The basic principle of purposive sampling is that respondents are picked in a strategic and purposeful way within a sampling frame, and those chosen are significant and compatible with the research questions (Bryman, Bell, 2015).

In the case of this thesis, the criteria used to select the respondents is that they are Finland-based professionals employed in freight forwarding companies members of the Finnish Freight Forwarding and Logistics Association (Suomen Huolinta ja Logistiikkaliitto Ry). The participants' positions have to be from middle to top management or administrative roles in the aforementioned type of companies. This is to assure that the information collected comes from experienced and reliable sources. It is also essential that the interviewees operate in companies dealing with air, road and rail freight modes of transport and concerning exports to East Asian countries.

Request for an interview were sent via email to several professional figures employed in freight forwarding companies. The emails sent explained in detail the purpose of the interview, mentioning the title of the thesis, and defining further details of the research aim. The recipients were told what kind of interview it was going to be, the approximate number of the questions, which were to be sent to them in advance to give them time to prepare for the interview. The email also explained the options in which the interview was to be conducted, in person, by phone, or video call, the participants' rights and anonymity, and an explanation of the interviewer's use of the material collected.

3.4 Interview Guide

Qualitative research interviews are an excellent way to collect primary data in business and management. In qualitative research, there are three main kinds of interview, *structured*, *unstructured*, and *semi-structured* interviews. *Structured* interviews are done with pre-formulated questions asked in given order, it requires a meticulous planning and does not require much participation of the interviewer as it is needed to stick with the written questions only. *Unstructured* interviews on the contrary, does not require more than one or two pre-formulated questions if any, and both the interviewer and the respondent have the freedom to freely engage in a conversation about a specific topic. *Semi-structured* interviews are a mix of both the structured and unstructured interviews. There are pre-formulated questions which can be asked in a non-specific order, and new questions could arise during the interviews, to supplement the narrative with further useful data (Meyers, 2020). Semi-structured interview is the method chosen by the author to collect data to answer the research questions, as the answers given by the respondents could generate new ideas and the need to ask further questions to the interviewee and get a more thorough picture of the issue.

To gather quality data that will help to answer the research questions, a good preparedness is needed (Meyers, 2020). And a good preparedness means that researchers need a plan of action before conducting interviews. In preparation for an interview, the researcher has to familiarize with the company and the context in which the interviewee works, so ensure a better understanding of the answers given. When conducting interviews, it is important to make sure that a good recording device is used, because interviews need to be transcribed and it would be a waste of time if poor recordings come up. The interview location should be chosen in a safe, quiet, and private environment, to avoid any kind of disturbance (Bryman, Bell, 2015).

In semi-structured interviews, an interview guide helps to organize and construct the interview. the researcher sets an order according to the research questions, to give the interview a sort of consistency when conducting it. This order can also be modified during the interview (Brinkmann, & Kvale, 2018). Questions need to be formulated in the best way possible to answer the research question and using a proper language that is clear to the interviewee. Leading questions, in which the interviewer “a question asked in a way that is intended to produce a desired answer” (Britannica, 2022), must be avoided (Bryman & Bell, 2015).

Brinkman and Kvale (2018) have proposed nine types of questions that characterize qualitative research interviews:

Introducing questions, used to start the interview that then led to the actual interview. *Follow-up questions*, where the interviewee is asked to integrate the answer given with further explanations. *Probing questions*, are those when more details are asked to be added. *Specifying questions*, are asked to get more descriptive statements. *Direct questions*, which are asked to bring out direct answers. *Indirect questions*, which could refer to other people’s perspective. *Structuring questions*, when a topic is finished, and another one is opened. *Silence* is a pause that gives the chance to the interviewee to reflect a bit before providing more useful information. *Interpreting questions* are when statements of the interviewees are brought up and clarification is asked.

In this study, the author has divided the questions into four sections. The first section is Introducing Questions, the second one is Impact on Business Operations, the third one is

Changes in Operations, and the final section is called Solutions. The specific questions can be found in Appendix 1.

3.5 Data Collection

As specified in the thesis title, the study is about issues pertaining exports to Asia that freight forwarders are experiencing; therefore, information is to be obtained by professional figures in the freight forwarding world, and the method chosen to collect data is interviewing. Among the various types of interviews, semi-structured interview is the method chosen for data collection. Semi-structured interview method is conducted directly with the interviewee in person, via phone or through video call. This type of interview gives the opportunity to leave a certain freedom to the interviewer, for example when formulating the questions which do not need to follow a specific order. It is a type of interview which gets the interviewee engaged with the topic of the research. After the interview is planned, the researcher can send the interview questions to the interviewee. As Galletta (2013) suggests, before the interview starts the researchers specifies the purpose of the interview, express gratitude and clarifies the interviewee's rights, signing the consent form and giving permission to record the interview. The interview proceeds according to the researcher's schedule, on asking questions in a pre-planned order. While the interviewee is answering the questions, notes should be taken for an eventual come back to certain passages and clarifications that might be required. Time and space are to be given to the respondent to be exhaustive with their narrative and wait until the contributor has finished to talk for proceeding with the following questions. At the end of the interview, it can be asked if the interviewee want to add something to the statements given. When the interview is over the participant is to be thanked for their time and highlighting the importance of their contribution to the study (Galletta, 2013).

The respondents of the study were chosen among professionals in the freight forwarding industry operating in Finland. They were contacted by email and agreed to concede an interview which had to be take place according to the interviewees' best convenience in terms of date and time of the day. In two cases the interview took place through the web platform Microsoft Teams, the others through Zoom. The interviewees, apart from one, agreed to be recorded for the author's transcriptions purposes to facilitate the interpretation and the

recounting of the data. During the interview of the respondent who did not agree to be recorded, notes were taken and used to present the information gathered.

3.6 Data Analysis

In qualitative research, authors have to choose between two types of processes: inductive and deductive. Deductive analysis means that theory is implemented to the data in order to prove the theory itself. In the inductive method the researcher goes through the data collected and identifies concepts and topics which would generate theories and hypothesis useful to give answers to the research questions (Bingham & Witkowski, 2022). And an inductive approach is the method chosen by the author for processing the data collected. Data collected from different interviews can be compared to see if there are common grounds and analysed further to come up with consistent conclusions. As collecting information could generate a big amount of material or reach data, researchers can use codes to make the analysis easier. Coding is the application of labels to the data scrutinized that helps to grasp the meaning and at the same time shortens the size of the data to analyse, and the importance of using code grows with the increase of material (Harding, 2019).

Data has been collected through interviews with professional figures in the Finnish freight forwarding industry. To those who accepted to be interviewed, the questions were sent in advance so they could have some time to prepare adequate answers. Three of the respondents accepted to be recorded and a Consent Form was sent to them to be read and signed before the interview took place. The interviews have been transcribed within a couple of days from when the interview took place. After each transcription was finalized, the files with audio and video recordings of the interviews were destroyed by the author, who was the only person who had access to the files. One of the respondents only agreed to be interviewed with the clause that any recording was to be made and, to collect data, the author took notes during the interview. To be able to conduct the interview with the professional who did not want to be recorded, a Non-Disclosure Agreement was sent to the author to be read and signed.

As mentioned in the paragraph 3.4, the interview questions have been divided into four sections. The results of the interviews have been classified into the form of tables, four in total, which are distinguished by a number, one to four, and the different background colour. They

show the main points of the interviews results, which are then explained in detail below each table, reporting the information provided by the respondents, in chronological order.

3.7 Validity and Reliability

In qualitative research, quality is measured with validity and reliability concepts. In detail, validity is a concept that assures that the research methods and instruments used are appropriate when finding answers to a research question. According to Brinkmann and Kvale, (2018), in social sciences validity refers to the strength and the solidity of a theory and helps to evaluate if a used method helps to study what is aimed to be studied (Brinkmann, & Kvale, 2018). Reliability can be defined as the coherence in the way that your study or research has been conducted. To give an example, if the same instruments and methods are used again for the same study, the results would be the same (Brinkmann, & Kvale, 2018). The two concepts together generate trustworthiness of a study. To guarantee the trustworthiness of this study, the author has chosen a qualitative method which has proven to be a reliable and valid method in social science studies. Through the selection of interviewing method in data collection and specifically semi-structured interviews. To further guarantee trustworthiness of the study, the selection of the participants has been made shortlisting a few companies who are big actors in the Finnish freight forwarding sector. And from those company, interviewees were picked basing the choice upon their role and seniority.

3.8 Ethical Considerations

To gain the consent of the interviewees to participate in the study, to have their permission to be recorded during the interview, to guarantee their anonymity, and to ensure that all the material collected would be safely stored and that the author would be the sole person who would have access to it, a consent form has been prepared and has been signed by the interviewees and the researcher. A blank copy of the consent form can be found in the appendices.

4 RESULTS

In this chapter the findings of the study, which have been accomplished thanks to semi-structured interviews, are revealed. The intention of the author of this research has been to

gather as much detailed information as possible to answer the research questions. The interviewees' identity and the name of the companies they work for are kept anonymous although, to express validity and legitimacy of the study, the job title, and the number of years in the logistics business are disclosed. The four respondents are identified as Interviewee A, B, C, and D. The interview questions are divided into four sections and each section is summarized in the form of tables. Under each table the author illustrates in detail the information and the data collected. The list of the interview questions can be found in Appendix 1.

4.1 Introducing Questions

In this section, the interviewees' backgrounds are presented, as well as the kind of company they work for and the main destinations of their exports to East Asia. For legal reasons, and to adhere to the agreements made between the interviewer and the respondents before the interviews took place, the identity of the participants and the name of the company they work for are undisclosed. Table 1 shown below, presents the main points of the respondents' backgrounds and the companies they work for. In addition, the main destinations in East Asia of their companies' exports are disclosed.

Table 1: Interviewees Information

1	Interviewee A	Interviewee B	Interviewee C	Interviewee D
Job Title	Director of Air Freight Products in Finland Employed in a Multinational Freight Forwarding Company	Sales Manager Employed in a Finnish Freight Forwarding Company	Sales and Business Specialist Employed in a Finnish Logistics Company	Air Logistics Manager in Finland Employed in a Multinational Freight Forwarding Company
Experience in the Freight Forwarding Sector	15 years	Working in Freight Forwarding Since 2015	5 Years	28 Years
Company's Main Destinations to East Asia	China, South Korea	China, South Korea	China, Japan	China, South Korea

Interviewee A

Interviewee A has been interviewed on the 4th of November through Microsoft Teams at 10 am and the interview lasted for about 25 minutes. The interview has been transcribed by the interviewer on the same day, and subsequently the video file recorded has been destroyed. The participant works as the Director of Air Freight products in Finland with 15 years of experience in the logistics sector. Before switching to air freight, the respondent worked in the ocean freight division. The company the interviewee works for is a transport and logistics multinational enterprise operating globally, with a well-established branch in Finland. Their operations include air, rail, road, and sea freight. The company functions also as a freight forwarder, and the main destinations of the exports to East Asia they take care of are China and South Korea. They tend to export to Japan as well, with smaller numbers.

Interviewee B

Interviewee B has been interviewed on the 10th of November through a Zoom meeting which took place at 17 and which lasted approximately 30 minutes. The interview has been transcribed starting straight after the interview finished and has been completed the morning after, and then the video file has been destroyed. The participant is a sales manager who started to work in the logistics sector in 2015 and has had different roles within the industry. The company the respondent works for is a settled Finnish freight forwarding company operating for nearly two decades and whose business concerns air freight, road transport and sea cargo. Their clients are nearly exclusively based outside of Finland. The main destinations of the export to East Asia they take care of are China by far, and South Korea with much smaller numbers. They manage some export to Japan also.

Interviewee C

Interviewee C has been interviewed on the 14th of November at 11:00 through Microsoft Teams, and the interview lasted approximately 25 minutes. After the transcription has been done, on the same day of the interview, the file containing it has been deleted. The respondent works as a Sales and Business Specialist for a Finnish freight forwarding company. The interviewee has an experience in the logistics industry of over five years. The company the respondent works for is a transport and logistics company operating in the Nordics, the rest of Europe, and Asia. The main countries in East Asia the company manages are China in large numbers, followed by Japan and some shipments to South Korea too.

Interviewee D

Interviewee D has been interviewed on the 15th of November at 10:00 through Zoom, and the Interview lasted approximately 30 minutes. No recording was allowed to be made; therefore, the interviewer has taken notes during the duration of the interview. The respondent works as an Air Logistics Manager in Finland for a multinational company with a well-settled branch in Finland. The interviewee has been working for over 28 years in the logistics industry and has been working for the company for 23 years, and over ten years in the current role. The company operations include air, rail, road, and sea freight. The company functions also as a freight forwarder, and the main destinations of the exports to East Asia they handle are China and South Korea. They manage export to Japan as well, with smaller numbers.

4.2 Impact on Business Operations

In this part of the thesis the interviewees explain the impact of business operations experienced by the companies for whom they work, and the factors that have influenced the conduction of their business since the war in Ukraine started. Reaching East Asia from Finland through rail, road and air entails crossing the Russian territory, both by land and airspace. As mentioned in Chapter 1, as a countermeasure of EU and other world countries' sanctions applied to them, Russia has forbidden the land crossing and the airspace use of its territory. The elements that are taken into considerations are also the way of transport that encountered the biggest difficulties, the industries hit the most as a result, business decrease in terms of volume and possible job losses within the companies scrutinized.

Table 2 displays the main points of the respondents' testimony on a series of questions which helped to answer the first of the three research questions of this thesis, which is: "*What are the main challenges that freight forwarders operating in Finland are facing on exports to East Asia?*". A detailed account of the main points shown in Table 2, expressed by each participant in the study, follows.

Table 2: Impact on Business Operations

2	Interviewee A	Interviewee B	Interviewee C	Interviewee D
Impact on Business Operations	Restrictions in Russian Airspace Increase of Transit Time Less Loading Space Due to the Need of Extra Fuel	Restrictions in Russian Airspace Increase in Freight Rates Airlines Surcharges Global Insecurity	Restrictions in Russian Territory Access Clients Concerns Orders Cancellation	Restrictions in Russian Airspace Less Demand Increase in Freight Rates Orders Cancellation
Way of Transport that Had the Biggest Impact	Rail Freight	N/A	Rail Freight	Air Freight
Industries that Suffered the Most	Perishable Goods, Food in General Pharmaceuticals	Not Perceived	Packaging Material Paper, Forestry Products	Machinery Pharmaceuticals Perishable Goods
Decrease in Volume Of Exports	No	No	Yes	Yes
Redundancies or Job Losses in the Company	No	No, on the Contrary, New Hirings	Some	No

Interviewee A

Interviewee A company's business involves every kind of freight transportation mode, but for this research the ocean freight has not been taken into consideration. Therefore, those restrictions have become a considerable issue on the normal conduction of exports from Finland to East Asia. Avoiding the Russian territory and airspace have increased the lead time in air shipping to East Asia as one of the consequences of the restrictions applied by Russia. Increasing the transit time requires for aircrafts to be supplied with extra fuel, that leads to a reduction of goods that can be loaded. The way of transport that has suffered the most is by large rail freight, for geographical reasons. Rail freight became very popular during the spike of COVID, and for a good amount of time it has replaced ocean freight, due to the congestion

or closure of Chinese sea ports. The closure of Russian land access has changed it to the worse for rail freight. Among the goods that are shipped to East Asia by air, the products that have had the biggest impact are perishable goods, as they need to arrive to destination in a frame of time where their deterioration have not started, and for pharmaceutical products. Despite the issues encountered, the volume of goods that are being shipped to East Asia has not decreased, at least when it comes to air freight, thanks to the addition of more shipments. As the business goes on without contraction, the company has not let go any employee, and has not made any redundancy.

Interviewee B

Interviewee B company's business comprises air, road, and sea freight. The restrictions on Russian airspace have been an initial issue to the normal handling of operations. This has led to an increase of freight rates, due to the need of supplying the carriers with more fuel and because some air shipping companies implemented a kind of surcharge, that the respondent calls "war surcharge". The start of the war in Ukraine has also provoked a sort of global insecurity that has spread among many actors in the export sector. Even though issues have emerged, the export business in the Interviewee B company's numbers has not decreased, they are in fact experiencing a steady growth of orders. Also, any of the transport modes that they manage have suffered from negative consequences, and in any of the product category neither. And to support that statement the company has no discharged any of their employees nor made anyone redundant, but on the contrary, they have hired new professionals.

Interviewee C

Interviewee C company's operations concerns mainly road and rail freight to and from the Nordics, Europe, and Asia. Before the war in Ukraine started, the company had big volumes of shipments going through the Russian territory. The larger part of those shipments was imports from or exports to East Asia. The restrictions on the crossing of the Russian territory have had a major impact on the company's usual operations. This has caused an initial confusion and concern for clients, even before the sanctions were applied, with fears that cargo would be confiscated by the Russian authorities, for example, or other kinds of concerns. This led to several cancellation of orders even before the actual restrictions were discussed and implemented. Therefore, there has been an initial shock for the rail industry due to not knowing what it was going to happen. The way of transport that suffered the most for the company is rail freight. The products that had major impact on the company's exports to East Asia are

packaging material, paper, and forestry products in general. Restrictions and cancelation of orders generated a decrease in the volume of goods exported, and the company had to terminate the contract of some employees too.

Interviewee D

Interviewee D company's business include every kind of transport mode even though, on collecting data, the interviewer hasn't taken into consideration the ocean freight part of the company's deals. The restriction on the Russian airspace have had an initial impact on the company's operations, which led to a decrease in the demand of their services, and the increase on freight rates, which is mainly due to the rise of the cost of fuel. The way of transport that has suffered the most for the company's services implementation is the air freight. The products that have had a big impact on the company's exports are industrial machinery, perishable commodities, and pharmaceutical products. As there has been less demand for the company's services, the volume of the exports has naturally initially decreased, with enterprises preferring to turn to ocean freight. There has been a spike in costs of operations in 2022 compared to the previous years, and it is unknown when the costs are going to decrease. There has not been any job loss in the company that can be related to the start of the war in Ukraine.

4.3 Changes in Operations

This segment of the thesis consists of the interviewees' explanation of what the changes in operations have been and how to adapt to them. Respondents also reveal how their employees and their clients conformed to the changes. The changes have been inevitable for the normal conduction of business. Table 3 shows the main points of the interviewees' responses on a series of questions that have contributed to answer to the second research question of this thesis: *"What kind of changes in operations are freight forwarders dealing with?"*.

An exhaustive description of the main points shown in Table 3, as revealed by each respondent in the study, follows.

Table 3: Changes in Operations

3	Interviewee A	Interviewee B	Interviewee C	Interviewee D
Changes in Operations	Rerouting Procurement of New Carriers	Rerouting Change of Carriers Switching of Departing Hubs Looking for Better Options	Rerouting Multimodal Transport Change of Transport Mode Procurement of New Service Providers	Rerouting Change of Carriers Switching of Departing Hubs Change in the Length of Price Arrangements Procurement of New Carriers
Company Preparedness on Changes	Used to Changes Due to Past Issues or Influential Events	Easy to Conform as Clear Explanations Were Given	A Lot of New Arrangements to be Done	Used to Changes Due to Past Issues Advantages on Competitors as They Benefit from Different Hubs in Central Europe
Impact on Relationships with Clients	Nothing Major	Uncomplicated, Mutual Understanding	Understanding of Issues for Some Communications Back and Forth to Solve Issues	Mutual Understanding

Interviewee A

As Interviewee A points out, a rerouting has been necessary after the restrictions in Russian land and airspace have been implemented. If before the start of the war in Ukraine air shipments crossed the Russian airspace, after the start of it air freight carriers have begun to bypass the Russian territory both by the northern route, also known as the Arctic route, or by the southern route, thus flying southbound through Eastern Europe, avoiding the dangerous Ukrainian airspace, and crossing Turkey and proceeding eastbound until reaching East Asian airports. To alleviate the costs and to have more flexibility, the company has acquired new carriers that take care of the shipments. Those carriers are used to operate in the southern route and that has generated benefits to the respondent's company in terms of efficiency. The company's

employees have reacted positively to the changes. The logistics sector has been in turmoil for many years now, due to natural, accidental, or human driven events. From volcano eruptions to blockage of the Suez Canal, and to COVID. Therefore, professionals in the logistics sector are used to deal with challenges and difficult times and to adapt to them or adjust their performances according to the issues they are dealing with. Also, the relationship with their clients have not had an impact on changes in operations, as a long-lasting trust have been established and the company is there to find solutions for them.

Interviewee B

For Interviewee B company as well, rerouting has been one of the main changes in operations, using mainly the southern route mentioned before, as well as the acquisition of new carriers which are familiar with the routes to East Asia. For example, before the war in Ukraine started, one of the advantages of Finnish exports were the direct flights to East Asian airports. Now, having lost the access to the Russian territory, companies must consider the increased lead time to reach East Asia from Finland and, in many cases, the need to stop for refueling purposes along the way. One option that is being implemented is that some shipments are being transported by road to Central European hubs like Frankfurt or Brussels and from there air shipped to East Asia. That have generated the new cooperations with trucking companies. The company's employees conformed well to the changes as clear explanations and instructions were given, therefore the workforce reacted very well to the changes. Also, the relationship with the clients did not experience any negative impact, and this is due the fact that in most cases the company deals with other agents at the other end, and they are both experiencing the same issues. Hence, a mutual understanding has been spontaneously established.

Interviewee C

Interviewee C has pointed out how switching to multimodal transport has changed the way that the company is operating after the war in Ukraine started. Shipments from Finland are transported by sea freight either with containers or trucks from Helsinki or HaminaKotka to ports in Northern Europe, like Gdansk in Poland where, depending on the company taking care of the shipping, trains can still cross Russia and end up in East Asia. Alternatively, shipments are trucked to other hubs and from there reach East Asia through the southern Trans-Caspian route. This route goes from central Europe to China, crossing different countries. Cargo leaves Europe from the port of Costanța in Romania, arrives in Georgia and from there continues to

Azerbaijan, then crosses the Caspian Sea to reach Kazakhstan and finally China. All the new arrangements are possible thanks to the procurement of new service providers along the route to China. Employees within the interviewee's company had to make new arrangements and get used to a new way of organizing shipments. At the beginning, communicating news to clients was chaotic, as the situation was unclear and political decisions were not made yet, and unfounded rumours were circulating. After official statements the situation settled and since then there is a mutual understanding. There have been cancellations though, but in general the clients have been understanding as more official information started circulating.

Interviewee D

Interviewee's D company, as well as the other companies observed, needed to reroute their shipments to East Asia. To do so, they either bypassed Russia through the southern route or the Arctic route or trucking their cargo to hubs in different locations in Europe like Frankfurt, Brussels, Munich, and Budapest, and from there shipments can be made to East Asia. Due to the new situation, the company cannot benefit from a long length of fixed price arrangements anymore like it used to be with their usual carrier providers, in the region of 6 or 12 months, but prices need to be negotiated more frequently. The company started procuring new carriers that would allow their clients to reduce shipment costs. Due to past issues like Covid, the company was well prepared to face new the new circumstances and to deal well with changes in operations. An advantage for the company over competitors is that they can benefit from the possibility of operating in several hubs across Europe.

4.4 Solutions

In this section of the thesis are explained the solutions that freight forwarding companies come up with to solve the problems that they are experiencing since the war in Ukraine started. Those solutions find common ground with the changes that have been implemented by companies and delineated in the previous sub-chapter (4.3). This section also points out what are the kind of new cooperation they are having with their clients to mitigate the situation. Also, the interviewees were given the chance to express freely what they think the interviewer forgot to ask or simply they could add any comments to what they have said to answer the previous questions. Table 4 presents the main points of the participants' replies on a series of questions that helped to answer the third research question of the thesis: *“What are the solutions that*

freight forwarding companies have found to overcome the changes?''. A thorough report on the main points illustrated in Table 4, as explained by each interviewee, follows.

Table 4: Solutions

4	Interviewee A	Interviewee B	Interviewee C	Interviewee D
Solutions to Overcome the Changes	Rerouting Shift on Service Suppliers and Carriers Used More Shipments	Rerouting Finding Alternative Routes Acquiring New Carriers	Focusing on New Markets Making New Connections Exploring New Opportunities	Digitalization to Make Things Easier Finding Alternative Routes More Shipments Acquiring New Carriers
Cooperation with Clients to Mitigate the Situation	More Communication More Meetings with Clients	Finding New Solutions Through Cooperation	Developing Services New Kind of Contracts	More Communication More Meetings Reviewing Rates Every Month
Further Comments	Freight Forwarding Companies are well Prepared to Face Any Change Be Agile and Flexible	Expecting Worse Outcomes, but not Damage Done Importance of Finding Alternatives	Importance of Imports as They Play a Bigger Role	Lot of Uncertainty Long Time Commitment Not Possible Anymore Digitalization Helps

Interviewee A

The solutions that Interviewee A explains are partially found in the Changes in Operations sub-chapter (4.3.1). As previously discussed, a rerouting has been a necessary change and solution as well. Also, the acquisition of new carriers and shipping companies contributed to the changes and solutions implemented. Other solutions are that different carriers can be acquired according to specific needs or adapting different carriers' services to a distinct shipment and its needs. Another solution is that more shipments are conducted as, like previously discussed, loading space can be reduced for some shipments, therefore more deliveries are needed to accommodate all the goods that need to be exported. More cooperations with clients have been

established since the start of the war in Ukraine, in the form of more communication in general, weekly meetings, and more updates about the situation and status of shipments. As all the respondents have been given the chance to add something that they considered worth including in the interview, Interviewee A points out that freight forwarding companies are well prepared to face any change in the logistics and market environment, and that it is necessary to keep an interest in finding new solutions and options to deal with day-to-day problems.

Interviewee B

As well as for Interviewee A, the solutions that Interviewee B points out are partially explained in the Changes in Operations sub-chapter (4.3.2). A rerouting of shipments is a consequence and a solution to the problems generated by the restriction in Russian airspace. Acquiring new carriers is also a change in operation and a solution for the company. Another solution indicated by Interviewee A is that it is crucial to constantly look for alternative routes and new carriers that can guarantee better prices and convenient services. More cooperations with clients have begun since the war in Ukraine started and finding new solutions together with them to contain negative outcomes have been reinforced. Interviewee B has freely added that the situation that has been created with the invasion of Ukraine and all its consequences might have created an expectation of worse outcomes that did not happen, at least not on the respondent's company experience. Also, Interviewee B pointed out the importance on finding alternatives to compromised situations that an unexpected circumstance can generate.

Interviewee C

Solutions found to overcome the changes can be partially found in the sub-chapter Change in Operations (4.3.3). In addition, the company is concentrating in breaking into new possible markets, and to find new clients after losing some due to the outbreak of the war. To do so they are making new connections and developing new cooperations with operators in Central Asia. Exploring new opportunities is proving to be a good solution. The company have increased cooperation with the customers, for example developing services and increasing communication. To reduce the risk of financial losses, the company has discussed with their clients and obtained a clause stating that in case of cancellation of shipments they would not incur in any kind of penalty. Interviewee C adds that while exports are suffering from the restrictions after the war in Ukraine has started, most of the company efforts go towards importing services, which is keeping them busier than the export operations.

Interviewee D

As well as for the other interviewees' companies, the solutions in Interviewee 4 can relate to changes in operations that we discussed in the sub-chapter 4.3.4. Other solution that the company has found are the improvement in digitalisation of their services that have already started during the Covid period, in which remote working was necessary. Finding alternative routes and starting new collaborations with different carriers have proved to be necessary answers to issues, as well as organizing more shipments to deliver all the goods. The relationships with existing customers have developed with more communications, more meetings and starting the reviewing of the rates every month because the fluctuation of oil prices and the coming into play of different actors which can guarantee better prices. The respondent has pointed out that there is a lot of uncertainty in the logistics market and things cannot be foreseeable like in peaceful times. Long terms commitments are no longer possible as it used to be in the past. Interviewee D has also mentioned that digitalisation is necessary in the logistics sector, given the fact that the industry falls behind other sectors and a modernization is highly needed.

5 DISCUSSION

In this chapter the results of the research are discussed. The results presented in Chapter 4 are debated and interpreted, and comparisons are made on data provided by the respondents of the study, who are anonymously presented in the first part of the interviews. Similarities and differences between information collected are identified. Three different sub-chapters are introduced under "Discussion of the Results", each of which presents the discussion on the findings on the three research questions of the study which are:

1. What are the main challenges that freight forwarders operating in Finland are facing on exports to East Asia?
2. What kind of changes in operations are freight forwarders dealing with?
3. What are the solutions that freight forwarding companies have found to overcome the changes?

The three research questions were answered in the second, third, and fourth part of the interviews. The chapter continues with the "Discussion of Method", in which the author

explains and justifies the choice of qualitative research method in the form of semi-structured interviews.

5.1 Discussion of Results

The answers to the research questions are discussed based on the information provided by the respondents to the study and presented in Chapter 4. The three research questions have been summarized into shorter statements which are the titles of the sub-chapters presented below.

5.1.1 Impact on Business Operations

This first part of the discussion of results answers the first of the research question, which is: *“What are the main challenges that freight forwarders operating in Finland are facing on exports to East Asia?”*. All four interviewees mentioned the restrictions in Russian airspace and territory as the main cause that have impacted on their companies’ operations. Given the geographic position of Finland in regard of the location of East Asia in the world map, the fastest way to connect the two regions would be crossing the Russian territory, both by air and by land. Therefore, not being able to use the Russian domain, have had conspicuous repercussions on companies’ normal procedures.

Before of the restrictions were implemented, uncertainty and general worries were expressed by some of the respondents’ companies’ clients which, in two of the companies’ case, have seen cancelations on orders, and some clients have switched to ocean freight.

Companies have seen the increase in freight rates or surcharges which some carriers implemented as direct cause of the war. Also, the lead time has increased for all the ways of transport scrutinized, for example air freight, which must prolong the flight times. Figure 5 shows the map of the new air routes that avoid crossing the Russian airspace, for airlines departing from Helsinki and arriving in East Asian destinations like Tokyo, Seoul, Shanghai, and Hong Kong (Finnair, 2022).



Figure 5: Rerouting to Avoid Crossing the Russian Airspace (Finnair, 2022).

Another impact has been that many carriers started to load less cargo to be supplied with extra fuel, and for the companies whose business include rail freight, this last way of transport is the one that has had the biggest impact on them because of the war. One of the companies has not experienced any bad consequence, and one company has seen the air freight sector decrease in terms of orders, and two out of four of the respondents' companies experienced a decrease in volumes of goods shipped.

The goods that have suffered the most in exports to East Asia are perishable goods, pharmaceutical products according to two of the respondents' company, according to one forestry products and packaging materials, and one of them mentioned industrial machinery. Only one in four of the interviewees' companies have dismissed some employees because of the war in Ukraine, while one of them have even hired new people.

5.1.2 Changes in Operations

The second part of the discussion of the results answers the second research question, which is: “*What kind of changes in operations are freight forwarders dealing with?*”. According to all four of the respondents, a rerouting has been necessary to bypass the Russian territory. For air freight, the new routes either follow the Arctic route, especially for those flights going to Japan or South Korea, or the southern route avoiding the Russian, Belorussian (close ally of Russia and incurring in the same sanctions), and the dangerous Ukrainian airspace and reaching China. All of the four respondents mentioned that a change of carriers or procurement of new carriers or service providers have been one of the changes in operations. That has been necessary for cost saving reasons and for the need of making more shipments to compensate the reduction of cargo space to be able to have extra fuel, due to the increase of the distance to cover for avoiding the restricted regions’ airspaces. To reduce costs, three of the respondents declared that their shipments had to change departing hubs: cargo can be trucked to major hubs in Central Europe like Frankfurt or Brussels, and from there air shipped to East Asia in two of the cases, in one case the goods are trucked to Central Europe also, but the remaining part of the journey is made by rail, through the southern Trans-Caspian route. Of course, to reach Central Europe, the goods need to be transported by sea freight to ports that can be Gdansk in Poland or Lubeck-Hamburg in Germany, and from there trucked the final departing hubs. One respondent mentioned the fact that long contracts of 6 or 12 months with fixed price cannot be obtained anymore by service providers, as the price of fuel is constantly changing.

The impact of the new arrangements and changes in operations have been impacted on the respondents’ companies in different ways. For one interviewee, the employees conformed well to the new situation, as clear explanations were given, and communication have been improved. Two of the respondents agreed that their companies adapted well to the changes as they are used to changes because of past issues, for example Covid times, or the blockage of the Suez Canal. One of the respondents mentioned the fact that extra deals and new arrangements had to be done for employees to readjust to new practices.

All the respondents, on answering about the reactions of their clients on changes in operations, said that they were understanding because of being aware of the issue, even though at first there was a bit of confusion among clients, according to two of the two respondents, with even the loss of some orders.

5.1.3 Solutions

The third part of the discussion of the results answers the third research question, which is: *“What are the solutions that freight forwarding companies have found to overcome the changes?”*. The first part of this section has some points in common with the previous one (5.1.2.). One of the solutions that the four respondents indicated is that rerouting has been necessary, three of them said that acquiring new carriers has proved to be a valid countermeasure to overcome the complications that the war in Ukraine has created, two of them pointed out that making more shipments to keep the volumes high has been necessary. One of them has indicated that to keep the business robust, the company has focused on new markets and exploring new business opportunities in other regions and making new connections to seek favourable trade options.

On starting new cooperations all the four interviewees acknowledged that communication has heightened with clients as it has proved to be crucial on keeping good relationships with them, with more frequent meetings, phone calls or email exchanges. Two of them pointed out that cooperation has resulted in new type of contracts, with the revision of them every single month as, because of different factors linked to the war in Ukraine, long term contracts cannot be agreed anymore.

5.2 Discussion of Method

The author justifies the choice of method used in the form of qualitative semi-structured interviews and confirms that this was the best way to collect data and information for the purpose of answering the research questions. The research needed to be conducted through the direct testimony of professionals in the freight forwarding industry who are the best source of information for the kind of study carried out. This kind of interview gives the interviewer a good amount of flexibility, having the chance to ask further questions apart from the ones predetermined and to ask clarifications in case of doubts.

As anticipated in chapter 3.3, the purposive sampling model has been implemented. This model, largely used in qualitative research, implies that the potential respondents of the study are identified through a defined selective criterion, and not in a random basis. The professionals approached with the purpose of obtaining an interview are employed in freight forwarding

companies operating in Finland whose services include one of all the ways of transports that are taken into consideration for the study, and possibly belonging to the Finnish Freight Forwarding and Logistics Association. The professionals were contacted by email by the author and for those who agreed to participate a consent form has been sent to be read and signed as well as the interview questions. The interviews were conducted in an agreed day and time using the web platforms Microsoft Meats or Zoom.

The interviews were conducted according to plans, and the interviewees showed strong and competent knowledge on the subject discussed, and they were conducted in a calm and noise-free environment on both sides with steady internet connection which allowed the author to perform an accurate transcription of the interviews that were recorded, and to take notes during the interview in which the author was not granted the permission to record it.

The interviews conducted were four, and in the author's opinion the material collected was accurate and exhaustive to be used to finalise the study. The data collected was reviewed, and to make the analysis easier and to find similarities among the respondents' answers, the author has used codes to identify correlations, in the form of highlighting areas of the transcriptions and the notes in a specific colour for the common parts.

6 CONCLUSIONS

The aim of this study has been to discover what are the actual challenges that freight forwarding companies are facing on export to East Asian countries and how they are tackling the issues that exporting companies are encountering on reaching their customers in East Asia. It has been an opportunity to demonstrate how logistics professionals can solve problems to critical situations that affected the international trade industry. Below, the conclusions on each of the three research questions are presented.

What are the main challenges that freight forwarders operating in Finland are facing on exports to East Asia?

The main challenges that freight forwarders are facing on exports to East Asia are the closure of the Russian airspace and territory which left EU and other western countries operator to find

alternatives to reach East Asia, the increase of freight surcharges that hit the sector, customers concerns and order cancellations, and drop in demand. Rail freight and in smaller numbers air freight are the way of transport that have suffered the major impact, and the products that encountered more problems are perishable goods like fresh food, pharmaceutical products, forestry products and industrial machinery. Some companies have seen decrease in volume of exports, and in some cases, employees have been dismissed.

What kind of changes in operations are freight forwarders dealing with?

The main change in operations that companies face is rerouting to avoid the Russian airspace and territory, using either the northern Arctic route or the southern route. Both routes have longer flight times, so to be able to deliver fast via air freight, the loading space of aircrafts have been reduced to permit to get extra fuel as the flight times are longer. Or, especially for the southern way, companies had to find new carriers that allow them to finalize their shipments to East Asia or adapting case by case according to the needs of their clients. Many companies delivered their goods to hubs in central Europe by truck to then be shipped to East Asia via air freight or rail freight. Some companies had to rediscuss their fixed price plans with carriers, which will not agree to have long price arrangements because of the constant increase of fuel price and uncertainty about the future. Companies scrutinized were well prepared to face the changes as they have experienced other changes in the past, so it has been easy for them to conform with the changes. The relationships with their clients have been easy for many, especially when the situation was clearer and the sanctions were implemented, at the very beginning of the war, when the consequences were unclear, clients were confused and preoccupied.

What are the solutions that freight forwarding companies have found to overcome the changes?

Solutions that freight forwarding companies have found are connected to the changes mentioned above. For sure rerouting is one of them, in addition, seeking for different routes and acquiring new carriers have helped them a lot. For certain shipments, especially perishable goods, the lead time had to be kept acceptable so, even though the flight times have increased due to rerouting northbound or southbound, the goods can be shipped anyway, by loading less cargo and increasing the number of shipments. Solutions are found also on making new connections in different markets and exploring new opportunities as an alternative to loss of orders.

Companies have started to improve the communication with their clients in the very beginning of the war in Ukraine, when the situation was still unclear, and they are keeping doing so, with more frequent meetings with customers, not necessarily in person but via online platforms, emails, and phone calls. Digitalization has been developed to make deals easier in a sector which was staying behind other industries.

For freight forwarding companies has been a challenging time since the war in Ukraine has started. The geographical position of Finland can be perceived as disadvantaged compared to other countries when dealing with East Asian countries. Before the sanctions were implemented all the cargo shipments were crossing the Russian airspace and land territory to reach their destination to East Asia faster. Not being able to do so anymore has caused a big change in the way that goods are shipped to East Asia, as previously explained. It must be reminded that also the Belarusian territory and airspace are restricted areas for cargo shipments, as well as the dangerous Ukrainian territory and airspace. Rail freight has been by large the way of transport that has been affected and that had to change the most in terms of operations and solutions, having to reroute their shipments through central and southern Europe, but it also has given the rail freight sector a chance to expand their markets in other Asian areas. Air freight has been moderately hit also. The road freight has seen an increase of their services as freight forwarders used their assistance to ship goods to different hubs. Companies are facing increase of costs for their services which influence all the supply chain, and consequently affecting price of goods for consumers. Freight forwarding companies have proven to be well prepared to face the changes and finding solutions. They have dealt with other crisis in the past, for example the impact on Covid on world trade, or other crisis created by natural events or accidents, and they reduced the negative consequence of them thanks to their actions. This last tragic event is giving freight forwarders an opportunity to further improve their knowledge and expertise that they can use in the future to face new potential threats for the logistics industry. It has been also a chance to improve the way they deal with clients and a chance to better the technology within the industry.

6.1 Limitations of the Study

Even though the author thinks that the research has been completed in all its aspects and in answering the research questions, he must point out the fact that it has been very challenging to find respondents to be interviewed, although several professionals in the freight forwarding

sector have been contacted without receiving a reply. Opinions of one or two more respondents would have been well included in the study.

6.2 Suggestions for Further Studies

Further studies on the subject could be made on how freight forwarding companies choose the carriers to implement services and how to develop the integration of multimodal transport services that have been used since the closure of the Russian airspace and territory, to identify key factors that can allow companies to reduce costs and simplify the exporting of goods steps. More studies could be done on observing which areas in Asia could be interested in political crisis in the future that could affect the international trade normal flow of operations. Additional studies can be conducted to find out new regions and new markets where products can be exported.

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APPENDIXES

Appendix 1

INTERVIEW GUIDE

INTRODUCING QUESTIONS

Could you please introduce yourself profession wise?

How long have you been working in the freight forwarding sector?

What were the main destinations of your exports to East Asia before the war?

IMPACT ON BUSINESS OPERATIONS

What are the main challenges that your company is facing in exports to East Asia after the war in Ukraine started?

What is the way of transport that had the major impact considering the new circumstances?

Has there been a decrease in terms of the volume of exports to East Asia?

All things considered, which industries are suffering the most?

Have there been any changes in routing to East Asia since the war started?

Has there been any redundancy or job loss in your company because of the changes?

CHANGES IN OPERATIONS

What kind of changes in operations freight forwarders had to deal with, specifically?

How prepared was your company to face the changes and how did the employees adapt?

How did you communicate the changes to your clients and what were their reactions?

SOLUTIONS

What are the solutions that freight forwarding companies have found to overcome the changes?

Is there any kind of cooperation between your company and your clients to mitigate the situation?

Would you like to make any further comment, or would you like to add something that I forgot to ask?

Appendix 2

Consent for Participation in Interview Research

I volunteer to participate in a research project conducted by Enrico Piu from Arcada University of Applied Sciences. I understand that the project is designed to gather information about academic work for the conduction of a research project.

1. My participation in this research project is voluntary. I understand that I will not be paid for my participation. I may withdraw and discontinue participation at any time without penalty. If I decline to participate or withdraw from the study, there will be no consequences.
2. I understand that if I feel uncomfortable in any way during the interview session, I have the right to decline to answer any question in the discussion or to end the interview immediately.
3. Participation involves being interviewed by Enrico Piu from Arcada University of Applied Sciences. The interview will last approximately 20-30 minutes. Notes will be written during the interview. An audio tape of the interview and subsequent dialogue will be made. If I do not want to be taped, I will not be able to participate in the study.
4. I understand that the researcher will not identify me by name in any reports using information obtained from this interview, and that my confidentiality as a participant in this research will remain secure. Subsequent uses of records and data will be subject to standard data use policies which protect the anonymity of individuals and institutions.
5. Faculty and administrators from Arcada University of Applied sciences will not be present at the interview but will have access to raw notes or transcripts if needed. This precaution will prevent my individual comments from having any negative repercussions.
6. I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study.
7. I have been given a copy of this consent form.

My signature

Date

My printed name

Signature of the Investigator

For further information, please contact Enrico Piu at piuenric@arcada.fi