

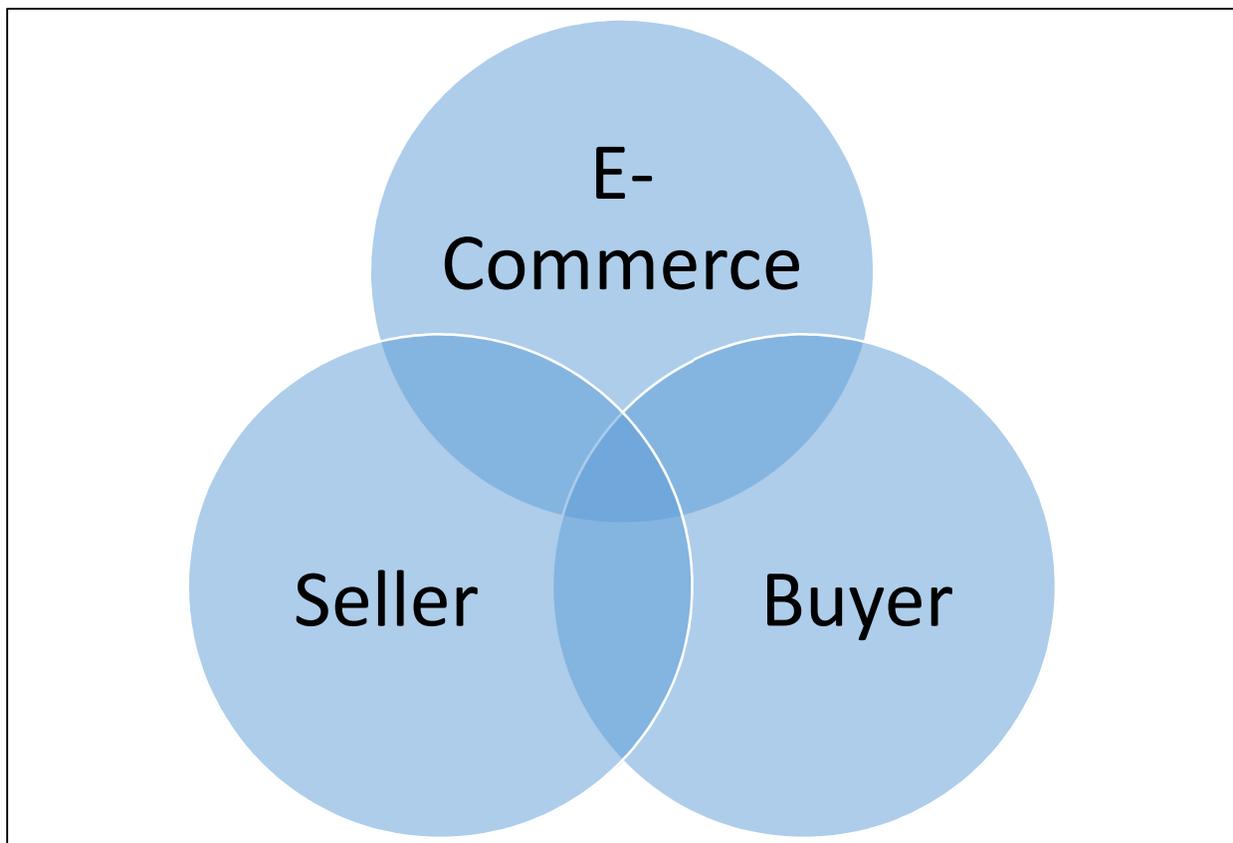
University of Applied Sciences Van Hall Larenstein

E-commerce and the International Timber Trade:

Realities, failures and opportunities for FORDAQ and Alibaba

Stefan Julius

Keywords: B2B e-commerce, international timber trade, FORDAQ



Sustainable E-Commerce Relationship by Julius

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University of Applied Sciences Van Hall Larenstein

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Preface

First of all, I would like to thank all people who have supported my work and have motivated me through the whole research process of this bachelor thesis.

I would like to thank, in particular, Drs. Heinz Evers who supported me during the time of my research. His patience, his supervision, his serious critiques and ideas towards the content and the structure of this work were indispensable.

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Pour Elise, ma mère. | Für Heidi, meine Freundin. | For Lena, my love.

Abbreviations and Vocabularies

B2B:	Business-to-business is the interaction between two companies
B2C:	Business-to-customer is the interaction between a company and a customer
C2C:	Customer-to-customer is the interaction between customers
SME:	Small-Medium-Enterprises with fewer than 250 employees and a lower turnover than 50 million euro, “and/or an annual balance sheet total not exceeding 43 million euro.” (European Commission 2005)
Commodity:	Term for a good produced, traded and shipped in bulk. Commodities can range from food such as meat, grain or coffee to raw materials. These include round wood or timber. They are often available on the market as goods without any differentiation in the quality. These products are often mass produced and standardized.
Specialty:	Specialty products are the opposite of commodity products. These products are traded in a low quantity and a high quality. Therefore, the differentiation of the quality across the market is individual and depends on the needs of the industry.
“Noisy”	It is a synonym used mainly in social media. “Noise” disturbs the essence of any service in the internet with unreliable information, e-mail spam or bad search results.

Abstract

The aim of this bachelor thesis is to investigate and identify the current status and opportunities of e-commerce services especially for the international timber trade.

In the first part of the report, the literature review gives an overview of the historical beginnings of B2B e-commerce services in China and Europe, about its functionality and its revenue model. It describes an overlapping conception in building trust by providing information for the negotiation process and by supplying secure payments and delivery options. What these clarify is that the trade with timber products, under control of the four pillars of an e-commerce, will work for products from every other industry.

In the second part, expert interviews and a questionnaire with timber professionals are analysed. The analysis resulted in a clear picture of the current situation, of the benefits and of the opportunities a third part service company has for e-commerce services exclusively for the international timber trade is offered from the results.

These are discussed in the third part of this thesis and result in the conclusion that the main traded products are commodities and that FORDAQ is the main player with the highest impact on the international timber trade. Although FORDAQ still does not offer the whole e-commerce process the main intention to join is to make contact, to find other companies and to get referrals from FORDAQ's website. In summary, the benefits are identified by activating more producers of the commodity business and by connecting the producers and buyers directly without intermediaries.

In conclusion, this thesis argues that when companies outsource the e-commerce workload to a third party service company they will benefit from it.

Summary

This bachelor thesis was designed to give insights on e-commerce services for the international timber trade.

In the first two chapters, the reader is provided with introductory information about the historical development of e-commerce services in China and Europe. This information is set into context of thematically related researches which have already been done in the past.

General implementations of e-commerce services in the World Wide Web are described, while it deepens into the more specific timber related parts as it proceeds.

Chapter three describes the planning, implementation and processing of the literature and desktop research. This chapter additionally gives an overview about the applied methods for the accomplished expert interviews and questionnaire. It explains how the qualitative results from the interviews and the quantitative results from the questionnaire are processed and assessed for the further use in this research.

In the second part of this bachelor thesis, the material of the expert interviews and the results of the questionnaire are combined with the information from the literature research and the desk research. Together they are implemented in the findings chapter. The findings have been included for each research question.

In chapter five the findings of each research question are discussed critically.

The conclusion answers all research questions regarding the current state of e-commerce systems for the international timber trade, the benefits timber traders have as members of e-commerce systems and the opportunities a third party service company has when they open e-commerce services to timber traders with no account on these services.

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Keywords: B2B e-commerce, international timber trade, FORDAQ, Alibaba

1. Introduction

With the internet and its huge impact on the development of globalized markets, it seems inevitable for international timber traders to follow and seek new ways to buy and sell their products. One option to follow these needs is the utilisation of e-commerce services like FORDAQ and Alibaba.

Besides the fact that companies face similar issues in regard to the building of mutual trust during negotiation, payment- and delivery-processes, e-commerce services can support companies to find more potential prospects. On the downside, it seems that trust building and trust expansion to become even more difficult using e-commerce systems because of the lack of personal contact.

By drawing an outline of existing e-commerce systems and their impact on the international timber trade, this research paper deals with various e-commerce systems as new business-to-business relationship management tools. This research focuses on the influence of e-commerce for the international trade of timber.

An explanation of how a B2B relationship between buyer and seller over such an e-commerce system precedes the research which will give an overview about the historical evolvement of the e-commerce system Alibaba in China with its special environment. Afterwards, e-commerce in Europe with its early start in the internet commercialization age with one of the first e-commerce systems "Internationale Holzbörse" IHB is explained.

1.1. E-commerce

E-commerce is the abbreviation for electronic commerce. The term stands for the electronic trade of information and products over the internet. This research divides e-commerce into internal and external e-commerce.

1.1.1. Internal

Internal e-commerce service is the synonym for an electronic platform, where companies can share and change information through an intranet. It can identify how to optimize a production process.

Additionally, e-commerce can help an organization with different departments or locations to exchange available resources. Using this system, companies can order a new product amount, change the production and delivery dates and reroute locations in real time. In other words, the user of internal e-commerce has access to the complete supply chain of one product. (PAULINE PUVANASVARI RATNASINGAM 2001)

1.1.2. External

External e-commerce services give the option to buy and sell products online. The most famous and leading services are Amazon (Worstall 2013), eBay (Statista 2014b) and Alibaba (Loeb 2014).

The online service eBay is a C2C and a B2C auction platform. Amazon is a mixture of a B2B and a B2C marketplace. Both services give the traders opportunities to post their offers online making them available to potential buyers.

Especially e-commerce places like Alibaba and FORDAQ are specialised on connecting B2B partners. On these e-commerce systems purchasers and suppliers have the possibility to buy or to sell products.

Alibaba already plays a key role for the international timber trade, but mainly for Chinese companies. This might be due to the fact that Alibaba has its origin in China.

The trade with timber is not Alibaba's main business, as it is for FORDAQ. FORDAQ is an exclusively timber related e-commerce system. Compared to other e-commerce services, FORDAQ and Alibaba have the biggest influence on the international timber trade.

FORDAQ

FORDAQ is a Belgian company which started its services in 2003. It became one of the largest e-commerce services for the international timber trade after the company had bought the address collection from the German "Internationale Holzbörse – IHB" in 2006.

Alibaba

In the industry-wide B2B trade Alibaba is the main e-commerce service. It was founded in 1999 as a B2B platform for the Chinese market. Nowadays, it has revolutionized the B2B relationships and changed the way of trading world-wide. (Stuart Crainer 2010)

With Alibaba's way of connecting companies through their e-commerce system, companies are now able to find each other and conclude deals over the internet.

1.2. The Traditional Timber Trade

Overall does e-commerce and traditional timber trade differ in the type of communication between the parties and the use of communication tools.

The way of doing traditional timber trade is comparable to the trade with all other goods.

Characteristic of every trade are recurring personal contacts between purchasers and suppliers in the supply chain. Furthermore, companies see the importance of the cultivation of contacts of the control of their profitable and trustful business contacts. Thus, they visit or meet each other at least once a year. Performed successfully, these contacts often guarantee a steady flow of material and products over decades.

The traditional timber trade is characterised by building long term relationships. The personal contact and communication between negotiation parties is influenced by the product portfolio of the purchaser's stock.

1.3. Objectives

The first objective of this research is to provide information for international timber traders and to give insights about the current situation of e-commerce services in general.

The second objective has the goal of informing about beneficial opportunities of e-commerce services for the international timber trade.

Finally, this research has the objective of finding solutions to make e-commerce systems more accessible for the traditional timber trade.

1.4. Problem Definition and Research Questions

E-commerce is a trading channel, which offers advantages and disadvantages for B2B relationships of all business segments. This research deals with the question why especially timber professionals use e-commerce as a main trading channel or why they never use it.

As a matter of fact, the final analysis of this research shows options how a third party company could help companies to buy or sell their timber products via e-commerce services. Actually not every timber trading company is member of an e-commerce service. A third party company could offer its availability on several e-commerce services to help such a non-member by selling or buying goods via

these e-commerce services. Additionally, there is a possibility for such an outsourced service to offer different other services especially for the timber trade on e-commerce services.

E-commerce and the International Timber Trade: Realities, failures and opportunities for FORDAQ and Alibaba

I. How is the current situation of e-commerce services for the international timber trade?

- a) Why has e-commerce become the main B2B trading possibility in the World Wide Web?
- b) Which e-commerce services have the highest impact on the international timber trade?
- c) How does e-commerce build business relationships?
- d) How does e-commerce generate an income?
- e) How does e-commerce work exclusively for the international timber trade?

II. How can the international timber trade directly benefit from e-commerce services?

- a) How should these e-commerce places work for the international timber trade?
- b) Which timber trade related services have to be added?

III. How a third party company can make e-commerce services accessible to traditional timber trader?

- a) Which product groups?
- b) What e-commerce services for which located markets?
- c) What services can be outsourced?

1.5. Structure of the Report

The answers of these research questions will be the topic of the next chapters.

First of all, the literature review gives an overview about timber trade related e-commerce services and its main players FORDAQ and Alibaba.

Secondly, the methods chapter informs about the research planning, its implementation and its results.

Thirdly, the findings chapter states the proofs that were discovered within this research. As a consequence all discoveries are reflected in the discussion chapter.

Finally, the conclusion chapter gives an overview over the whole research project.

2. Literature Review

The internet and its influence on the society is still in the stadium of growth. The leading online shop Amazon and the leading auction platform eBay, have changed the purchasing behaviour of private individuals. Consumers are now online buying and bidding to get their bought and auctioned goods by home delivery. (Statista 2014b)

Currently, Alibaba is changing the B2B relationships and trades worldwide by its increasingly global importance. Companies from all over the world are now able to connect and can conclude deals. Furthermore, these established contacts can result in long-term business relationships using Alibaba.

Nevertheless, in the B2B market are the opportunities of an easy and unproblematic information, negotiation, paying and delivery procedure more complicated than on B2C market places like Amazon or eBay. (Zhao et al. 2008)

Additionally, old researches showed that e-commerce platforms are not places where deals are concluded. Most websites are used for building relationships between business partners. (Martinsons 2002) The literature that deals with these processes is limited. For this reason it is the

goal of this research to close the information gap. This is solved by the use of information mainly from the internet as it provides the latest information.

The following chapters are divided into a description of the historical evolvement of Alibaba in China towards the current situation of e-commerce services in the World Wide Web. Moreover, to depict the advantages and disadvantages of Alibaba and FORDAQ, their different income strategies will be illustrated. To be able to understand e-commerce services exclusively for the international timber trade, a historical overview of FORDAQ's evolvements leads to the current situation of today.

2.1. Chinas e-Commerce Evolvement and Influence

In June 2011 Alibaba was within the top three of online retail and auctions markets. (Statista 2014b) It has a value of \$200 billion and was 2011 the biggest internet company in China. In comparison, the worldwide biggest internet company Google has a value of \$410 billion. (Statista 2014a) This gives an impression on how big Alibaba is.

One of the reasons why Alibaba has such dominance is because it originally arose in China. In the early nineties when the internet had already been invented, the Chinese government tried (Leonard Kleinrock 2010) to connect its industrial centres all over the country through a digital network. This still can be recognised today in the company names found on Alibaba as the industry centre names have to be part of the company names. For example means Shenzhen as part of a company name that the company is located in the Guangdong area.

Due to the Chinese government starting to gather data about its domestic companies, the information was stored and made available to the public through different governmental organizations. The promotion of electronic market culture by the Chinese government since 1993 has led to the realities of today.

These early innovations have helped especially today's Chinese SMEs¹. The Chinese companies still benefit from this huge amount of stored information. Companies can easily gather information about sellers and buyers. Alibaba for example used this stored data for their business success. Since the beginning the company has been functioning as an intermediary that connects companies and helps them build business relationships. Chinese SMEs can benefit from services like Alibaba. They expand their businesses on the domestic market and in addition with the expansion of Alibaba, it helps them enter global markets as well.

Even though, the purchasing, the payment, the exchanging and the trading habits in China are different compared to the European Union and even though the Chinese IT structure is not comparable to the IT structure of the European Union (Zhao et al. 2008). The innovation in the Chinese e-commerce environment is faster.

Alibaba dominates the worldwide B2B e-commerce service due to its huge variety of product categories, its steady work on innovation of service its addition of companies to their service and by aiming towards a completion of the fulfilment process. (Figure 1)

¹ small-medium-enterprises

2.2. B2B e-commerce systems

2.2.1. The E-Commerce Process Par Excellence

The different transaction processes in Figure 1 shows the complex trade over an e-commerce system.

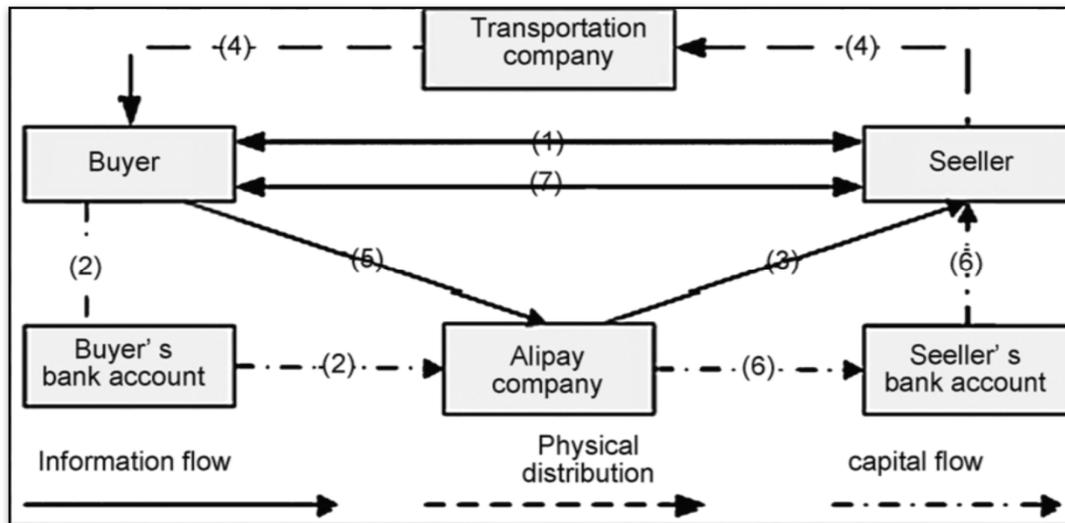


Figure 1 The fulfilment process on Alibaba (Zhao et al. 2008)

The process can be described as follows: First of all, the seller and the buyer need to have signed a sales contract. Then the buyer will deposit the amount of money from his own bank account into AliPay (Bloomberg Businessweek 2014b). As a next step, the seller is responsible to organise the delivery of the goods to the buyer. The delivery service is not provided through Alibaba.com. After the arrival of the goods and the confirmation that the expectations of the buyer were fulfilled, the buyer confirms the correct delivery to AliPay. Finally, AliPay will disburse the money amount to the seller. At the end both parties rate each other.

2.2.2. E-Commerce Controlling Features and Assurance

The knowledge about the security guarantees that Alibaba can assure through the whole process is very important. (Figure 2) Buyer and seller have a low guarantee on the information provided by Alibaba, with a medium security through the negotiation process and with a high impact on the payment and delivery. (Zhao et al. 2008) Alibaba already builds trust between the buyer and the seller. Although, the information is not accurate and the negotiation process has a low controlling complexity, the most important parts of the transaction are the payment and the delivery, and these can be assured through AliPay.

Transaction Controlling Complexity \ Process	Information	Negotiation	Payment	Delivery
Low	High reach and value of information			
Medium		Matching buyers with sellers and delivering exchange mechanisms		
High			Risk control for Secure and reliable transactional process	Collaboration management

Figure 2 Controlling Complexity B2B E-Market Model (Zhao et al. 2008)

2.3. Different E-Commerce markets the same income strategy

All named e-commerce markets provide free access to their e-markets. Free access does not mean that registered members have full access to all advantages these e-markets provide. To get full access to the advantages, the registered users have to pay money.

To describe the different income strategies, this research paper concentrates from now on on FORDAQ as main e-commerce service for wood professionals and Alibaba as the most famous and most innovative e-commerce service.

2.3.1. FORDAQ's strategy

FORDAQ's free accounts are called discovery membership. Registered international members have the opportunity to upgrade their account to a bronze, silver or a gold account. A higher upgrade raises the company's visibility and finally an upgrade into the international user section ascertains a higher access to the content on FORDAQ. (Fordaq 2014a)

The buyer does not have the possibility to get a free account. The potential buyer needs to choose from bronze up to gold in order to get access to any feature (Fordaq 2014b).

FORDAQ also sells information to its customers with timber trade related information about the import and export of wood products from the main timber trading markets. (Fordaq 2014c)

Besides all, FORDAQ offers its customers the optional service, to create their own website. (Fordaq 2014d)

The main reason that companies choose FORDAQ as e-commerce system is the traffic on www.FORDAQ.com and the access to wood professionals from all over the world.

2.3.2. Alibaba's strategy

The paid gold membership on Alibaba offers much more possibilities in comparison to FORDAQ's business model. (Figure 3)



Figure 3 Alibaba's Gold Supplier Membership

Alibaba has a paid account possibility for suppliers and two kinds of free memberships. The free memberships differ between unverified and verified status. (Alibaba 2014)

The higher the membership status is, the better the possibilities for buyers on Alibaba. A gold membership offers the following options to clients:

- find products easier
- have a better access to the content
- gain and have higher confidence for future deals
- have access to all offered business tools
- become trained and have a better access to the customer services
- promote the company or its products easier

2.4. European E-Commerce and International Timber Trade in Historical Context

With the help of “Web-Archive.org “, also known as “ways back machine” it is possible to follow up on the development of websites.

FORDAQ and IHB have been the main players in Europe’s e-commerce business. From the beginning, IHB had the exclusive concept to build a service for the international timber trade unlike FORDAQ (Web Archive 2001).

IHB was the first to establish a network for international timber traders before the internet was commercially available in 1995. (Leonard Kleinrock 2010). The German IHB fee-based network went online in 1996 and offered wood professionals the chance to connect with each other. The advantage for IHB was the huge amount of members they had gathered in the years before the internet had not yet been commercially available. Information was the critical part for a successful start of the e-commerce service. The site became successful and the IHB used the huge amount of traffic on their site to gain revenue with advertising and positioning their paid members before the normal members.

FORDAQ was founded in the year 2000 and its aim was to build an e-commerce website where trades could be concluded. The company had the same goal as Alibaba had in 1999.

“ABOUT US

FORDAQ IS NOT OWNED OR CONTROLLED BY MEMBERS OF THE WOOD INDUSTRY.
FORDAQ WAS CREATED IN EARLY 2000 BY A TEAM OF INDUSTRY EXPERTS AND COMPUTER SCIENCE SPECIALISTS.
NO SHAREHOLDERS OF THE COMPANY OWN, WORK OR HAVE INTERESTS IN COMPANIES WITHIN THE WOOD TRADE.

OUR COMPANY MISSION :

- TO PROVIDE A HIGHLY ADVANCED ELECTRONIC PLATFORM TO FACILITATE BUSINESS IN THE WOOD MARKET, BACKED BY THE MOST UP-TO-DATE HARDWARE AND SOFTWARE SOLUTIONS AVAILABLE.
- TO ENSURE ALL PARTIES TRANSACTING ON THE PLATFORM TOTAL SECURITY AND CONFIDENTIALITY OF THEIR DATA.
- TO REMAIN NEUTRAL AND EQUIDISTANT FROM THE PARTIES’ COMMERCIAL INTERESTS, GRANTING TO ALL OF THEM FAIR ACCESS TO THE PLATFORM FULL FUNCTIONALITY.
- TO PROVIDE THE PARTIES WITH MEANS TO SIGNIFICANTLY REDUCE THEIR TRANSACTIONAL COSTS AND BUSINESS RISKS

FORDAQ PARTNERS WITH LEADING COMPANIES TO BRING YOU THE MOST EFFICIENT SOLUTIONS



COMPUTER SCIENCES CORPORATION (E-BUSINESS STRATEGIES, SOLUTIONS AND TECHNOLOGIES)



ARTHUR ANDERSEN (CONSULTING)



TRANSWIDE (TRANSPORT NETWORKING)



SILVERSTREAM (EBUSINESS PLATFORM)

Figure 4 FORDAQ’s 1st About Us Page 2000 (Web-Archive 2014)

Figure 4 provides a general e-commerce system, the content declares that it does not matter if an e-commerce service is built for an exclusive industry or not. (Figure 4)

The conception of the IHB in a capture from the 31st of May 2000 states that the company only wants to be a forum for wood trading professionals. (Web-Archive 2014) FORDAQ bought IHB and included its customer base in 2006 (Fordaq - News 2006).

After this acquisition, the Managing Director of FORDAQ Mr. Benoit Nieuwenhuys stated:

"The goal of the acquisition of IHB by FORDAQ was to create a common online trading platform that could be used by all parties in the wood industry and trade to do business across Europe and the world. This goal is now achieved in Europe. We have a lot of exciting projects this year to extend our reach in other regions of the world and launch new services." (Fordaq - News 2006)

Today is FORDAQ not a marketplace where trades will be concluded through its platform. It simply connects wood professional business partner with each other on payment of a fee.

2.5. E-Commerce Services for the International Timber Trade

It is generally agreed that the European e-commerce service FORDAQ (Bloomberg Businessweek 2014c) is the biggest e-commerce service exclusively for timber traders from all over the world.

On the second position for timber trading professionals is Alibaba (Bloomberg Businessweek 2014a). Alibaba exerts a huge impact on the trade with timber products in all kind of variations. (Alibaba 2009)

Finally there are TradeIndia (LinkedIn 2014) and IndiaMart (Bloomberg Businessweek 2014d). Both e-commerce systems are specialized for the domestic Indian market.

The idea of the Indian e-commerce systems by connecting buyers and sellers is the same as at FORDAQ and Alibaba. The main offers and requests onto TradeIndia and IndiaMart come from Indian and British companies. This completely differs to FORDAQ and to Alibaba. FORDAQ is serving wood professionals from all over the world and Alibaba divided its reaching markets due to different domain names to pay attention to the globalization and as a marketing strategy. The domain name www.alibaba.com is for the international market and www.China.Alibaba.com is only for the domestic Chinese market. (Zhao et al. 2008)

However the research results of the literature search did not support the expectations that there is actual literature available which gives an overview on the current situation of e-commerce services in the internet.

3. Methodology

This research was conducted 2014 at the University of Applied Sciences Van Hall Larenstein in the Netherlands. The subject was to research the realities, failures and opportunities e-commerce services like FORDAQ and Alibaba have exemplified at the international timber trade.

3.1. The research questions

To answer the subject, three main questions were developed. With the help of the sub-questions each research question was unravelled.

On one hand, to answer the sub-questions a literature research, a desktop research and a qualitative expert interview was performed. On the other hand, seven experts of the timber trade were recruited for expert interviews. In addition to the expert interviews, a quantitative questionnaire was conducted.

3.2. The Expert Interviews

The expert interviews were performed from in spring 2014. The description order is ascending from the first interview until the last interview.

The interviews with experts of the international timber trade business supported this research voluntarily and answered questions about the realities, the failures and the opportunities that e-commerce services can have for the international timber trade.

3.2.1. Interview set-up

Although the interviews were structured in a document they were performed unstructured. The structure (ANNEX I and II) was used to have a red line through the interview and for the later processing of the answers. The expert interviews paid attention to the knowledge and involvements of the interviewees in relation to the timber trade in general and especially its combination with e-commerce services. The flow of the dialog was natural and structured by the questionnaire in place. (ANNEX I and II)

The reason why the dates for the interviews alter is that different kind of experts were interviewed. In spring 2014 gold and bronze members from the FORDAQ e-commerce service were interviewed. Similarly, in autumn 2014, most of the interviewees were members from non-paid e-commerce accounts at FORDAQ and Alibaba. They were interviewed even though they were traders without any account on e-commerce services.

The interviewees work for companies of the international timber trade. The recruitment was from different segments out of that industry as well.

All interviewees heard about e-commerce services before. For preparation purposes the interviewer sent the questions to the interviewees a few days beforehand.

3.2.2. Interview approach

Most of the expert interview questions performed in summer 2014 had the goal to get answers on how e-commerce works. As a result, the main questions and their sub-questions were answered. Despite that, the performed interviews in winter 2014 had a different approach. The interviews were performed to get answers on how e-commerce works as well. But the companies were asked about their thoughts on outsourcing the workload of e-commerce.

3.2.3. Interviewed companies (summer 2014)

An equally significant aspect of the companies which were interviewed at that time was that they are all commodity traders and besides Mr. Agarwal they all have a paid membership at FORDAQ platform.

Puidukoda (Estonia)

The main business of Puidukoda is planing and selling the NORDIC softwood species Spruce (*Picea abies*) and Scots pine (*Pinus sylvestris*) to Europe, China, India, Japan and Australia. Besides planing of the timber with different kind of profiles, Puidukoda has a coating production line as well. The products Puidukoda offers on the market are of the commodity segment.

The interviewee Mr. Hendrik Moora is as sales director for Europe and responsible for the markets in the Netherlands, United Kingdom, Italy, Austria, Spain, Latvia, Lithuania and Norway.

The main e-commerce channel is the gold account on FORDAQ. The company has on Alibaba a standard non-paid membership. (Stefan Julius 2014b)

Lindner TIMBER (The Netherlands)

Lindner TIMBER is a Dutch company was founded 2007 by the interviewee Mr. Onno Brantjes in Arnhem. Its company's main business is the supply of round wood from Germany and the Netherlands to Europe, India and China. The biggest product segment, because of its amount, is the commodity business, mainly for the paper and pulp industry. Nevertheless specialty products, like high quality beech round wood for the Indian furniture market (Interview Mr. Agarwal), are also traded by the company.

The main species Mr. Brantjes is exporting are European beech (*Fagus sylvatica*), Poplar (*Populus spec.*), European larch (*Larix decidua*), Scots pine (*Pinus sylvestris*), Norway spruce (*Picea abies*) and Douglas-fir (*Pseudotsuga menziesii*).

Mr. Brantjes was the initiator of this bachelor thesis, because he wanted to know what kind of services could be offered to companies which are not registered on e-commerce services like FORDAQ or Alibaba.

Since 2006, Mr. Brantjes' company has a bronze membership on FORDAQ and a standard non-paid account on Alibaba. (Stefan Julius 2014e)

The round wood trader Mr. Abidjan Agarwal (India)

The Indian round wood trader Mr. Agarwal was interviewed, because he is one of Lindner TIMBER's main customers. Mr. Agarwal is a specialist in the commodity business. By buying and chipping Poplar from Europe for the Indian paper and pulp industry. Additionally, Mr. Agarwal's company buys specialty products like European beech or Southeast Asian Teak for the Indian furniture industry. (Stefan Julius 2014f)

3.2.4. Interviewed companies (winter 2014)

Having considered the different purposes of the interviews which have been performed in summer 2014, the interviews from this chapter were with companies of the specialty business. Other than the company Biomaderas, all other companies are not registered on or active on e-commerce systems.

Girsberger AG (Switzerland)

For the Suisse Company Girsberger AG the solid wood purchaser Mr. Johannes Wuchner has been interviewed. Girsberger AG is well known for their dining room and bureau office furniture production. Two years ago started the company trade with round wood and boules sawn in their

sawmill or bought from Germany, France, Czech Republic, Croatia, Slovenia, Turkey, Bosnia-Herzegovina, Ukraine and Hungary.

The boules can be assigned to the specialty segment, because of its high quality, the sources, which are especially purchased for the Swiss market.

Gisberger AG is not active on any e-commerce service according to Mr. Wuchner. (Stefan Julius 2014a)

Biomaderas (Germany)

Biomaderas imports mainly decking and decking substructures from certified timber resources in South America and Asia. The main species Biomaderas is trading are plantation Teak (*Tectona grandis*) from Columbia, Cumaru (*Dipteryx odorata*), Tatajuba (*Bagassa guianensis* Aubl.) as well as Garapa (*Apuleia leiocarpa*) from Brazil. The company is now five years in the timber business. The interviewee Mr Koerting is one of the company's founders. His work is to build up new contacts and to keep in touch with the supplier. Furthermore, he controls the quality as well as the production of the timber products.

Biomaderas is operating in different market segments. With their decking boards Biomaderas is operating on the commodity segment. Although the substructures are very often needed, Cumaru has become a seldom traded and offered wood species on the international timber trade. Due to the scarcity of Cumaru, producers have to be found; therefore the selling of substructures of Cumaru can be assigned to the specialty segment.

Biomaderas has a standard non paid e-commerce accounts on FORDAQ and Alibaba. Besides that they also have an account at woodworker which is not relevant for this research right now.

ACCSYS Technologies (The Netherlands)

The Dutch company ACCSYS Technologies produces two products. ACCSYS' main product is made from solid Radiata pine and the company sells under the trademark Accoya Wood. The other produced good is acetylated timber fibres. These fibres are shipped from Arnhem to the new board production company in Ireland, where they produce acetylated timber boards of the trademark Triccoya. Both products Accoya and Triccoya are assigned to the specialty segment.

The interviewed Mr. Lankveldt is the product development engineer and assists ACCSYS sales department with their sales and product information for the marketing of new products.

ACCSYS Technologies is not active on e-commerce services at all. (Stefan Julius 2014g)

Lignius (The Netherlands)

Lignius is a small Dutch company. It became famous as one of the first production companies dealing in thermal modifying timber. Their trademark smartheat has a Dutch KOMO certificate as well. The interviewee Mr. Michon is one of the founders of the company and works as an operational manager in the thermal modifying plant. The company is not buying and selling the timber. Their main customer base are timber trading companies from the Netherlands, Belgium and sometimes from England of the commodity segment, although the thermal modification makes the product into a specialty.

Lignius has a standard non-paid account on FORDAQ since 2007. (Stefan Julius 2014d)

3.3. Questionnaire

Additionally, an anonymous questionnaire was performed. It was sent via e-mail mainly to FORDAQ members. Furthermore, it was posted on timber trading related groups at LinkedIn (ANNEX 3).

The result of a questionnaire is particularly critical, because they were requested via e-mail or were posted on socialmedia groups. 17 participants of the timber business answered it.

What should be considered is that these 17 participants cannot present a representative sample of the international timber trade. Nevertheless, besides the expert interviews, it is a helpful primary source to answer the research questions.

First of all the start date of the questionnaire was the 24th November 2014 and it closed nearly one month later on the 17th December 2014. (Figure 5)

Locations:

The participants who answered the questionnaire were mainly from Europe and America. Two participants were from the Netherlands, each one from Germany, Ukraine and from the Czech Republic.

Two participants came from the United States, one each came from Nicaragua in Central America and the other one came from Uruguay in South America.

Business segments:

The main business segments of the timber professionals who participated on the questionnaire were 53% buying and selling. 18% of them only sell and six percent only buy timber products. (Figure 6)

Company sizes:

The majority companies are, according to the results of this questionnaire, small and medium companies. 41% of the participants work at companies with one up to nine employees. 36% of the participants work for companies with fewer than 100 employees. 12% were from bigger companies with 100 up to 199 employees and the other 12% are working at companies with more than 400 employees. (Figure 7)

Purchasing/ Supplying Channels:

The main trading channels of the companies were the participants of this questionnaire work are out of the import and trading segment with 53%, while 41% use agencies to supply or purchase their products. 76% of the participants work for companies which go directly to the producer. Only 29% additionally use the e-commerce as their supplying or purchasing channel. (Figure 8)

3.4. Tools Used

The interviews were recorded with the recording software "Pamela for Skype" (Pamela for Skype 2014)" and the Android software "Smart Voice Recorder" (Smartmob Development 2013).

The survey software has been provided by Google Forms. (Google Forms 2014)

3.5. Research Ethics

All interviewees accepted to record the interview.

Additionally, the interviewees were informed,

- That the interview records will not be given to other people without their consent.
- That the recording will only be used to transcribe the interview down in a digitized summary for further researches.
- That the summaries will be stored as evidence for the research committee.
- That a data sampling will be made and only research relevant sections have been summarized.
- That the interviewees will get a digital example in the form of a document file.
- That mistakes can occur during the transcription from the voice record to a written text.
- That the interviewees will have the possibility to intervene, if there are parts in the interview which should not be published.

3.6. The Reliability of the Data

Because only little literature about e-commerce services in combination with the timber trade was found and the fact that the found literature was old, resulted in the approach to perform an interview and a questionnaire. The result acquires insight into the international timber trade in connection to e-commerce systems like FORDAQ or Alibaba.

Seven interviewees of the timber business were selected. Three of the interviewees were employed at timber related companies and responsible for the supply and purchase of their company during the interview. Four interviewees were entrepreneurs and worked for their own company in the timber business. Four of the seven companies have had e-commerce accounts on FORDAQ and Alibaba. Only two of the companies have had a paid account on FORDAQ. Lindner TIMBER has a bronze account and Puidukoda has a gold account at the time of the interview.

Lindner TIMBER, Puidukoda, Mr. Agarwal and Biomaderas are mainly trading in the commodity business. The Girsberger AG, ACCSYS Technologies and Lignius are trading with specialty products.

All interviewees are of the sales or product department and have experiences in the international timber trade.

The fact that only 17 participants reacted on the questionnaire request via e-mail and social media leads to the fact that the sample would not be reliable if it was used as the only primary source. However, the results of the expert interviews combined with the information from literature and desktop research often coincidence with the results of the questionnaire. Therefore the questionnaire can be seen as enrichment for this research. (Stefan Julius 2014h)

3.7. Data Processing

The data from the expert interviews was processed by listening to the interviews several times, at least two times. The next step was to transcribe the audio format of the interviews into a Word document. If the interviews were performed in German, they were translated to English afterwards.

3.8. Limitations of the Research

The language spoken during the interviews with Mr Koerting (Biomaderas), with Mr Wuchner (Girsberger AG) and with Mr. Lankveldt (ACCSYS Technologies) were held in German, as the interviewer partners were both native speakers. Therefore, the interviewer translated them into English afterwards. The transcription process and the translation process could lead to errors and different meanings.

The lack of professional skills in performing intensive valuable questionnaires with potential customers and the lack of experiences in interviewing people were one of the main limitations during this research process but have been solved with the best knowledge and belief.

The setting of the questionnaire questions and the sending of the emails and social media group posting is facing of the fact that mass emails and mass requests in timber related groups will result in low answer results. In the email or on the social media group post requests to visit a link to a survey. (ANNEX 3 and 4)

Two weeks before the questionnaire was closed a second e-mail and a second posting was performed. After four weeks in total the questionnaire was closed and evaluated. (Figure 5)

4. Findings

- I. **How is the current situation of e-commerce services for the international timber trade?**
 - a) **Why has e-commerce become the main B2B trading possibility in the World Wide Web?**

Interview

There is currently a huge difference between companies of the commodity and the specialty business in combination with e-commerce services.

As Puidukoda, Lindner TIMBER and Biomaderas mainly trade commodity goods, they are members of e-commerce services. On the contrary, companies like Girsberger AG, ACCSYS Technologies and Lignius which trade or produce specialty products are not active or not even registered on e-commerce services.

All interviewees follow the same thought, that only standardized mass produced goods fit the needs to sell or buy on e-commerce services. Trade with standardized products have influenced the leading position of B2B e-commerce services. Especially, Alibaba is the main B2B trading e-commerce service where commodity products out of all business segments are offered and requested.

Questionnaire

The most important part of e-commerce is the fact that it helps companies not only of the timber trade segment to find new business contacts.

Nevertheless, according to the result of the questionnaire question number 18, if the participants think that e-commerce will dominate the international timber trade in the next ten years, 69% of the participants do not think that e-commerce will become a dominant trading factor in the future. 31% of the timber professionals have the thought that e-commerce will dominate the international timber trade in the next ten years. (Figure 9)

- b) **Which e-commerce services have the highest impact on the international timber trade?**

Literature

FORDAQ's e-commerce service has the highest impact for the international timber trade. It is the most important service for wood professionals from all over the world. With its 60,000 members out of almost every wood segment from every continent of the world. FORDAQ helps timber traders to connect with each other. This has FORDAQ been doing since 2001 and this has resulted in a large database of information about international timber traders. Additionally, with the acquisition of the German International Wood Trading Platform IHB in 2006, FORDAQ established the biggest e-commerce system for the international timber trade.

The impacts Alibaba as largest e-commerce service worldwide has on the international timber trade cannot be guaranteed with the report from 2009, but assumed.

Moreover, Alibaba is attractive to this research paper, owing to its innovative e-commerce system. The company's transparency which is part of its marketing strategy (Stuart Crainer 2010) gives helpful insights about how an evolving e-commerce system can help to build B2B relationships, which revenue system is used, and what needs to be improved to have a higher customer satisfaction in the future.

Interview

During the interviews all participants named FORDAQ as the main e-commerce service for the international timber trade. For all interviewees is Alibaba's e-commerce service for the timber trade too "noisy". The timber related offers and demands on Alibaba do not fit their needs and expectations. Additionally, these buy and sell ads are mainly for or from the Chinese market.

In addition, the interviews have shown that timber related LinkedIn groups can compete with the e-commerce systems. Mr Koerting pointed out, how important these special timber related LinkedIn groups already are for his company's business. (Stefan Julius 2014c)

Questionnaire

In the questionnaire 76% of the participants knew FORDAQ and 71% Alibaba. Additionally, 47% of all participants knew GlobalWood, an e-commerce service specialized for the North-American timber market. (Figure 10)

38% of the participants were paid members FORDAQ and 13% had a paid e-commerce account on Alibaba and 13% on GlobalWood. On the contrary, 44% of the participants were non-paid members on e-commerce systems. (Figure 11)

c) How does e-commerce build business relationships?

To understand how companies build contacts at FORDAQ Mr. Brantjes and Mr. Moora described that FORDAQ helps to connect with potential prospects although no trades can be made directly.

The possibility to put ads with product offers or requests on the FORDAQ network in combination with their paid account already helps them to find new customers every year. Additionally, described Mr. Moora the advantages of the internet referrals from FORDAQ to their homepage. Mr. Brantjes explained that the contacts he makes per year determine the payment of his company's yearly fee as bronze member.

d) How does e-commerce work exclusively for the international timber trade?

Interview

The realities are already described and explained in the interview with Mr. Brantjes. FORDAQ only helps his company to "make contacts but not contracts". (Stefan Julius 2014e)

For Puidukoda is FORDAQ a marketing tool. It brings traffic to their homepage from the referrals of their gold account and it paid membership helps them to get better known by timber professionals. (Stefan Julius 2014b)

For Biomaderas only LinkedIn is useful, because they can find the producers there. Mr. Koerting said that on FORDAQ, Alibaba or WoodWorker he cannot find any of them.

Questionnaire

The timber professionals who participate onto this questionnaire chose the following options on why they have decided to pay money for an e-commerce service.

A steady material flow is for 12% of the participants very important and for 53% important. 18% of the participants had no opinion and for 12% it is less important. (Figure 12)

The fast availability of the goods have a very high importance to 12% of the questionnaire participants and an importance to 47% of them. 18% have no opinion and for 18% it is less important, 6 % see no importance at all. (Figure 13)

It seems that the information about the product has the highest impact on the importance for the participants. For 29% of the participants has the product information a very important reason for the paid membership. 41% of the participants think that this option is important for their decision to pay for e-commerce services. (Figure 14)

The flexibility has an impact on the decision process of the participant to pay for an e-commerce service with 24% who chose very important and 35% who chose important. Additionally, 35% have no opinion about this option as decision maker. (Figure 15)

Advisory skills as main decision option for a paid e-commerce account is to 18% very important, to 29% important and for 29% have no opinion on this feature. Additionally, have 12% of the participants chosen for less importance and no importance. (Figure 16)

24% of the participants have chosen the availability of a product as very important feature for their decision to have a paid membership on e-commerce services. In addition, 41% see it as very important. On the contrary, 18% have no opinion and for 12% is it of less importance and for 6% of no importance at all. (Figure 17)

Personal contact on the other hand, is for 18% of the participants very important as factor for a paid membership on e-commerce services. 47% still see it as very important factor. 18% have no opinion and only 12% see less and 6% no importance in the feature personal contact. (Figure 18)

Finding new business contacts is very important for 29% of the participants and for 41% it is still important. 12% have no opinion about this feature and for 6% it has no importance at all. (Figure 19)

The last point risk minimization, as one of the factors to decide whether to have a paid e-commerce membership or not, is very important for 18% and important for 35%. 29% have no opinion onto this topic and for 6% it does have no importance. (Figure 20)

- II. How can the international timber trade directly benefit from e-commerce services?
a) How should these e-commerce places work for the international timber trade?

Interview

The answers from the responsible persons from the companies Puidukoda, Lindner TIMBER and Biomaderas were very helpful for finding useful inspirations on how these e-commerce services can work for the international timber trade.

Mr. Moora from Puidukoda criticizes FORDAQ's old website design and the bad communication system. Additionally, he misses a modern database design and tags which are related to his industry. (Stefan Julius 2014b)

Mr. Koerting from Biomaderas misses the possibility for an e-commerce service to open up contacts to producers in South America or on other continents, as well. He wants have the guarantee that an e-commerce service can help him find producers of his bottleneck items. In addition, he would like to have support with the logistics and with the risk management. (Stefan Julius 2014c)

Mr. Brantjes wishes for it to be possible to have an internal e-commerce system where his clients or the users of such an internal network can place their offers and demands out of their stock. Also, he would like to connect non e-commerce members with each other or with other e-commerce members. He looks for a kind of supplier and purchaser network, as it is already tried to be provided by FORDAQ, Alibaba or GlobalWood.

Additionally, Mr. Brantjes is pointing out the difficulties with agents who claim goods as theirs, although they have not even talked to the owner of these goods. Mr. Wuchner and Mr. Lankveldt also stated that they do not see a future in the trade with agents. .

The product development engineer of ACCSYS, Mr. Lankveldt, thinks that the future of e-commerce lies in the exclusion of the intermediary trade. Mr. Wuchner has the same thought declaring in the future the agency business will be departed. Additionally, Mr. Lankveldt thinks that the trade will change in a way that the construction company puts its demands on an e-commerce service so that several saw mills can contact the construction company and inform it about what they can deliver. He finally, said that e-commerce has to give legal advices or help during the contract conclusion process, because this is the most questionable part in trading online, with such huge risks, such as high money losses with each container delivery.

Questionnaire

The answers to question 19 of the questionnaire can further help to find inspiration on how these e-commerce services work for the international timber trade. In this manner, all answers cannot only rely on the international timber trade. Consequently, they answer the problems of e-commerce services in general.

According to the answers of the questionnaire users criticize insecure e-commerce systems, which could mean that they do not feel safe giving their data away, or that they feel insecure, because of their personal data they already have given away. Furthermore, it means the uncertainty to negotiate with a serious company and the ordered or delivered products will be delivered or paid.

Another significant missing factor is the possibility of bargaining online, which is a very important part of the negotiation process. In addition, e-commerce users miss the transparency of the e-commerce service itself. Users on e-commerce would like to get more information about the technology the timber has been processed. Additionally, the measurement of the quantity, quality

and the dimension are some of the main matters users have mentioned. The participants also stated that they would like to have direct contact with potential prospects. Moreover, the claim management seems to be one of the bigger issues which are still not solved. The e-commerce users also wish that on these e-commerce systems more serious contacts are available, although it seems to be too public for these serious companies. Finally, producers have to be found and placed on e-commerce systems for the international timber trade. Especially, producers of tropical timber have to be found.

b) Which timber trade related services have to be added?

Interview

Analysed from the expert interview with Lindner TIMBER, Mr. Brantjes misses the following services on FORDAQ's e-commerce service. (Stefan Julius 2014e)

- the possibility to conclude sales completely on the Fordaq e-market with a contract
- the checking and the assurance of the financial security throughout the whole process
- the checking of the trustworthiness of the customer
- the measurement service of the sold / bought wood (Quality, Amount, Volume)

For Mr. Moora e-commerce services have to have a better database system, which would lead to exact search results. Especially, he misses the choice of product relevant tags for his product segment Planed timber. (Stefan Julius 2014b)

Questionnaire

The question in the questionnaire about the services the participants miss on e-commerce services especially for the timber trade resulted in two kind of answers.

Firstly, the answers are general and could be added to every other product segment on e-commerce services. Secondly, the answers were especially related to the timber trade particularly.

I. General

- Missing of the transparency of the e-commerce companies itself
- Direct contact to the clients to custom design the products details
- Less information

II. Timber related

- Information about the production technology
- Dimensional check
- Missing serious timber buyers
- Not enough producers from tropical countries
- No quality control

III. How can a third party make e-commerce services accessible to traditional timber trader?

The willingness of a company to hire an agency can give significant insight on the possibilities to offer such a service. Therefore, the interview with the product development engineer of ACCSYS Technologies, Mr. Lankveldt, showed that his company is not outsourcing any work to a third party at all. It could also be said that the purchase and supply politic is essential for the company to keep in close contact to their saw mills and distributors. (Stefan Julius 2014g)

On the other hand, the company of Mr. Wuchner hires agencies from time to time to find new boules and round wood suppliers in foreign countries. (Stefan Julius 2014a)

Furthermore, the use of an agency is substantial for Biomaderas. It is essential for them to help them buy their goods on the confusing markets in South America.

In addition, Mr. Koerting's company is willing to pay additional money for the logistic process from South America to Europe. (Stefan Julius 2014c)

Questionnaire

Before a company offers e-commerce related services to another company it has to find out if there is a need for such a service. A significant factor is the workload e-commerce services already produce. Therefore, the questionnaire asked the participants whether their company had employees especially for this kind of work.

With a majority of 47% mostly everybody is working on e-commerce businesses. 12% have a specialized team which focusses only on e-commerce systems. Another 12% do think about the employment for this kind of work. 12% stated that they are the only persons. (Figure 21)

29% of the participants would outsource their e-commerce service while 29% would not. Additionally, 29 % of the participants were not sure during the questionnaire and 12% did not think about this before the questionnaire has been performed. (Figure 22)

29% think their company could benefit from outsourcing the workload of e-commerce. Furthermore, 35% of the questioned persons think that their business will not benefit from outsourcing their e-commerce trades to a third party company (i.e. Agency). 12% did not know it yet and 24% think that it could be possible to benefit from outsourcing the work to a third party. (Figure 23)

On the question, which main benefits the participants of the questionnaire see, when they outsource their e-commerce activities to another company, the following results have to be described:

The expectations were to get a bigger market share and to reach new profitable market segments 41% chose this option. More time for other businesses follow in second place with 29%. 24% expect more serious business contacts. 18% of the participants expect a better notification of their company, when e-commerce service were to be outsourced to a third party company. Finally, 12% believe that their company could benefit by preservation of the market share and get a positive image. (Figure 24)

a) Which product groups ?

Standardized commodity products are the main product segment for the timber traders.

b) What e-commerce services for which located markets?

Interview

Undoubtedly, the interviewees are from Europe. They come from the Netherlands, Estonia and from Germany. Moreover, they are all located in the European Union. Mr. Brantjes from Lindner TIMBER explained the advantages of trading inside the European Union. The equality of the legal system makes it easier when it comes to conclude contracts. On the other, hand it is much more difficult to conclude contracts with Non-European Union members. (Stefan Julius 2014e)

Alibaba, as key player in Asia, especially China, plays a minor role in the interviews. The Chinese market is actually not very interesting for Girsberger AG, Biomaderas and Accsys Technologies.

Mr. Brantjes, as initiator of this research, is very interested in business contacts via e-commerce with Chinese and Indian purchasers. The company Puidukoda is already active on the Chinese market with their products.

Interesting was the information Mr. Koerting from Biomaderas gave about the difficulties his company has to find FSC certified producer of tropical timber. Moreover, he has stated that FSC certified goods are very seldom offered on Alibaba. Finally, he is very much interested in an e-commerce service specialized on the market in South America. (Stefan Julius 2014c)

Nevertheless, neither Alibaba nor FORDAQ have the producers Biomaderas needs available therefore the timber related groups on LinkedIn fulfil all demands. Producers from all continents and countries are connected in specialized groups on LinkedIn. (Stefan Julius 2014c)

Questionnaire

Origins of the participants:

Europe

- Netherlands (2)
- Germany
- Ukraine
- Czech Republic

North-America:

- USA (2)
- Nicaragua

South America:

- Uruguay

According to the participant's answers on the question where the participant's companies buy or sell their timber 44% chose Europe, 50% chose America, 25% chose Asia and the other 25% chose Africa. 19% sell/ buy their timber on domestic markets and 25% chose other countries.

c) What outsourced services have to be added?

Interview

The interviews resulted in inspirations to help companies search for new business contacts, new raw material sources, so that this service shall connect prospects with each other.

Especially, Mr. Koerting and Mr. Wuchner had the idea that it could be very profitable when an e-commerce service could save their time and the company's money when the service could help them not to travel anymore and to spend their time on other important projects.

Questionnaire

4.1. Inspirations from the questionnaire

The following results of the questionnaire are conform with the answers from the interviews.

The decision to outsource e-commerce activities in order to gain a better market appearance, because 24% totally agree and still 53% of the questionnaire participants agree on this topic. 18% had no opinion and 6% disagreed.

- Outsourcing of marketing activities (Figure 25)

Open up new markets had with 29% a totally agreement. 65% agree 18% had no opinion and 6% disagree. (Figure 26)

- Market research
- Help on foreign markets

Close material gaps with 6% totally agree and 47% agree, where 29% had no opinion and 12% disagree. (Figure 27)

- Market research
- Searching for producers/ buyers

Open new e-commerce channels had with 24% a totally agreement still 41% were agreeing. 24% had no opinion, but 12% disagree. (Figure 28)

- Product offers on different e-commerce channels with a paid account

Create new business contacts with a totally agreement of 24% and an agreement of 59% only 6% had no opinion. (Figure 29)

- Market research
- Searching for producers/ buyers

Find new raw material sources with 29% totally agreeing participants, 41% agreements and 29% of the participants had no opinion. (Figure 30)

4.2. The expectations of the participants are:

Logistic services are very much appreciated by 6% to very appreciate by 29% and appreciated by 29%. 18% had no opinion and 6% didn't appreciated it. (Figure 31)

- Logistic services 62%

Money related services with 12% were very much appreciated, 29% very appreciated and 12% appreciated. 18% said that they have no opinion and the other 18% said that they could not imagine. (Figure 32)

- Money related services 63%

Control of the Product is very much appreciated by 18% of the participants 29% would very appreciate it and 6% appreciated it. 12% have no opinion and 24% couldn't imagine it. (Figure 33)

- Control of the Product 59%

Providing companies with product information is another service which is interesting for the participants. 29% of the participants very much appreciate this kind of service, 12% very appreciate it and 35% do still appreciate this kind of outsourced service. Only 6% had no opinion. (Figure 34)

- Providing companies with product information 76%

Researching prospects information is very much appreciated by 12% of all responsible persons who filled out the questionnaire, 35% very appreciate this kind of service and 12% would appreciate this. 18% had no opinion and 12% couldn't imagine to use this kind of service. (Figure 35)

- Giving/Researching prospects information 57%

E-commerce counselling is very much appreciated by 12%, very appreciated by 18% and still 24% appreciate this service. 29% had no opinion and 6% couldn't imagine. (Figure 36)

- E-commerce counselling 51%

Consulting as service which could be outsourced to a third party company is very much appreciated by 6%, very appreciated by 24% and still appreciated by 29%. 18% had no opinion and 12% couldn't imagine to use this kind of service. (Figure 37)

- Consulting as service 56%

The last point is the part of risk minimization by a third party company which is very much appreciated by 12%, very appreciated by 29% and still appreciated by 18%. 18% had no opinion onto this and again 12% couldn't imagine. (Figure 38)

- Risk minimization 57%

Questionnaire results to question 21 "E-commerce services are very useful, because of..." resulted in the following answers:

- Everything
- New contacts (6)
- Saving time, access to more contacts
- You can find companies otherwise harder to find
- Fast reaction time
- Our company's appearance
- Company promotion

5. Discussion

I. How is the current situation of e-commerce services for the international timber trade?

a) Why has e-commerce become one of the main B2B trading possibility in the World Wide Web?

For example, Lindner TIMBER actually offers saw logs of the species Larch/Fir/Douglas-fir (Offer Lindner TIMBER Larch/Fir/Douglas-fir saw logs) on FORDAQ. The quality B/C volumes from 500m³ up to 10000m³ tags these products as commodity. (Figure 41)

Furthermore, the company actually requests saw logs from the species Douglas-fir and Larch of low qualities B/C and volumes from 500m³ up to 250000m³ (Request Lindner TIMBER Douglas-fir/Larch saw logs).

However, for a company like Girsberger AG the quality of each round log is of very high importance. Indeed, they have to satisfy their customers of the office and kitchen furniture industry. As the company has its business contacts with traders all over Europe. It could be assumed that trust is built. The company still sends their purchasers to check the quality of the logs and boules. Otherwise, the delivery of the demanded high quality round wood and boules are not guaranteed.

Certainly, there are standards in both product segments. The demands on the product standards differ towards the commodity business, because of the end use of the traded goods.

Lindner TIMBER's product offers and requests cover different end uses with a mixture of the qualities B/C. They are ranging from medium to low quality interior and exterior furniture to the production of palettes and packaging materials

The end products of the Girsberger AG of the high end segment are designed with the quality demands of A and A/B for the production of individual kitchen and bureau office furniture.

The difference between Lindner TIMBER as commodity trader and Girsberger AG as specialty trader is a low and a high price segment.

The containers Lindner TIMBER ships have different round wood qualities inside. Sometimes they have more round wood with B than C or less B than C quality. The high shipping amount with low margin makes it impossible to check every log personally.

Mr. Wuchner, in contrast, has to look for high quality products which have sometimes additional special effects on the grain or texture. Therefore, he has to check every log several times and very exact to guarantee a high quality. Compared to Lindner TIMBER's container shipment, the amount of log the Girsberger AG buys is very low. (Stefan Julius 2014a)

With a low margin and a huge amount of traded goods it would be too expensive for Lindner TIMBER to travel around and check the qualities. Therefore, it is cheaper and faster to use e-commerce as a trading platform and to ship the commodities from A to B. (Stefan Julius 2014e)

Moreover, finding new business contacts is the main reason why e-commerce became so useful and famous for the timber trader as well. Martinsons already stated 2002 that e-commerce "websites are only for building relationships between business partners." (Martinsons 2002) The interviews with Mr. Brantjes, Mr. Moora and Mr. Koerting and the performed questionnaire have shown that they mainly use FORDAQ and LinkedIn to find new contacts.

An equally significant aspect of the interviews and the questionnaire is that companies are mainly used e-commerce services to promote their company and to have an improved appearance in the World Wide Web.

According to the interviews and the questionnaire results it can also be said that companies use e-commerce besides their main traditional channels to find the best selling and buying options and widen their chances of appearance in different markets. Because, the actual advertisements Puidukoda has placed on FORDAQ (Figure 43) do not reflect their complete product portfolio they offer to their customers. (Puidukoda 2014)

Finally, the faster reaction by direct contacting and the time saving option by not travelling around is another relevant argument, which has been stated in the interviews and the questionnaire as well. (Stefan Julius 2014h)

b) Which e-commerce services have the highest impact on the international timber trade?

During the discussion in the previous paragraph on which e-commerce service have the highest impact on the international timber trade came into a sharper relief. Clear outcome of the interviews and the questionnaire is that FORDAQ is the e-commerce service with the highest impact, followed by Alibaba and on the third place followed by GlobalWood.

It has to be considered how this comes to be. Firstly, almost all companies of which employees and owners have been interviewed are located in Europe. Secondly, the questionnaire has been mailed two times to companies which have been found on FORDAQ.

Indeed, the main goal of e-commerce services is to connect businesses with each other. Firstly, the key parameter to building business relationships is information. Without information companies have disadvantages against companies who know more about the markets, about their competitors or about their negotiation partners. (Zhao et al. 2008)

In the current state, the reality is different compared to the aspiration e-commerce services have. Alibaba is producing too much spam. FORDAQ, on the other hand has not invested in a new innovative database design or new e-commerce technology. Therefore, the provided information is often outdated and not correct and useless to the company looking for new contacts. To summarize this, e-commerce services currently provide their users to get in touch with each other. Additionally, provides its paid members with the chance to get more referrals to their homepage. FORDAQ's specialty is that the referrals are from timber professionals. These referrals can lead to business contacts as well.

c) How does e-commerce build business relationships?

Mr. Brantjes said during the interview that he made only one deal over the FORDAQ network since his company has become a bronze member. (Stefan Julius 2014e)

Mr. Moora explicitly stated the referrals from specialists out of the timber business. These timber professionals know what they are looking for. Especially, FORDAQ which is exclusively for timber traders, helps timber trading companies to find new business contacts. (Stefan Julius 2014b)

Overall, the interviews have only been done with professionals out of the timber business, therefore this research can only talk about their personal experiences they have made.

As a consequence of the statement that Alibaba is too "noisy", because of the huge amount of different product offers, which are not only timber related, FORDAQ seems to be the only address for the international timber trade. (Stefan Julius 2014c)

Although, FORDAQ can only be seen as a marketing and promoting tool in addition as a place where timber professionals can contact each other it seems to work well for the paid account members Lindner TIMBER and Puidukoda. As a result Puidukoda spent its complete marketing money into the gold membership on FORDAQ (Stefan Julius 2014c) and Lindner TIMBER benefits every year from its paid account (Stefan Julius 2014e). Nevertheless, Biomaderas has no paid membership at FORDAQ. This is because, Mr. Koerting stated that he has difficulties finding FSC certified Cumaru producers from South America on FORDAQ as well as on Alibaba. (Stefan Julius 2014c)

Finally, timber related groups on LinkedIn have to be named which seem to have an additional influence in building contacts between timber professionals similar to FORDAQ. Mr. Koerting stated that he can find the missing producers of his FSC certified Cumaru there. (Stefan Julius 2014c)

The results of question 11 from the questionnaire gives an overview on the different levels of importance placed on each option now and in the past to have a paid e-commerce account. (Stefan Julius 2014h)

It is, however, important to note the limitations of the fact that only 17 timber trade professionals have participated in the questionnaire on e-commerce services for the international timber trade. (ANNEX 3) These 17 participants cannot be a representative sample for the international timber trade. (Stefan Julius 2014h)

One key statement of Mr. Brantjes summarises it all, as he said during the interview "We are only making contacts not contracts." (Stefan Julius 2014e) The literature stated this additionally that e-commerce services are only help businesses to connect with each other. (Martinsons 2002)

People still have difficulties to conclude contracts over the internet when huge amounts of money are involved. Especially, with business contacts they personally haven't seen or talked to. Moreover,

the fact, that the traded goods cannot be examined makes deals over internet platforms more difficult. (Stefan Julius 2014g)

Nevertheless, the possibility to trade commodities which are standardized or produced in masses with a low quality changes this behaviour over the years. This can be claimed as one of the reasons why Alibaba has such a huge growth.

E-commerce services currently only help traders to build new business relationships. Still, the main goal is to fulfil the whole trading process over e-commerce services. (Figure 1)

Whether paid e-commerce accounts work better than standard accounts cannot be answered with this research. While, the paid account seems to pay out for the users, it seems to be another trend is the use of the social media service LinkedIn. The timber related groups on LinkedIn open up new potential markets and business contacts. Especially, to producers out of the tropical timber segment.

II. How can the international timber trade directly benefit from e-commerce services?

a) How should these e-commerce places work for the international timber trade?

Despite the criticism by the interviewees about FORDAQ and its missing services, its popularity remains high. It is still useful to use the critique as inspiration to make these e-commerce services work better and to understand in general how they work. Especially, how they work for the international timber trade.

Firstly, the critiques mainly concern the timber trade related FORDAQ as the leading and best known e-commerce service. Secondly, the experiences and expectations of the interviewed persons towards e-commerce services in general immensely differ. Thirdly, the answers were not exclusively about the timber trade. But, this does not really influence the results.

Having considered these three important issues, it is also reasonable to look at the general answers of question 19 from the questionnaire. Although, the small number of participants is not really representative for the international timber trade they still correspond with the critiques made by the interviewed persons. (Stefan Julius 2014h)

b) Which timber trade related services have to be added?

One must be able to understand how timber trade related services differ especially towards e-commerce systems. Evidently Lindner TIMBER's experiences since 2007 as bronze member at the FORDAQ network can help to answer the question which timber related services have to be added. (Stefan Julius 2014e)

After all, has to be considered, whether timber related services should be added.

As already shown in Figure 1 and explained in Chapter 2.3.1 of this research, a third party company like Alipay or Escrow can help to solve the missing options on FORDAQ. The money withholding system Alibaba uses with these third party companies can minimize the risks timber traders fear.

For ACCSYS Technologies such a withholding systems is unfeasible. Mr. Lankveldt defines the problem with the saw mill from New Zealand, for example. The delivery of the Radiata pine from New Zealand to the Netherlands takes approximately 9 weeks. The saw mill would have to wait until the container arrives in Rotterdam, before they would get the money. Besides, that several containers would be shipped, because ACCSYS gets delivered 20 container Radiata pine per week.

An equally significant aspect is the fact that Mr. Lankveldt's company would not accept a third party bank's involvement in the trade with their suppliers at all. (Stefan Julius 2014g)

Indeed, the questionnaire again showed similarities to the answers from the interviewees. (Stefan Julius 2014h)

III. How a third party can make e-commerce services accessible to traditional timber trader?

The approach to get answers from the interviewees, whether they are willing to outsource their workload on e-commerce service or not, was very difficult. All performed interviews in summer 2014 had no questions regarding to outsource e-commerce businesses to a third party company (i.e. Agency). However, the companies interviewed in winter 2014 are besides Biomaderas, not active on e-commerce at all. Therefore, the questions about the willingness to use agencies instead of doing the purchasing or supplying of timber by themselves were determinative as answer if a company would accept outsourcing to a third party.

To be able to understand companies of the international timber trade, a questionnaire has been performed. Although, only 17 participants were willing to perform the questionnaire the answers are valuable enough to be used as primary sources. Furthermore, the results can give insight on the question of how can a third party company make e-commerce services accessible to traditional timber traders.

The main questions of the questionnaire for getting insights on the trading behaviour of timber professionals on e-commerce systems were:

Question 12: Does your company have employees who are exclusively trading on e-commerce platforms?

The interviewees had to choose only one of the following options:

- Yes, we have an e-commerce team.
- Maybe in the future
- No, everybody is partly working on e-commerce
- I'm the only person.
- Other

Question 13: Would your company outsource its e-commerce business (i.e. agency)?

The choosing of one option also applied to this question.

- Yes
- No
- I don't know
- We haven't thought about it.
- Other 0 0%

Question 14: Do you think your company could benefit from outsourcing your e-commerce business?

Only one choice from the following options was possible.

- Yes
- No
- I don't know
- Maybe
- Other

Question 15: If you would decide to outsource your e-commerce activities, which main benefits for your company would you expect?

The following options could be chosen by the participant. More than one answer was possible.

- Reach of new profitable market segments.
- A higher market share.
- Preservation of the market share.
- Better Notification of the company.
- Positive image for the company.
- Time for other business
- More serious business contacts
- Other

Although, the results are not a representative sample of the international timber trade, the answers function as an inspirational source.

Finally, comments made in parts of the questionnaire are considered to have as much information on the thoughts of responsible persons of the timber trade. (Stefan Julius 2014h)

a) Which product groups have to be chosen?

The knowledge gained from the former chapters that actually most of the times commodity products are traded on e-commerce systems, help to answer this question.

b) What e-commerce services for which located markets?

Similarly, Mr. Brantjes from Lindner TIMBER explained the advantages trading inside the European Union. The equality of the legal system makes it easier when it comes to conclude contracts. On the other hand, it is much more difficult to conclude contracts with Non-European Union members. (Stefan Julius 2014e)

Especially, for the non-e-commerce active companies the Chinese market actually is not very interesting. This has been stated during the interview by the employees of Girsberger AG, Biomaderas GmbH and Accsys Technologies.

Mr. Brantjes, as initiator of this research, is very interested in business contacts via e-commerce with Chinese and Indian purchasers. (Stefan Julius 2014e)The company Puidukoda is already active with their products on the Chinese market. (Stefan Julius 2014b)

Alibaba or FORDAQ do not provide the products Biomaderas needs for the European market. Therefore, Mr. Koerting uses the timber related groups on LinkedIn. They fulfil all needs, because Mr. Koerting can find the producers of his tropical timber especially FSC certified. On LinkedIn he has the possibility to connect with timber traders from all continents. (Stefan Julius 2014c)

The questionnaire, despite its low participation, brought light to other continents and its e-commerce services, where the interviews failed to provide information.

As already noted each region has its special e-commerce service. FORDAQ is dominated by timber trading companies from Europe. Alibaba was especially developed for the Chinese market. Although, Alibaba is going global it still is dominated by Asian companies especially, from China. TradeIndia and IndiaMart can be assigned to the Indian market. Both e-commerce services can be described as clones from Alibaba. GlobalWood is assigned to the North-American market and seems to have the same age and the same concept as FORDAQ. (Stefan Julius 2014h)

c) What outsourced services have to be added?

The fact that the most experienced e-commerce traders, Mr. Brantjes and Mr. Moora, haven't been asked about their thoughts on outsourcing the workload of e-commerce services to a third party, this research depended on Mr. Koerting's thoughts. The answers of the questionnaire gave additionally insights on what outsourced services have to be added. (Stefan Julius 2014h)

Question 16: When a company (i.e. agency) which is specialized in trading timber products via e-commerce services trades your products it could...

The answers had to be chosen by the participant. The participant had to choose on every row and score the available options with totally agree, agree, no opinion, disagree and totally disagree. (Figure 39)

Question 17: What kind of services would your company expect by outsourcing your e-commerce appearance to another company (i.e. agency)?

Has the same setup (grid) as question 16, with the only difference in scoring, here the participant had to score from very much appreciated, very appreciated, appreciated, no opinion, couldn't imagine, not appreciated, absolutely not appreciated. (Figure 40)

6. Conclusion

On the basis of the discussion it can be concluded that the current situation of e-commerce services for the international timber trade is the following: Commodity traders use e-commerce and specialty traders do not. Because, standardized or mass produced goods are easier to trade via e-commerce business channels as not standardized and high quality end products. Especially, the fact that timber is a natural product makes it very difficult to identify high qualities. (Stefan Julius 2014a)

Furthermore the research data supports the view that FORDAQ, followed by Alibaba and Globalwood, has the highest impact on the international timber trade.

Although, FORDAQ is currently not supporting the complete fulfilment process (Figure 1) as Alibaba is. (Zhao et al. 2008) It cannot be denied that making contacts by connecting via e-mail or over referrals from FORDAQ is still the main way of building business relationships. All members on FORDAQ are timber professionals.

The higher the membership status, the better the possibilities for buyers and sellers. As a consequence of being a paid member on an e-commerce service, new contacts can be made easier. Additionally, a paid membership has the advantage of a more frequent appearance of the company's homepage link. The advertisements with product requests and offers have a better appearance as well.

Therefore, the key statement made by Mr. Brantjes the owner of Lindner TIMBER in Arnhem "We are only making contacts not contracts." describes exactly how e-commerce currently works. (Stefan Julius 2014e)

The results of this research suggest, that the international timber trade can benefit from e-commerce systems when more producers are part of this network. This is already the case on LinkedIn's timber related groups, but not on the named services for the timber business. (Stefan Julius 2014c)

Additionally, several experts have claimed during the interview that the exclusion of the intermediary trade brings beneficial advantages for the producer and the buyer.

It can be concluded, that no timber related services, for example the measurement of volume, sizes and amount, have to be set up exclusively. The trade between B2B partners of the timber trade can be very trusted as well. The trustworthiness depends on the services an e-commerce system itself provides. The better the four main elements: information, negotiation, payment and delivery are controlled by the e-commerce system, the higher the security during the trade process. (Zhao et al. 2008).

As an additional result it can be specified that companies are willing to outsource their e-commerce workload to a third party. As they would do by hiring an agency.

Currently, it is still easier to find companies of the commodity business. To reach the specialty business seems to be possible over co-operations. But, trading these goods via e-commerce is a tough nut to be cracked in the future.

Before considering that the main e-commerce services are already divided into different markets and availabilities, for example that FORDAQ is only for the European and the American market, Alibaba is only for the Asian market. It is important to note that there is still potential for a new e-commerce service which connects all continents and countries.

Finally, this research sees the opportunity for a service which tries to connect all main markets with each other by offering its availability on several e-commerce systems.

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7. Appendices

7.1. ANNEX 1: Expert Interview Template (summer 2014)

1. **Please could you give a few core information about yourself?**
2. **Why do you think that you are the right expert to interview about Fordaq?**
3. **Please could you give me information about your company's and your personal history with Fordaq?**
4. **Why is your company registered at business-to-business marketplaces like Fordaq?**
5. **Are you offering your products on a steady base via the Fordaq network?**
6. **Which kind of products do you offer on the network?**
 - a) E.g. products you cannot sell in a regular base or...
 - b) Do you produce for Fordaq?
7. **I have seen that your company is in the second year a gold member, which membership had your company before?**
8. **Why has your company become a Gold member on the Fordaq network**
9. **Has your investment paid out?**
10. **Will you extend your gold membership after the expiry date?**
11. **What kind of customers do contact you via Fordaq?**
 - a) New customers / same "suspects" as usual
 - b) From where are they (EU, Non-EU, Asia...?)
 - c) Retailer ...
12. **Which international markets will be interesting for your company in the future?**
13. **How do you think about the following statement: "We do not conclude mandatory activities over business-to-business marketplaces, but these market places are offering us new contacts with potential customers?"**
14. **What do you think about the statement? "An online business-to-business marketplace offers me a lot of contacts but does not protect our company against scam."**
15. **Please score your personal experiences with online business-to-business marketplaces and its members on a scale from 1 - 7.**
16. **Which additional capabilities on the Fordaq network are you missing?**
17. **Please could you intuitive give me a few positive adjectives about the Fordaq Network?**
18. **Please could you intuitive give me negative adjectives about the Fordaq Network?**

7.2. ANNEX 2: Expert Interview Template (winter 2014)

1. **Please can you introduce yourself?**
 - a. Your Name, the name of your company, which position do you have in your company, where is your company located, the main business (products, markets,...) of your company, ...
2. **Have you ever heard about e-commerce systems especially for the international timber trade?**
 - a. Which e-commerce systems do you know
3. **Is your company registered on an e-commerce system?**
 - a. If yes
 - i. How long is your company a registered member on e-commerce systems?
 1. On which e-commerce system(s) is your company registered?
 2. What kind of membership does your company have on Fordaq/Alibaba.com/other e-commerce?
 3. Has your investment paid out?

4. Do you think about to become a paid member on e-commerce systems?
5. For what purpose is your company member on such an e-commerce system?
 - ii. Are you offering your products on a steady base via the e-commerce networks?
 - iii. Will you extend your membership?
- b. If no
 - i. What are the reasons you are not registered on an e-commerce service?
 - ii. What are the main supplying/purchasing channels of your company?
 - iii. Which kind of products do you offer over these channels?
- 4. What do you think about the future of the international timber trade in combination with e-commerce services?**
- 5. How could the international timber trade benefit from e-commerce services?**
- 6. What kind of customers does your company contact right now (via e-commerce systems)?**
- 7. Which international markets could be interesting for your company in the future?**
- 8. What do you think, how e-commerce could help your company to reach new markets?**
- 9. Which additional capabilities are you missing on actual e-commerce networks?**
- 10. What would be needed on e-commerce systems that your company will consider a (paid) membership?**
- 11. Do you miss timber trade specialised services on e-commerce systems like Alibaba.com or Fordaq?**
- 12. Would you consider outsourcing your e-commerce business to a company which is specialized in e-commerce especially for the international timber trade?**
 - a. If yes which services should this kind of company offer to your company
 - i. What services?
 - ii. Who could offer this to your company
 - iii. How could the payment look like (percentages/m³, ...)
 - iv. What type of membership
 - b. If no why not?
 - c. What has to be done, if your company would decide to outsource its e-commerce business to an agency for example?
 - i. What services?
 - ii. Who could offer this to your company
 - iii. How could the payment look like (percentages/m³, ...)
 - iv. What type of membership
 - d. If no why not?
 - e. What has to be done, if your company would decide to outsource its e-commerce business to an agency for example?

7.3. ANNEX 3: LinkedIn Request - Questionnaire

Research: E-commerce and the International Timber Trade, realities, failures and opportunities for FORDAQ and Alibaba

I have prepared an online questionnaire via Google Forms <http://goo.gl/forms/fUxg6bj1U2> as part of a research project. It is all about to understand decision maker's views on e-commerce services specialised on the international timber trade.

Your responses are very important in enabling me to obtain as full an understanding as possible of this topic. However, your decision to take part is entirely voluntary.

If you do decide to take part, the online questionnaire should take you about 7 – 10 minutes to complete.

The information you provide will be treated in strictest confidence. You will notice, that you are not asked to include your name or address anywhere in the questionnaire.

Hopefully you'll find completing the survey enjoyable. Feel free to contact me for feedback or question on the research.

Stefan Julius

7.4. ANNEX 4: E-mail Request - Questionnaire

Dear ...,

I have prepared an online questionnaire via Google Forms <http://goo.gl/forms/fUxg6bj1U2> as part of a research project. It is all about to understand decision maker's views on e-commerce services specialised on the international timber trade. Your responses are very important in enabling me to obtain as full an understanding as possible of this topic. However, your decision to take part is entirely voluntary.

If you do decide to take part, the online questionnaire should take you about 7 – 10 minutes to complete. Please answer the questions in the spaces and use the survey buttons provided. If you wish to add further comments, please feel free to do so in the offered spaces. The information you provide will be treated in strictest confidence. You will notice, that you are not asked to include your name or address anywhere in the questionnaire.

The answers from your survey and others will used as one of the main data sets for my research project for my bachelor degree in the International Timber Trade studies at the University of Applied Sciences Van Hall Larenstein (Netherlands) at the University of Applied Forest Sciences Rottenburg (Germany)

I hope that you will find completing the survey enjoyable. If you have any questions or would like further information, please do not hesitate to telephone me on **+31 (0)6 12545679** or email me at stefan.julius@wur.nl or stefan.julius@student-hfr.de.

Thank you for your help.

Mr Stefan Julius

7.5. ANNEX 5: Questionnaire Graphs

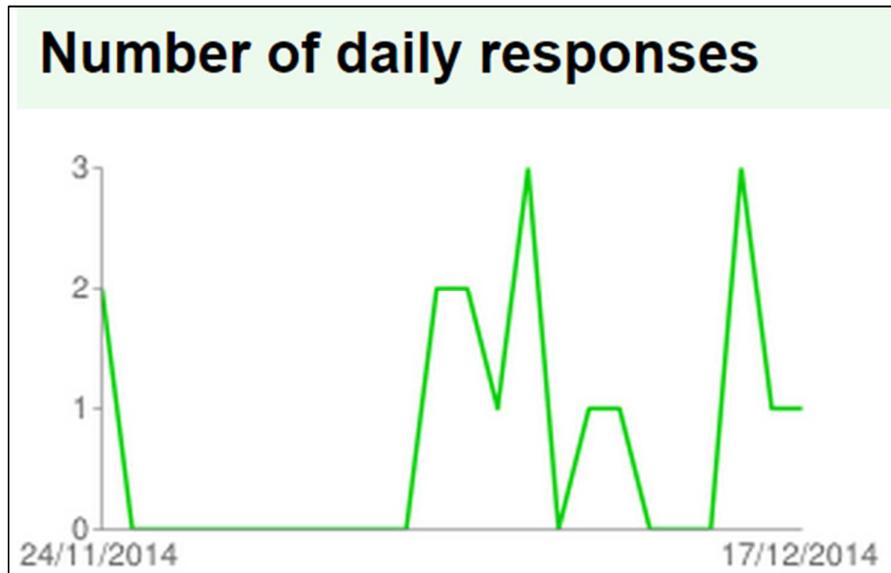


Figure 5 Questionnaire Start and End Date - Dailey Response Count

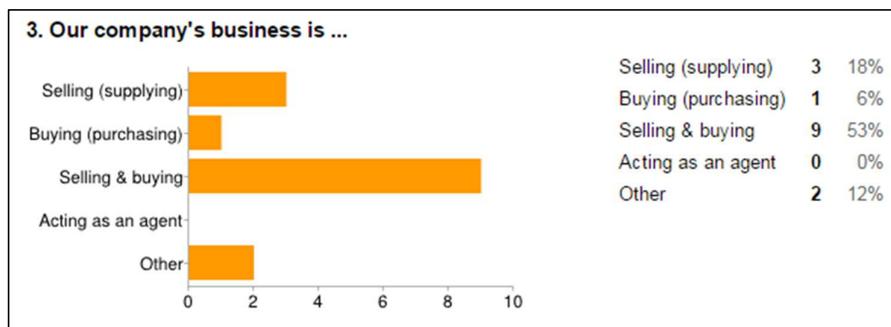


Figure 6 Question 3 Main Business Segments

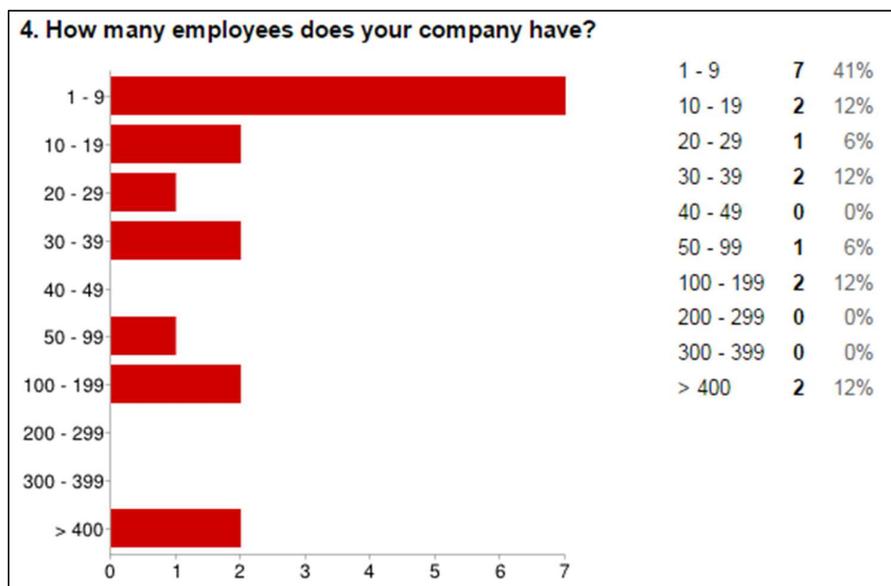


Figure 7 Question 4 Company Size

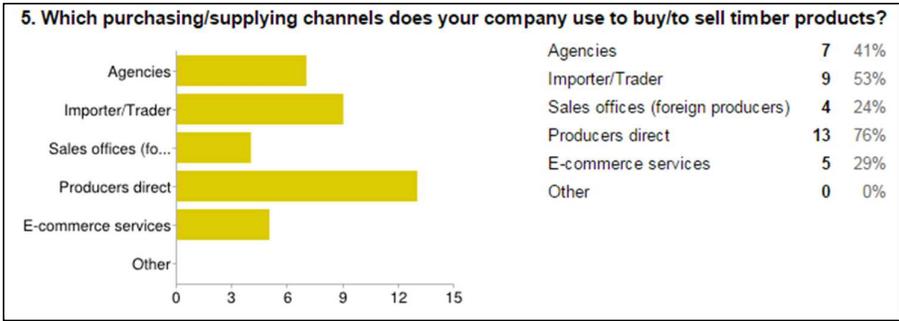


Figure 8 Question 5 Purchasing/ Supplying Channels

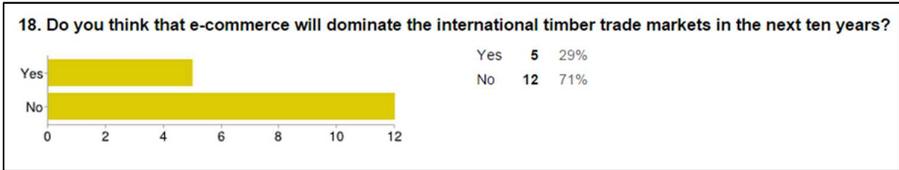


Figure 9 Question 18 Domination of e-Commerce Services

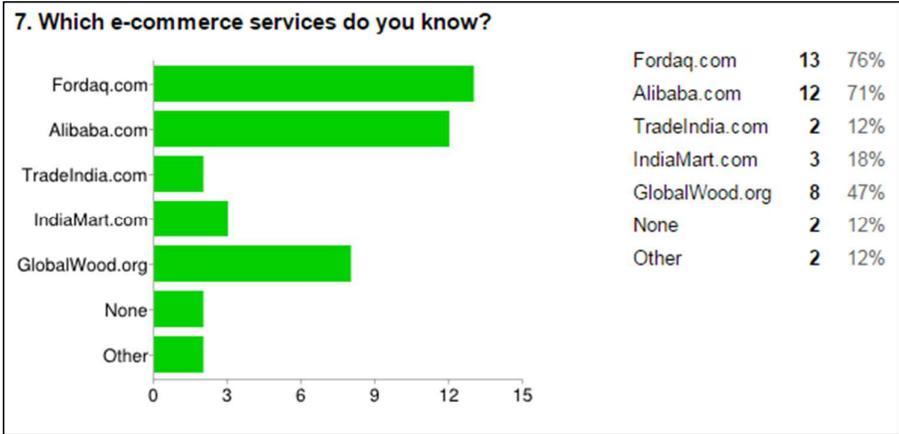


Figure 10 Question 7 Known e-Commerce Services

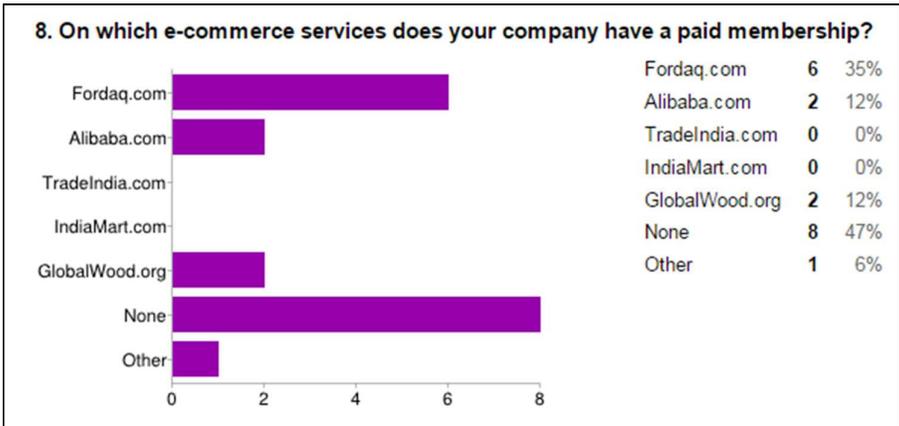


Figure 11 Question 8 e-Commerce Services Paid Membership

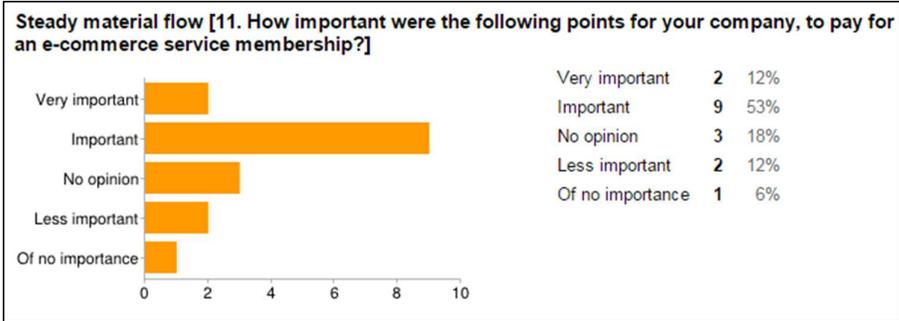


Figure 12 Question 11 Importance of Steady Material Flow

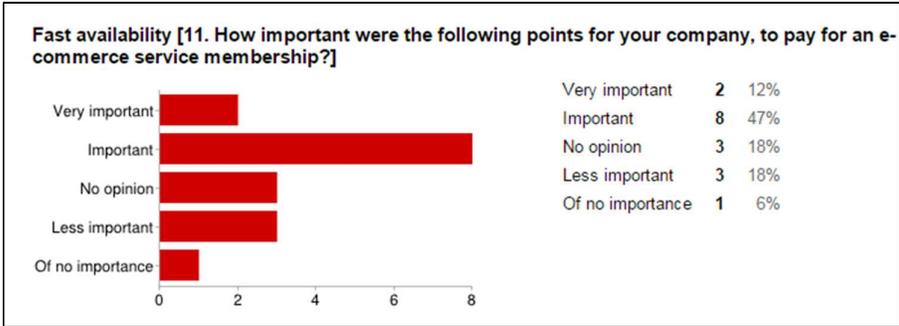


Figure 13 Question 11 Importance of Fast Product Availability

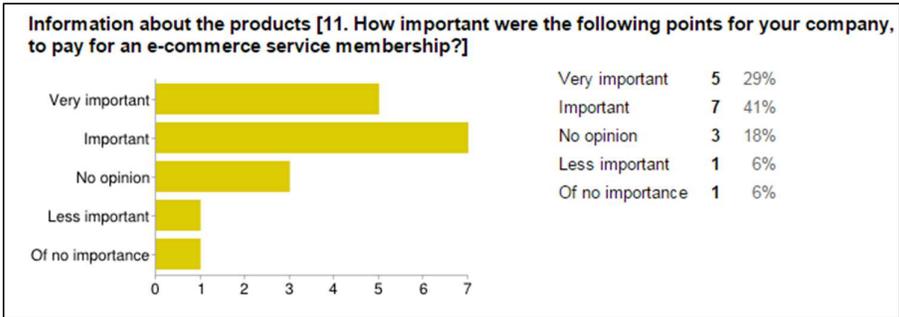


Figure 14 Question 11 Importance of Information about the Product

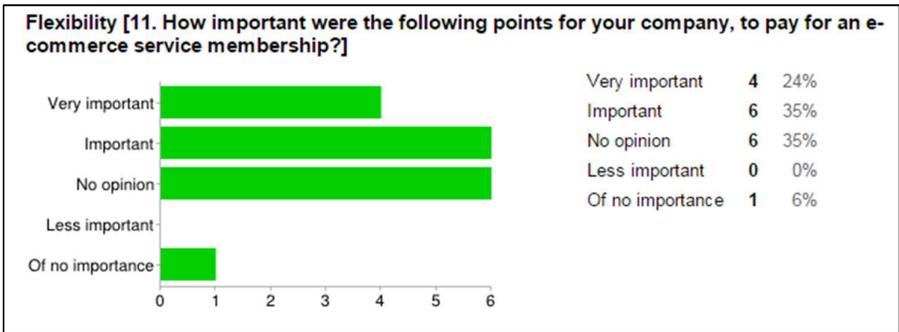


Figure 15 Question 11 Importance of Flexibility

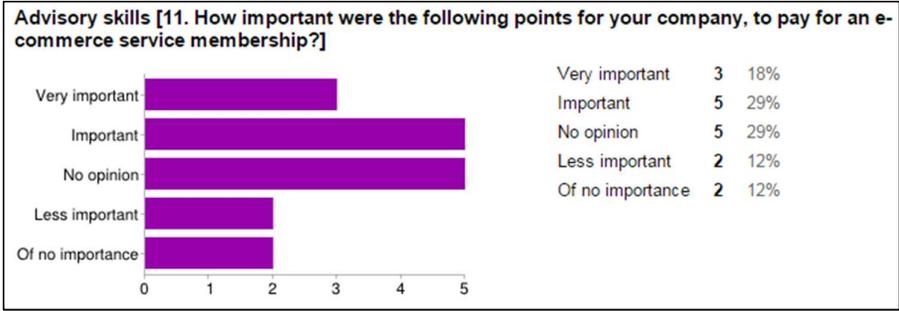


Figure 16 Question 11 Importance of Advisory Skills

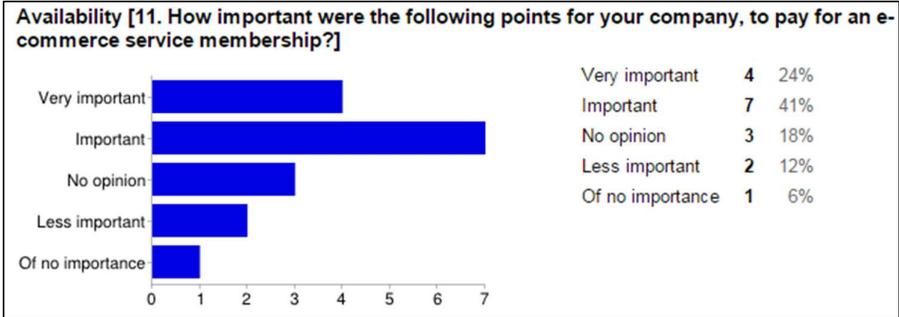


Figure 17 Question 11 Importance of Availability

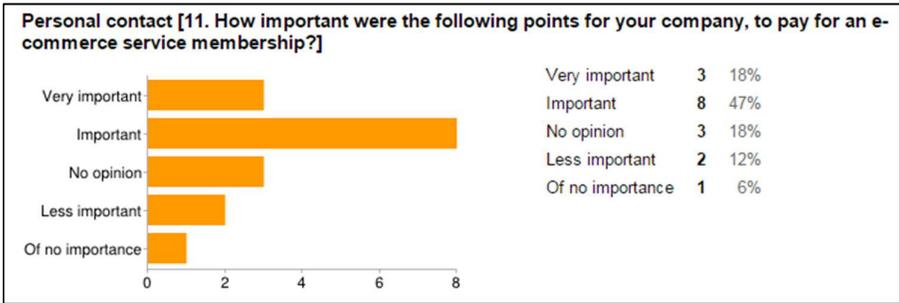


Figure 18 Question 11 Importance of Personal Contact

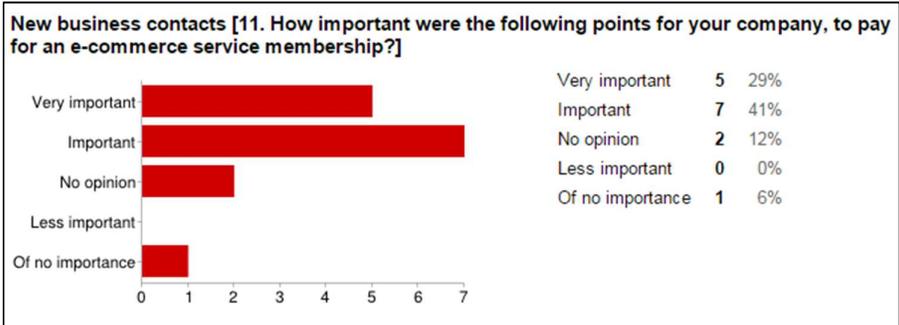


Figure 19 Question 11 Importance of Finding New Business Contacts

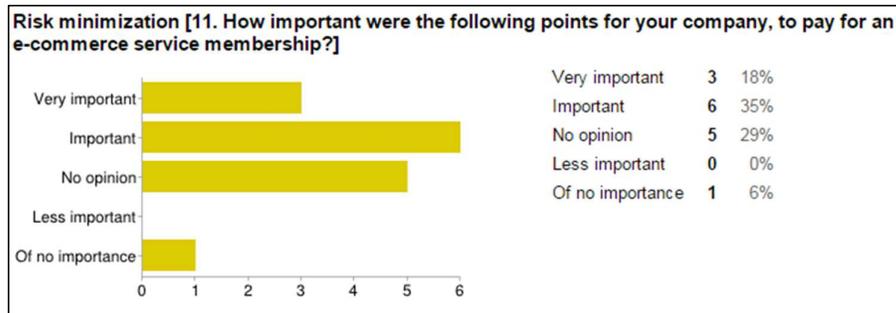


Figure 20 Question 11 Importance of Risk Minimization



Figure 21 Question 12 Employees for e-Commerce Services

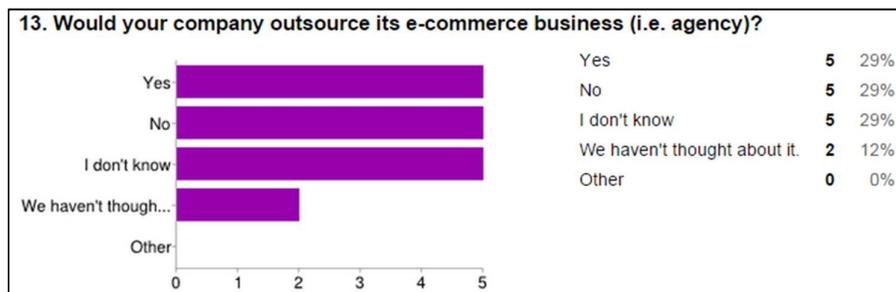


Figure 22 Question 13 Outsourcing of e-Commerce

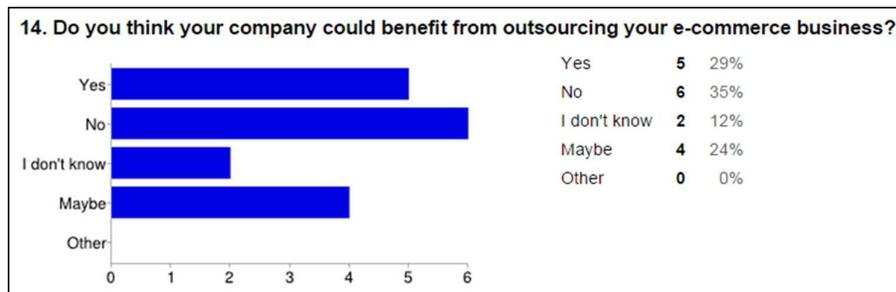


Figure 23 Question 14 Benefits by Outsourcing Workload for e-Commerce Service

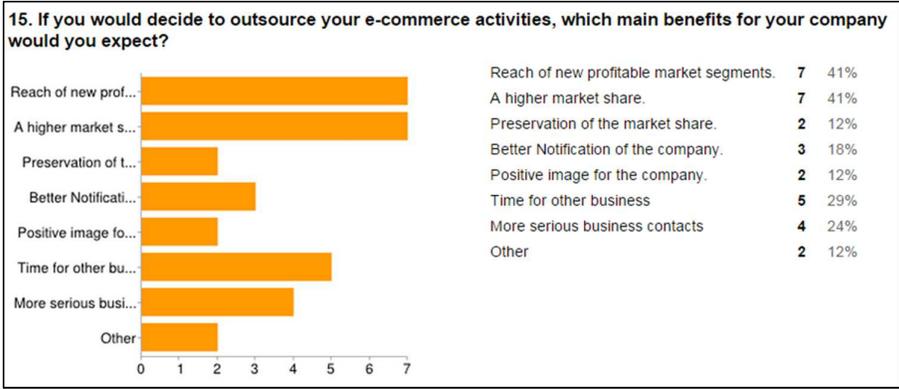


Figure 24 Question 15 Main Benefits by Outsourcing e-Commerce Service

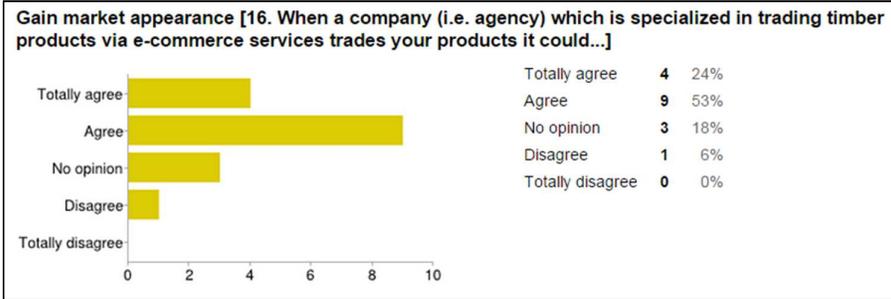


Figure 25 Question 16 Outsourcing e-Commerce could Gain Market Appearance

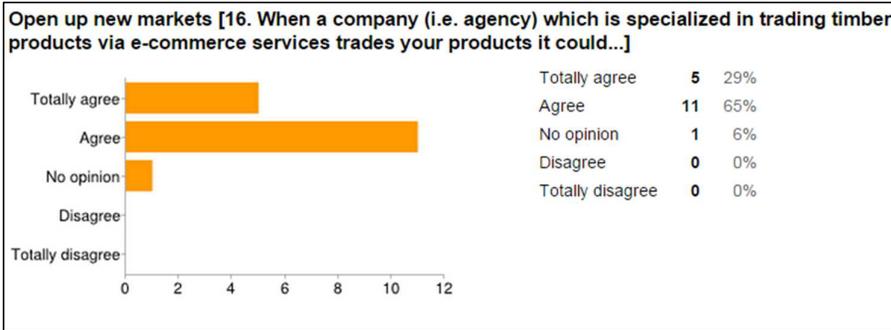


Figure 26 Question 16 Outsourcing e-Commerce could open-up New Markets

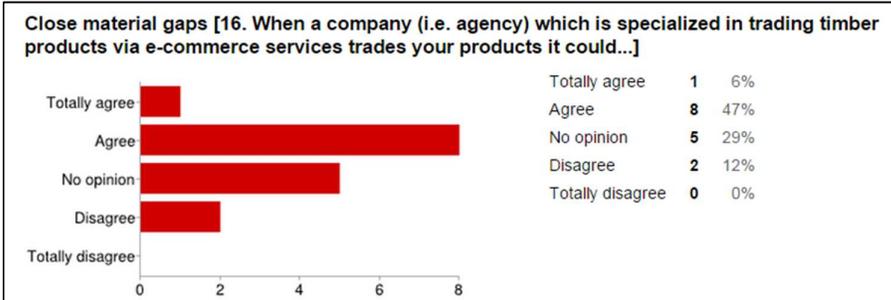


Figure 27 Question 16 Outsourcing e-Commerce could Close Material Gaps

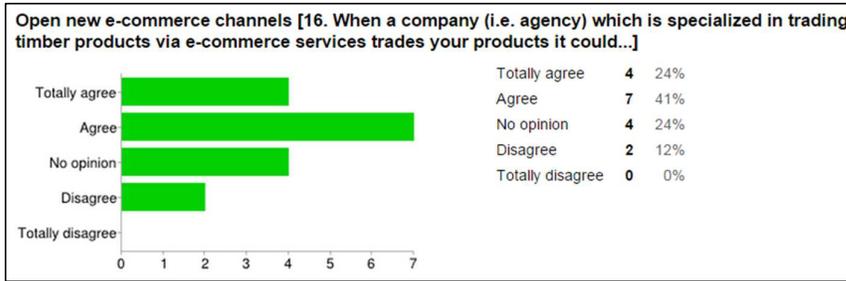


Figure 28 Question 16 Outsourcing e-Commerce could Open New e-Commerce Channels

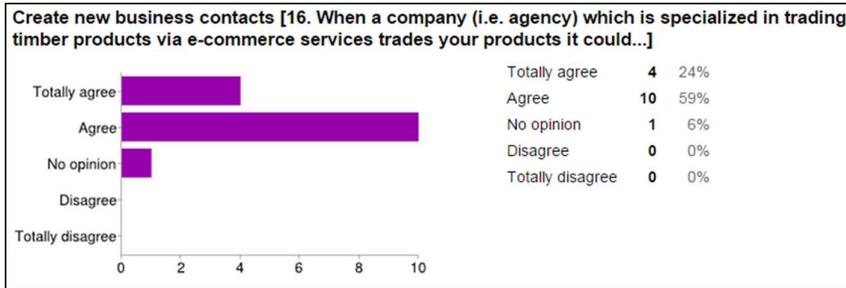


Figure 29 Question 16 Outsourcing e-Commerce could Create New Business Contacts

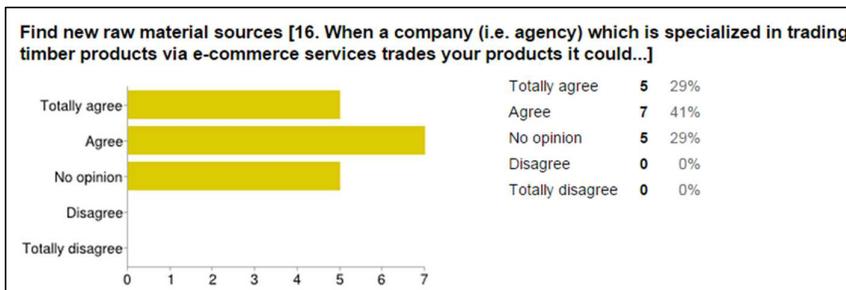


Figure 30 Question 16 Outsourcing e-Commerce could Find New Raw Material Sources

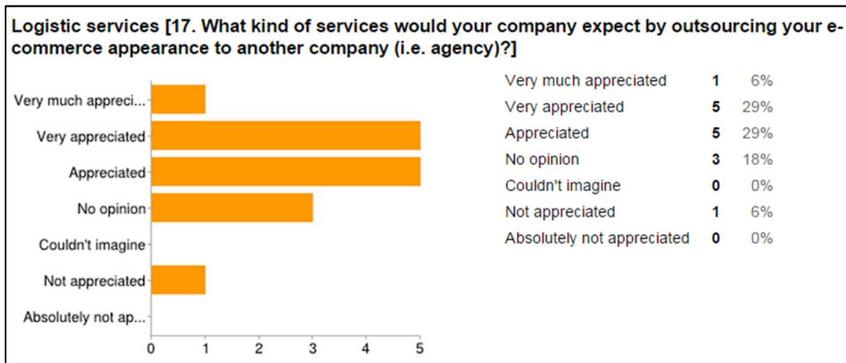


Figure 31 Question 17 Expectations by Outsourcing e-Commerce Logistic Services

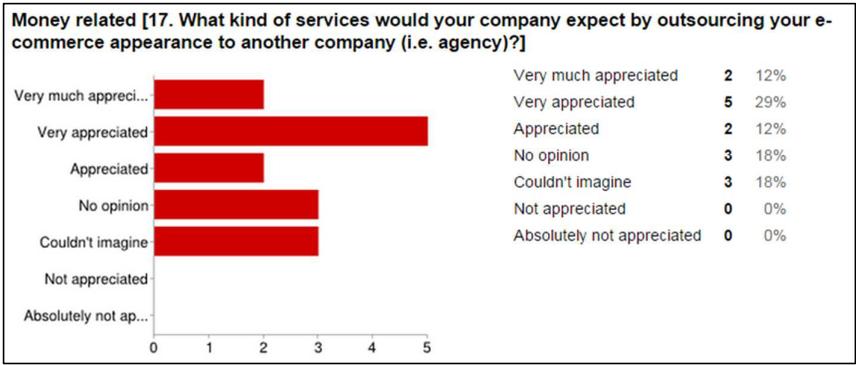


Figure 32 Question 17 Expectations by Outsourcing e-Commerce Money Related

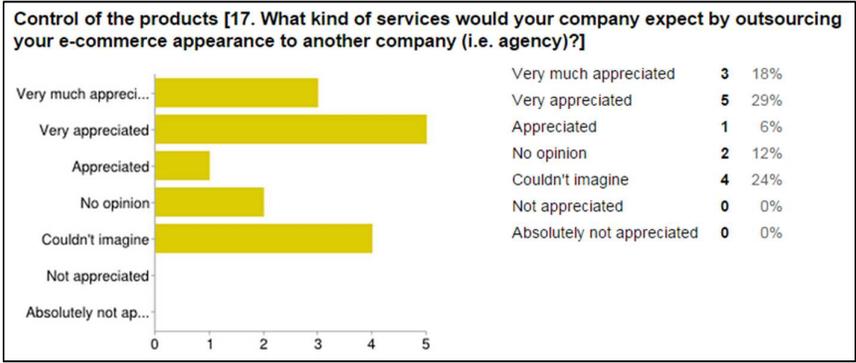


Figure 33 Question 17 Expectations by Outsourcing e-Commerce Control of the Product

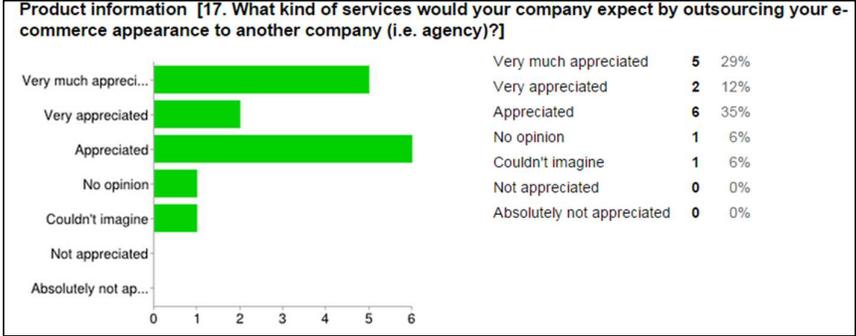


Figure 34 Question 17 Expectations by Outsourcing e-Commerce Product Information

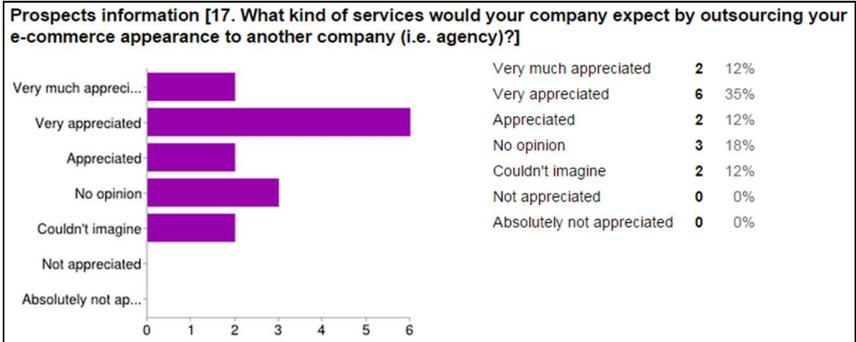


Figure 35 Question 17 Expectations by Outsourcing e-Commerce Prospects Information

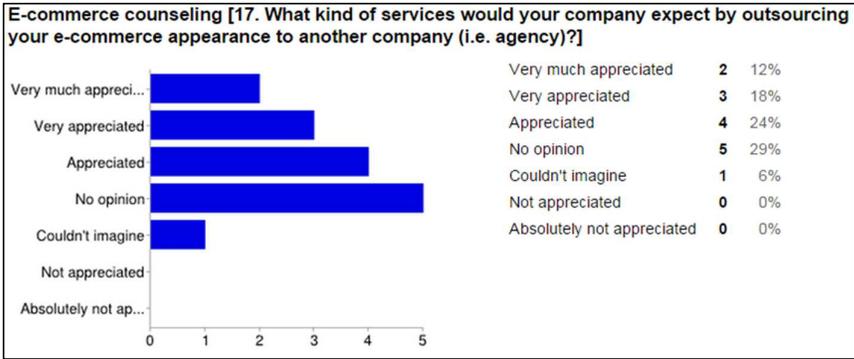


Figure 36 Question 17 Expectations by Outsourcing e-Commerce Counseling)

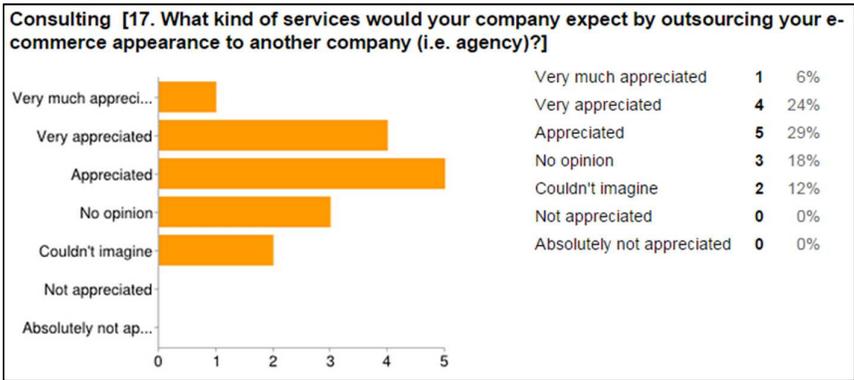


Figure 37 Question 17 Expectations by Outsourcing e-Commerce Consulting

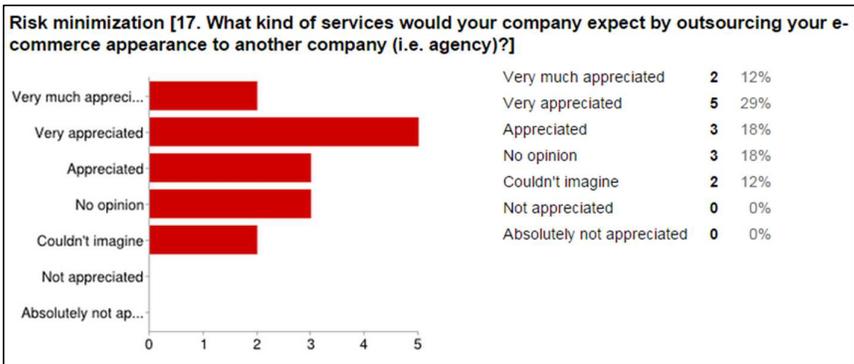


Figure 38 Question 17 Expectations by Outsourcing e-Commerce Risk Minimization

16. When a company (i.e. agency) which is specialized in trading timber products via e-commerce services trades your products it could... *

Please finish the sentence with your choice. Please choose per each row between Totally agree, Agree, Disagree, No opinion or Totally disagree

	Totally agree	Agree	No opinion	Disagree	Totally disagree
Open up new markets	<input type="radio"/>				
Increase profits	<input type="radio"/>				
Create new business contacts	<input type="radio"/>				
Harm company's image	<input type="radio"/>				
Open new e-commerce channels	<input type="radio"/>				
Gain market appearance	<input type="radio"/>				
Destroy company's business	<input type="radio"/>				
Find new raw material sources	<input type="radio"/>				
Help saving money	<input type="radio"/>				
Close material gaps	<input type="radio"/>				
Back up the company's work	<input type="radio"/>				

Figure 39 Question 16 Outsourcing e-Commerce Service Workload to a 3rd Party

17. What kind of services would your company expect by outsourcing your e-commerce appearance to another company (i.e. agency)? *

Please choose per each row between, Very much appreciated, Very appreciated, Appreciated, No opinion, Couldn't imagine, Not appreciated, Absolutely not appreciate

	Very much appreciated	Very appreciated	Appreciated	No opinion	Couldn't imagine	Not appreciated	Absolutely not appreciate
Logistic services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Product information	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>				
Consulting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Control of the products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prospects information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Money related	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
E-commerce counseling	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Risk minimization	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Figure 40 Question 17 Outsourcing e-Commerce Service Workload to a 3rd Party)

7.6. ANNEX 6: Written Questionnaire Results

1. Results Question 1: Where is your company located

Europe:

- Netherlands (2)

- Germany
- Ukraine
- Czech Republic

North and Central America:

- USA (2)
- Nicaragua

South America:

- Uruguay

2. Results Question 19: “What timber related options on e-commerce services are you missing?”

- SEGURIDAD
- You cannot "trade" in an on-line system. In the International timber trading world there is a lot of bargaining back and forth - which is part of the game - that will be lost here. So I am never actually sure if I have bought well enough.
- Transparency at the e-commerce service companies it selves.
- don't know
- None
- Technology
- dimensional check
- quantity, quality and dimensional
- Direct contact with the client for custom details in design
- none
- Quality control
- claim management
- The serious timber buyers appear to be missing, so far. It is too public.
- no enough producers on tropical countries, no quality control, not enough information

3. Results Question 22: “E-commerce services are very useful, because of ...?”

- everything
- Finding new contacts.
- new contacts
- saving time, access to more contacts
- new contacts,
- You can find companies otherwise harder to find.
- making new contacts
- Not useful
- Fast reaction time.
- contacts
- our company's appearance
- Choosing the best deals & options available on the market.
- New contacts. Company promotion
- LA RAPIDEZ

4. Results Question 22: "E-commerce services are not very useful, because of ...?"

- everything
- Not enough producers use it
- not enough information in domain of technology
- Lack of trading parameters.
- Too much spam, too many not serious contacts.
- spam noise
- much spam
- Most serious buyers work one on one with trusted suppliers, directly.
- Not serious enough, not much transparency.
- a lot of invalid information
- Too many not serious contacts
- Wasted time chasing tire kickers. Tons of spam.
- Sometimes some guys are not reliable at all! Be careful.
- too much spam, too many not serious contacts

7.7. ANNEX 7: Questionnaire LinkedIn Group List

Group	Members	LinkedIn	Date
Biomass, Wood Chip & Pellet Supply Chain	6325	link	16.12.2014
China timber, plywood and veneer trade	46	link	14.12.2014
Esri Forestry Group	3877	link	19.12.2014
FOREST INVESTMENT GROUP	5274	link	05.12.2014
Forest Management & Wood Sourcing	10585	link	05.12.2014
Ghana Wood and Timber Trade Group	796	link	05.12.2014
GoforWood.info	1198	link	05.12.2014
Hardwood Processors Forum	1761	link	05.12.2014
Het Houtdiner (Dutch yearly timber dinner for youngsters)	171	link	21.12.2014
Hout import, EUTR en FLEGT regels (NL only)	124	link	05.12.2014
International Lumber	1867	link	05.12.2014
International Timber, Sawmills & Lumber	5226	link	05.12.2014
Log & Timber Connections	1766	link	05.12.2014
Lumber Professionals Group	11628	link	05.12.2014
Lumber Wholesale Lumber Wholesale	1169	link	05.12.2014
Maison bois	1128	link	05.12.2014
NWFA: National Wood Flooring Association	3882	link	15.12.2014
Pulp & Paper / Forest Products Pulp & Paper / Forest Products	171	link	05.12.2014
Russian Wood & Timber	341	link	05.12.2014
Solid Wood Solutions	132	link	05.12.2014
Timber Expo Timber Expo	1180	link	05.12.2014
Timber Jobs	69	link	05.12.2014
Timber Network	1291	link	14.12.2014
Timber Professionals	207	link	14.12.2014
Tropical Timber Import & Export	1714	link	15.12.2014
Wood and Wood Products	5097	link	05.12.2014
Wood Badge	1813	link	14.12.2014
Wood Industry Job Network	1051	link	14.12.2014
Wood Moulding & Millwork	2542	link	14.12.2014
Wood Pellet Engineering, Manufacturing and Users Group	3377	link	14.12.2014

7.8. ANNEX 8: Discussions

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saw logs, Fir/Spruce,

Offer: 17963447
Date: 2014-Dec-06
Valid until:

Seller

Send a message

Contact

Mr. *****
(CEO)

Phone: *****
 www.*****
 Languages spoken: Deutsch,English (United Kingdom)

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in stock

Eekstraat 26
9160 Lokeren
Belgium

Tel. +32 9 348 31 09
 Fax +32 9 348 36 32
 Mob +32 495 29 15 16
 johan@houtdegroote.be

Product

Product:	saw logs
Species:	Fir/Spruce
Origin:	Germany
Region:	Hamburg

Specifications

Volume:	500 - 10000 m3
Part of tree:	First billet
Diameter:	20 cm
Length:	5 m
Quality:	B/C
Comment:	Spruce logs 1180cm and 510cm ready for shipment

Figure 41 Offer Lindner TIMBER Fir/Spruce saw logs

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saw logs, Douglas / Larix,

Request **17976143** | Date 2014-Oct-22 | Valid until: 2015-Apr-20



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Product

Product:	saw logs
Species:	Douglas / Larix

Specifications

Volume:	500 - 25000 m3
Part of tree:	Without top
Diameter:	15+ cm
Quality:	BC
Comment:	We are searching for sawlogs Specie: Douglas / Larix

Price & Conditions

Buyer



[Send a message](#)

Contact

Mr. *****
(CEO)

Phone: *****
www. *****
Languages spoken: Deutsch, English (United Kingdom)



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Uw Houtspecialist!



Eekstraat 26
9160 Lokeren
Belgium

Tel. +32 9 348 31 09
Fax +32 9 348 36 32
Mob +32 495 29 15 16
johan@houtdegroote.be

Figure 42 Request Lindner TIMBER Douglas-fir/Larch saw logs

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ALL FORDAQ



All types of plywood
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Four sides planed Spruce radius 3 ABC quality 45x*****

Offer **17927012**
Date 2014-Jul-30
Valid until:



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Phone: +372 52 488 23
http://www.puidukoda.eu/en
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Product

Species:	Spruce (Picea abies) - Whitewood
Origin:	Raw material from North Russia

Specifications

Volume:	0 - 240 m3
Thickness:	45 mm
Width:	95-245 mm
Length:	3600-6000 mm
Grading system:	Nordic TC (blue book) grading rules
Quality:	Visually graded ABC from C24 production
Drying:	Shipping dry (KD 18-20%)

Figure 43 Puidukoda's Actual FORDAQ Ads