



Sustainability Aspects and Their Importance for Nordic Customers

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ABSTRACT

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This Bachelor's thesis was conducted with co-operation between Sales and Sustainability teams at UPM Communication Papers. The research was commissioned as a part of a bigger research on sustainability. The objective was to find out what aspects of sustainability are prevalent in the Nordic business area as of today and the future.

The theory part illustrates the background of the sustainability movement and how sustainability is then implemented in practise in the case company. The research was executed with two methods. Initially interviews with 13 participants were administered and then the findings were utilized in an internet survey. The survey further investigated current sustainability aspects from the customer's angle.

The results highlight that the key to maintaining good customer relations is transparency of the sustainability actions. Good reputation must be upheld with high standards and emission reductions that are based on science. The key phrases remained in line with the expectations, hence UPM has targeted valid aspects in their sustainability objectives and strategy. In conclusion, sustainability metrics are monitored by all customers and therefore the consistency on improving sustainability must be a priority.

Key words: Sustainability, Climate action, Paper industry, the Nordics

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ABBREVIATIONS AND TERMS

UN	United Nations
OSD	Office Supply Distributor
GHG	Greenhouse Gas
Paris agreement	Treaty to limit temperature rise to 1.5°C preindustrial level (UNFCCC, n.d.)
CO ₂	Carbon dioxide, harmful compound to the environment (greenhouse gas) (Nasa, 2022.)
Biodiversity	Earth's variety in all living species, from animals, plants to bacteria and fungi (National Geographic, n.d.)
Stakeholder	Individual or a group that is impacted through the company business outcome (Corporate Finance Institute, 2022.)
SDG	Sustainable Development Goal
Private sector	Segment of the economy, comprised from actors not owned by the government (i.e., companies) (Indeed, 2023.)
Auditing	Inspection or an examination, done to verify activity meeting the requirements (Corporate Finance Institute, 2022.)
Effluent load	Wastewater, treated or untreated (WasteWaterClub, 2021.)
Effluent treatment	Wastewater treatment (WasteWaterClub, 2021.)
COD	Wastewater that has been treated, measurement of discharged water having organic compounds that can pollute the environment (Hach, n.d.)
Biomass	Organic material that can be used for fuel or heat (U.S. Energy Information Administration, n.d.)
FSC	Forest Stewardship Council, Certification for committing to responsible forestry (FSC, n.d.)
PEFC	the Programme for the Endorsement of Forest Certification, Forest certification system (PEFC, n.d.)
EcoVadis	Business Sustainability rating provider (EcoVadis, n.d.)

TfS	Together for Sustainability, chemical companies' sustainability performance measurer (TFS, 2022.)
BAT	Best Available Techniques
SBTi	Science Based Targets -initiative
Combustion	A chemical reaction, where energy is created through heat (Britannica, n.d.)
Key biotope	small area, important in natural biodiversity conservation (Forest.fi, n.d.)
Gold standard	Offsetting platform, where the impacts are directed to carbon footprint reduction (Gold Standard, n.d.)
Verra	Non-profit organization, standard setting for climate efforts and sustainability, carbon market program (Verra, n.d.)
Greenwashing	Company that marketizes themselves as sustainable to gain consumers' favor, while not minimizing their environmental impact as effectively as possible (Earth.org, 2022.)
GRI	Sustainability reporting support provider (Global reporting, n.d.)

1 INTRODUCTION

Climate crisis steers the paper industry to be more sustainable. The scarcity of natural resources gained more attention after both World Wars. Humanity realized with the focus to have an inhabitable Earth, there must be efforts to mitigate the effects of climate change worldwide and accordingly ensure the same opportunities for future generations in a peaceful world.

This thesis's main goal is to collect and analyse market data from the existing pool of customers of UPM Communication Papers and then produce a case study - an overview of sustainability aspects and expectations of selected customers. The project's objective is to reveal and highlight the sustainability themes that are current overall to the geographic business area. The sample group was selected in cooperation with the Nordic sales and Sustainability teams.

The thesis has two research methods, in first one: an open-ended interview and second: a web-based survey. Approaching sustainability through these two methods and working with different paper-based (segment) companies should give a wide enough inspection into the changing sustainability requirements in the Nordic paper market. What is prevalent contributor today is also important information in UPM Communication Papers as the leading graphic paper manufacturer. The aim is to strengthen customer relations through customer-oriented target setting. This thesis will be a part of a wider inspection to sustainability in UPM Communication Papers.

The thesis will not include the economical side of sustainability in UPM, and the scope will only discuss the topics surrounding ecological sustainability and social and cultural sustainability. Theory and framework for the research part is crafted to showcase the practices of UPM and give background information on the discussed topics in the research part.

2 OBJECTIVE AND RESEARCH QUESTIONS

The idea for this project was created from the need for a survey and analysis of the topic from UPM Sustainability Team. The objective is to find the main themes in sustainability that are contributing to the change in paper industry. The research is part of a bigger analysis of how as a paper manufacturer, UPM Communication Papers could contribute and serve better as a partner, in a sustainability forward changing market. The hope is to shine a light for the Stakeholder team (at UPM), on what are the customer's wants, and wishes are concerning the future of the business and the whole paper-based industry.

The thesis is only concentrating on the external factors of sustainability (ecological and social side of sustainability), leaving the economical side of sustainability completely from the scope. The economical side of sustainability is reflective of internal sustainability in UPM and therefore the matter is left completely from the thesis. The selection of topics is illustrating effectively, the main ideas and themes of sustainability that concern customers most (external factors).

The basis of selecting the customers ("sample group") for the project is geographical – the selected customers are all from the Nordic business area and the selected customers are all currently operating in the following countries: Finland, Sweden, Norway, and Denmark. This selection is done to have more consistent and coherent conclusions that reflect the main ideas and values for the specified geographical business area. The scope for the sample group origins is legitimized in the chapter 4.2. Chapter aims to also demonstrate how the area has handled sustainability themes over the course of history and how that has shaped the business area to its current state. The collected data from a specific customer is presented according to the customer segmentation, hence making this thesis more open to the public, while maintaining confidentiality with the partnering (case) company, UPM Communication Papers. The segments are presented in chapter 3.3.

Research questions 1 and 2 are answered in the first part of the research – the semi-structured interviews. The questions in the interview (Appendix 2) are

crafted in a way that steers the conversation around the customers' own sustainability actions and what themes are vital in market competition today and looking further into the future. These two questions also are the basis for the survey.

(1): What are the main sustainability themes of the future in UPM customer base in the Nordic area?

(2): What themes around sustainability in the paper business are rising in importance in the near future in the Nordic area?

Research question 3 is answered in the latter part of the research, in the web-based survey (Appendix 3). The objective is then analysing the data in a figure form, where the main findings are presented clearly and then further analysed. The data collection is produced through a web-based survey, where the findings of the first round of interviews (sustainability themes) are asked to be ranked in importance. Other topics of importance/relevance are also questioned in the survey part of the research.

(3): What are the sustainability aspects that are most prevalent in the market today in the Nordic area?

2.1 Structure

The report starts off with an introduction to the case company. The third headline also includes information about the customer segments and what are the end-use areas for the product in UPM Communication Papers' customers. Headline four discusses the theory of sustainability and how in the practice is based on the sustainability goals (17) of the United Nations. The fifth headline provides information on how sustainability and the 17 targets of the UN are implemented in practice at UPM. The sustainability themes described in the thesis are all central to the findings of the qualitative interviews and quantitative survey, produced in the thesis.

The focus and viewpoint of this thesis are to discuss the sustainability theme according to the United Nations Sustainable development goals (17) and give an

insight to sustainability in the Nordic paper market. Sustainability is so extensive as a topic that relevance to this thesis and the limitation of the subject is in order. Headlines 6 and 7 present the findings of research in figure and table form. The analyses are also included in these headings. The conclusions and discussion headline then present the analyse of the collected data.

2.2 Methods

This thesis is conducted as a case study, with a mixture of qualitative and quantitative research methods, following the multiple case study strategy. The case study has no official methodology. The *case study method* approaches the topic from real life perspective. The context is formed from the multiple research methods. The study conclusions cannot be generalized, because they can be only referenced through the case in hand. (Kananen, 2013, 22-29.)

To have a reliable consensus of the data, the triangulation strategy is used. Triangulation refers to a working method that encapsulates a way of research, that aims to combine multiple research methods. The intention of this strategy is to increase the reliability of the research. (Kananen, 2013, 33-34.) The topic is broad, that one study method is not enough to comprehend the topic entirely. In this thesis, triangulation is reached, when both qualitative and quantitative methods are used. The thesis study starts of with themed interviews, with the intention of gathering data for the next phase, survey. Both data collections are analysed separately and then gathered for a bigger analysis on the subject matter.

3 UPM - BIOFORE COMPANY

UPM is a forest industry company. UPM has a long history in Finland, and it is a result of Finnish industrial evolution in the 19th century. The pressure for 'industrialization' in Finland rose from the European export demand of timber, paper, and other wood-based products. This was the catalyst for a big merger, with several sawmills and pulp- and papermills combining efforts and forming a new company, UPM Kymmene Oyj. (UPM's Family tree -from the roots to the leaves, 2019.)

A new era of digitalisation with pivotal changes to consumed media had hit the markets by the 2000's. The change contributed to the decreasing demand for paper. This trend has lasted ever since and hence by the year 2006 UPM invested more and more on new innovations from the materials gathered from forests, such as fibre and other biomass. The reformed company announced, that the new name for the company from the year 2009 onwards is "The Biofore Company". The name reflects their strategy, purpose, and values and the 2030 sustainability strategy. The name also expresses that the United Nations Sustainability targets are a central part of the whole organization core values. (UPM's Family tree- from the roots to the leaves, 2019.)

UPM group today consists of six business areas, that include UPM Biorefining, UPM Energy, UPM Raflatac, UPM Specialty Papers, UPM Plywood and **UPM Communication Papers**. Each area has their own strategy and targets. (UPM Business model, n.d.) Next there will be an introduction, to the case company – UPM Communication Papers.

3.1 UPM Communication Papers

UPM Communication Papers is a business area of the group that produces a wide-ranging product portfolio, in graphic papers. The papers are often used in advertising and publishing. Papers are also suited to be used in home and office

settings. The value given to the customer is formed with high-performance products and with service concepts. Today the focus is directed to preserve a good reputation, the leading position in the paper industry and performing according to sustainable policies and working toward targets. (About UPM Communication Papers, 2022.)

UPM Communication Papers employs approximately 6 500 people, and the headquarters is located in Germany. UPM Communication Papers is approximately 33% of total sales under UPM. (UPM Annual Report, 2021.) Paper in UPM is divided based on end usage into 3 groups: fine, newsprint and magazine papers. The production capacity for newsprint is 1,0 million t/a, fine 1,8 million t/a, and magazine papers 3,2 t/a (tons/annual) across the mills currently operating. (UPM Postal Papers, 2022.) The business area has currently 12 operating paper mills: Ausburg, Blandin, Caledonian, Ettringen, Schongau, Hürth, Jämsänkoski, Kaukas, Kymi, Plattling, Nordland, and Rauma. (Communication Papers, Our Paper Mills, n.d.)

3.1.1 UPM Sales Oy

This thesis is implemented in cooperation with the UPM Sales team, which is located in person in Tampere. The Sales team is a central part of the paper supply chain. The customer service team is divided into two smaller groups (the Nordic and Overseas) according to their duties in different geographical locations. Nordic team is responsible for markets in Finland and the rest of Scandinavia (Sweden, Norway, and Denmark), and the Baltics (Estonia, Latvia, and Lithuania). For this thesis, the focus is directed on the Nordic team, due to the nature of the selected customers. The customer service specialists combined with the sales agents are cooperating in handling and entering the orders from customers into the UPM's own operating system. Customer service's daily tasks include answering any questions customers might have about the product portfolio and certifications. Specialists also oversee and report to the whole organization about customers' initial reactions to paper market changes. The billing is automated in the Nordic market. Communication between many cooperating partners (customers, sales

agents, carriers [logistics], and customer and in-house warehouses and -staff) is in daily work tasks.

The word allocation is a process where a part of the whole amount is divided to a customer for specific use. (Cambridge Dictionary, n.d.) In this case, the total share is the paper in tons that is produced and ready to be shipped each month from working mills. Allocation is then predicted from annual sales targets. Customer Service specialists together with sales are in charge of updating the system on allocation and forecast changes in all segments and customers.

3.2 Paper applications

The end use of certain paper grades depends on many factors from printing methods used to paper quality and characteristics. This chapter will only discuss where the portfolio of UPM Communication Papers can be used, and it will leave out the specified information about paper grades. This limitation is part of keeping the information provided in this thesis only central to the research. The most common end-use for the paper is publishing customers, which most often are specialized in newspaper- or book printing. The paper can be printed to other examples of printed media: magazines, catalogues, advertisements, direct mail, brochures, manuals. (UPM, Book publishing, n.d.) With higher basis weight and durability paper can be used for packaging. (UPM, Packaging, n.d.)

UPM offers a wide range of paper grades that are supplied in three format groups: “cut-size”, folio sheets and reels. Sheet formats depend on the end use of the paper and often they are divided into two categories dependent on the size of the sheet: parent-size and junior-size sheets. The “cut-size” name is synonymous with the junior-size sheets. The name refers in UPM sheets cut to standard size. It means smaller than A3 or from the standard size of A3-A5. Folio sheets are a paper product, formally named the parent- size sheet. The term refers to a sheet that is cut according to customers’ own needs, typically with dimensions larger than A3. (ForestBioFacts, Sheet finishing, 2020) Reels are the paper wound into a roll and then sold with parameters (width and length) that fit the customers’ needs.

3.3 Customer segments in Communication Papers

The end-uses is the key component and the basis for segmentation in Communication Papers. Customer segmentation is a process where the company organizes its customers into groups based on shared behaviors and/or characteristics. (Twilio Segment, n.d.) For daily operations segmentation is crucial at international operations, creating a basis of handling many customers at a time. It also provides a more coherent way for the Sales department to divide and visualise the individual end uses for the produced paper.

The segments and their meanings are explained shortly, to give an insight into how the manufacturer-buyer (stakeholder) relationship has been divided in the paper market at UPM. The segments that are included: retailers, publishers, merchants, OSD (Office Supply Distributor), and converters. The provided explanations and segments are following UPM Communication Papers' own grouping method, and therefore cannot be generalized for all paper manufacturers.

A retailer is a company that buys the product straight from the manufacturer and then sells it further to its own customers. Most often retailers know the specifics of their own customer base – thus having more targeted marketing tactics. (My Accounting Course, n.d.) Retailers buy mainly reels.

Printers are often commercial operators, that offer different size batches of printing for consumers and for large-scale printing. The printing could be manufactured for publishers (customers) or for advertisements. Printers more often buy the paper in reels, sometimes smaller batches in “folio sheets”.

Publishers are a customer segment that focuses on publishing newspapers, magazines, and books. Publishers can have their own printing plans, or they can utilize commercial printers. Publishers buy mainly the paper in reels.

Merchants are paper wholesale customers. Often each customer has their own warehouses where they buy stock and later, they resell the products further to

their own customer base. Then other orders are shipped through them straight to the customers. Merchants buy mainly “folio sheets”.

OSD or Office Supply Distributors are customers that supply a wide range of Office supply products to their own customers. This segment often has paper as only one of the products that they offer in their catalogue/portfolio. This segment is the largest “cut-size” buyer of the customer base in UPM.

Converters are a business segment where the customers buy the raw material from the manufacturer, in this case, UPM and then they further refine the product to the intended end-use. Often the end-use is something related to the customer’s own specialty or something very specific, like envelope materials or cash register tape.

4 SUSTAINABILITY

The 19th century came with big changes - one of them being industrialisation. The growing and prospering populations created the need for resources to cover the new era: bigger consumption, and production. Cheap options for energy resources, like oil and coal with great efficiency were used. Through using them, emerged unheard environmental issues. From those challenges arose the sustainability movement. (Rubicon, Rachelson, 2018.)

First and foremost, it is important to determine what emission as a word means and how it is related to the surrounding theme. Emission refers to a substance that is let out into the air, and it has negative impacts on the environment. (Cambridge Dictionary, n.d.) Humanmade emission, from CO₂ to other greenhouse gases (GHG) are the primary drivers of climate change. The word “climate change” is referring to a global scale phenomenon, where the temperatures and weather patterns are shifting. Carbon dioxide (CO₂) emissions and other GHG, are the catalysts for the phenomena. They trap the heat emitted by the Sun and Earth, to the surface of the Earth, consequently aggravating the effects of climate change. (United Nations, what is climate change? n.d.) Fossil energy resources make up around 64 % of the CO₂ emissions worldwide. (Annual report, 2021.)

Challenges arise with ever-changing climates and extreme weather patterns. Every aspect of human life from our ability to grow food to safety and work will be endangered. The rate change that has happened in recent history is not only concerning but in a bigger picture a major problem that all should be worried about. (Swiss Re Group, 2021.)

Sustainability is the mission for stopping the climate crisis, created by the substantial value-based shift in the world. Sustainability and sustainable development are intertwined concepts. Sustainable development follows the principle of economic growth whilst acknowledging social, environmental, and economic prosperity. Sustainable development has developed and shifted over time and is today more comprehensive than ever, including more variety of perspectives on sustainability and how it should be executed. It will always mould to fit the current

most up-to-date information about how to halt climate crisis. Currently, sustainable development has been characterized by three focus areas, ecological sustainability, economical sustainability, and social and cultural sustainability. (Ministry of the environment, n.d.)

Ecological sustainability aims to sustain biological diversity and ecosystem functionality while human activity from a material and economic point of view is adapted to nature's resilience. Economical sustainability is aiming for economic growth that does not rely on indebtedness or loss of reserves. Reliable and sustainable economic status creates the base for social sustainability. Social and cultural sustainability aims to guarantee means of wellness to be passed on from generation to the next one. The wellness of the population correlates then to more means of maintenance of ecological sustainability. (Ministry of the environment, n.d.)

Ensuring competitiveness, while participating in climate action are two key components in today's business metrics. (UPM Annual Report, 2021.) Sustainable development Goals, the UN Framework Convention on Climate change, and the Paris agreement all are guide processes to preventing climate change and they all support each other in practise. (United Nations, what is climate change? n.d.) In addition, there has been a development toward the circular economy. Circular economy supports the processes, where the resources and products stay in use and can be safely recycled back to raw materials. The model is implemented in various industries to minimize waste and use all resources in an efficient way. (Ministry of the Environment, n.d.) Implementing circular economy is central in the paper industry, and it is one of the ways to combat resource scarcity.

There are multiple terms for the development that needs to happen in order to prevent catastrophic effects of climate change and to halt the global temperature rise. Net zero, Carbon neutral, Climate Neutral all are acquainted to the same cause. The different terms are used simultaneously, but they refer to slightly different context. Net zero is agreement based on scientific research that there needs to be CO₂ emission reduction of 45 percent by 2030 (versus 2010 levels). Secondly, it is important to reach the targets all around the globe by 2050 (cutting the emissions as close to 0 as possible). Net zero means a balance between

greenhouse gases released and then gases that are removed from the atmosphere. This movement must be permanent in order to succeed, and the reduction will start from efforts from the coalition of committed countries, cities, and other institutions (e.g., companies). (University of Oxford, Net zero, n.d.) Table 1 introduces also multiple other useful phrases for the context of this thesis.

TABLE 1. Net zero phrases (University of Oxford, Net zero, n.d.)

Carbon neutral	Actor has 0 net contribution to CO ₂ emissions - actions are fully compensated, or removals are claimed by the actor
Offsetting	Reduction of GHG emissions or removal of GHG through external to an actor - often through exchange mechanism or with marketplace carbon credits
Compensation	Reducing emissions or increasing the removals to compensate the created emissions, often done by offsetting
Climate Neutral	When actor's emissions have no effect on climate, - GHG removals
GHG removal	Removing GHG from atmosphere - reforestation, bioenergy and soil enhancement, etc.

Emission reductions, at a company level, can be managed through offsetting schemes. The remaining emissions that currently cannot *yet* be reduced, are then financed in external projects (i.e., forest preservation, tree planting, and reducing to use of fossil-based resources). The offsetting rises in importance, due to more companies having clear and set goals towards Net-zero. Currently, there is no aligned adopted way to offsetting, but in the future, the standard bodies (e.g., Gold Standard and Verra) will establish the certified actions to reach carbon neutral status. (World Economic Forum, 2022.) Emission offsetting is currently a part of the service portfolio in UPM Communication Papers (Gold Standard).

4.1 Categorizations and indicators

To better understand and characterize the types of emissions and their impact, there are multiple indicators, calculation methods, and systems in place. They are there to integrate and mould a universal way of expressing attributes regarding sustainability across the whole industry and in intersectoral debate. The universally known, relevant to this thesis, indicators are presented in this chapter.

One way that organizations categorize emissions is through a Scope system (table 2). Table 2 also gives few examples of scopes extent to provide real-life context. The system is prevalent when talking about greenhouse gases (GHG) and their origins. Scope system is a accounting tool for companies to manage and report emissions throughout their value chain. Achieving carbon neutrality for companies requires consideration of all scopes [3]. (Carbon Trust, n.d.)

TABLE 2. Scope definitions, (Carbon trust, n.d.)

Scope 1	Scope 2	Scope 3
Direct emissions from reporting company - e.g., Own energy production	Indirect emissions consumed by the reporting company - e.g., Purchased energy	All other indirect emissions in value chain - e.g., Purchased goods or services

After discussing where the emissions originate, it is important to note the impacts of those emissions. The Carbon footprint has been a widely used method for estimation for years. The calculation assesses the volume of GHG and emission gases and their contribution to climate. The emission measurement then compiles the findings in carbon dioxide [CO₂] equivalence. The equivalence is a unified way of concluding and discussing the impacts of emissions between different industries and companies. (Conservation, n.d.) As high energy demand and high emission industry, the paper industry is very keen on calculating the amount and quality of emissions. The Carbon footprint is one unambiguous way to enable such monitoring.

The Science Based Targets initiative (SBTi) is a driving actor for companies to handle their emission reduction target setting. The initiative has active promotions, on how to direct practices in aiming for net zero. The initiative also plays a part in verifying the net zero targets, ensuring that they are based on the latest factual science and have a set timeframe. (World Resource Institute, n.d.) UPM for example is a part of the initiative. Another widely used sustainability ranking provider that UPM is cooperating with is EcoVadis. EcoVadis provides performance listing and then distributes it to all stakeholder parties. (EcoVadis, n.d.) With the cooperation the all the sustainability themes are strengthened through audit management.

4.2 Nordic sustainability

For better background knowledge of the thesis, this chapter tries to give a brief insight into what Nordic countries (Denmark, Norway, Sweden, and Finland), in this context leaving Iceland, have done over the course sustainability forward changing world and way of business thinking.

The Nordic business area is noted to be sustainability forerunners, even on an international scale. The Nordic countries have all been active in the discussions since the launch of UNEP (United Nations Environment Programme) [1972], which later evolved into the SDG's (2015) that we now follow. The themes of sustainability and how to practise them in real life are thus ingrained into the society from the years of implementation. (The Nordics, n.d.)

With being active partners in the next steps towards a more sustainable future, the Nordics have implemented the goals in a practical manner to all aspects of life, from businesses to national regulation with great success. There is also a label "The Nordic Swan Ecolabel" that is active in the region. The ecolabel tightens the requirements for manufactured and consumed products and assessment for the label are based on how the product impacts the environment throughout its life (Life Cycle Assessment). (The Nordic Ecolabelling, n.d.)

By 2030, Nordic Council of Ministers has a mission, for Nordic countries to have cohesive targets towards sustainability. The initiative and its targets are based on UN's Sustainable Development Goals (Appendix 2). (Nordic Co-operation, n.d.)

To summarize the Nordic region has a long history in sustainable development and thus making the region the subject of the research can bring a new viewpoint to UPM. Strict legislation around sustainability aspects has steered the region to reach even the most ambitious of targets. The selection of customers from the Nordic business area, by nature, is well versed in sustainability themes and often requires more accurate up-to-date information to sustainability themes from their business partners. The Nordic region has all been active members of the United Nations SDGs since the start and thus they have been contributing to the development over time. The core idea is also to find the aspects in sustainability that are important from the customer's perspective - how to better serve as partners in Nordic business area, where extensive efforts towards sustainability have already been made.

4.3 United Nations and the Sustainable Development Goals

United Nations is a global organization that was founded at the end of the second World War in 1945. The organisation's main purpose was to create a global stage for the involved states and governments to discuss and develop further the issues benefitting humanity. Sustainability and sustainable development are an integral part of the UN's functions, and the UN is the frontrunner in the sustainability matters. Currently, there are 193 members, and the action of the organisation is divided between the main bodies. (United Nations, About Us, n.d.)

Sustainable Development Goals as a topic will be briefly discussed, as the scope of this thesis will be more focused on UPM sustainability strategy which directly quoted and implemented from the SDGs. United Nation's sustainable development goals are in compliance with the 2015 Paris agreement. The agreement states the legal obligations for all members: "to limit global warming to below 2 degrees Celsius compared to pre-industrial levels". (UNFCCC, The Paris Agreement, n.d.)

The 2030 Agenda, signed by the member states in 2015, offers the framework for sustainable economic growth. The 17 goals (Appendix 1.) create a roadmap for tackling climate change from all viewpoints of life. The SDGs are implemented into five categories: people, planet, prosperity, peace, and partnership. Poverty and hunger are the main problem areas that need to be addressed so that all humans can live fulfilling lives in a healthy environment. Peace must be attained to ensure partnerships develop on a global scale – to all have the same opportunities and collaboration protecting even the poorest and most vulnerable societies. Lastly, the goals aim to protect the planet implemented through sustainable consumption and production, and conservation. (UN, Sustainable Development Goals, n.d.)

The value that the agenda offers is based on two points: its goals are meant to be implemented as is for every country in the world and it has strong mutual interdependence between the 17 goals (i.e., meaning, that the goals must consider the main three dimensions of sustainable development full-time: economic, environmental, and social). In addition companies have a substantial role in reaching the goals. Companies' efforts often are related to the eco-friendliness of the portfolio, minimizing the environmental load of the processes and social aspects as a responsible employer. (Kestavakehitys.fi, n.d.)

5 SUSTAINABILITY PERFORMANCE AT UPM COMMUNICATION PAPERS

Sustainability and sustainable development are the basis of every operation in UPM Communication Papers. For a forest-based industry's overall reputation, social responsibility throughout the whole value chain and responsibly acquired materials are irreplaceable values. These are only a few ways of implementing lasting influence on sustainability and how it is practised in the policy. Sustainable development is a key factor of the growth and competitiveness in the company. (Annual Report, 2021.)

The commitment to sustainability can be seen throughout the whole value chain in UPM. Responsibility applies to everyone, from the workers to the board of directors. The rule is that there is no option to compromise on sustainability in any circumstance. Reliability is maintained with all stakeholder parties with transparent sustainability actions. The development is viewed through multiple indicators and systems and then evaluated by the Compliance team internally. Monitoring and follow-up systems (audits) are in place to ensure that compliance is reached in every organisational level. UPM responsibility reporting is based on GRI standards (Global reporting initiative). (Annual Report, 2021.)

All sustainability actions begin with sustainable growth - to serve the customers and guide them to better decisions with climate-positive products that do not rely on fossil-based materials. By nature, paper is sustainable, due to its nature being produced from renewable raw material, wood. The paper product is always either recyclable or biodegradable, ergo the life cycle paper products are contributing to circular economy practises. (UPM Paper, Sustainability, n.d.) Research and development is integrated heavily into the Sustainable Development Goals and UPM's own 2030 agenda (it is the implementation plan for SDGs in UPM). In the year 2021, UPM spent 21,3% of its income on research and development. Circular economy implementation and stakeholder assessments are the key in UPM, to Scope 2 and 3 (table 2) products and services. These actions have a positive impact on other industries as well. (Annual Report, 2021.)

Options for carbon emission reduction were expanded in 2021 in UPM Communication Papers, when the portfolio was renewed with a carbon-neutral paper. The intent is to be an option for customers to minimize carbon-related emissions from their value chain (Scope 3 and Carbon footprint). (Annual Report, 2021.) All the information about paper's environmental declarations is linked to Paper Profile in UPM. Paper Profile is a registered trademark. (PaperProfile, n.d.) The information is free to use and declared for each product on UPM Paper sites. This practise unifies the environmental assessments for each product separately and enforces well-informed decision-making from the customer's side when acquiring and buying the paper. (UPM Archive, 1999.)

5.1 Commitment to SDGs

The sustainable development goals are a central part of the agenda 2030 for UPM. Targets that UPM has set have a timeframe to be reached by the year 2030 and each year the progression is reported in the Annual report. 2030 targets are a practical way of implementing SDGs into Communication Papers' future and practise and how the targets are reached in the long run. The targets are described on the surface level. Further deep-dive and specifications are not pivotal for this thesis.

The Global Compact is an initiative, where the participants are, with the help of the UN, committed to following the essential steps to sustainable development. UPM joined the initiative in 2003. Global Compact LEAD companies and partners are all very committed to acting strongly based on sustainability principles. UPM is one of the 37 LEAD companies, being the only Finnish representative amongst the group. (UPM Responsibility, 2020.) In the year 2021, UPM joined, also the Climate Pledge, aiming actively to achieve carbon neutrality by 2040. The Pledge is aiming to be 10 years ahead of the Paris agreement (2050) in its target setting. Through the initiative, the commitment to multiple SDGs is even further emphasized. (Annual Report, 2021)

The responsibility agenda provided and specified by UPM is also accurate in UPM Communication Papers and thus the agenda will be discussed under each

headline at the group level and then specified for Communication Papers' viewpoint. The Sustainable development goals that UPM has pledged to follow (6) are 6 (Clean water and sanitation), 7 (Affordable and clean energy), 8 (Decent work and economic growth), 12 (Responsible consumption and production), 13 (Climate action) and 15 (Life on land) (Appendix 1.).

The other 11 goals can be indirectly or to a smaller extent credited to UPM's operation and thus they have been excluded from the initial most important goals (6). They are still considered and there are actions contributed to them naturally. All targets chosen for the list were addressed in the internal research on SDGs and they were analysed on the direct impacts covering all perspectives of operations in UPM. The choice of targets was based on the scale of contribution and the significance of the impact. (Kulta & Palomäki, 2020.)

Goal 6 in UPM is prioritised in minimizing the impact on water resources (waste water and pollutants), which leads to also increased recyclability. (UPM Sustainable Development Goals, n.d.) UPM Communication Papers has promised a reduction of the effluent load (COD) by 40%, wastewater volume by 30%, and using 100% recycled materials at effluent treatment by the year 2030. Other contributions to goal 6 are ensuring safe drinking water and sanitation access across all operations. (UPM Paper, Ensuring sustainable paper production. n.d.)

Goal 7 is all about clean energy and its efficient resourceful use. The target aims to increase the share of renewable energy: 70% of the fuel share being renewable. That target has been reached from the start of 2021 and is continuously maintained with the necessary actions. CO₂ -free electricity is the main goal group-wide and strides for it are made by other business areas of UPM. Energy efficiency, 1% improvement rate (at all mills), has been achieved with innovations and energy audits. (UPM Sustainable Development Goals, n.d.) From the 2015 level there is a 2030 target to minimize emissions by 65%. The calculations are SBTi (Science Based Targets initiative) approved. (UPM Energy efficiency, n.d.)

Goal 8 is centred on bioeconomy and productivity, and creating decent employment. Target 8.5 focuses on creating an equal workplace for all genders and ages, and for people with disabilities. A participatory and inclusive workplace is a

prerequisite for success. In essence UPM strives for an equal and diverse work environment. Equal pay for an equal value of work has been a priority in 2021, where the unexplainable pay gap between men and women is eradicated through an equality review and the review is globally ministered. (UPM Lehdistöiedote. 2021.) Women in managerial roles, having a target to reach 40% presentation rate, is a target for 2030 in UPM. UPM also sends a report to Blomberg GEI (Gender Equality Index) to measure the development of gender equality across all businesses. (Annual Report, 2021.) Fair work environment treatment regardless of oneself background is a priority, and good opportunities in oneself career are just few ways to introduce employee wellness and to be a part of 10% of the best companies (out of the benchmark control group) to promote the work- and free-time balance. (UPM Sustainable Development Goals, n.d.)

The target 8.8 is practiced to protect labor rights and achieving a safe work environment. A safe work environment is achieved with the absence of fatalities, fatal accidents, and the minimization of injuries obtained by the workers. The target 8.7. represents that there is always zero tolerance for forced labor and child labor. (UPM Sustainable Development Goals, n.d.) The target will not be discussed further due to the scope of the thesis, not including the economical sustainability.

Goal 12 is targeting improving the circular economy through pro-longing the lifecycle and improving recyclability of all products. Management of emissions, efficient resource use and reuse, and reducing all waste are also central to ensuring a more climate neutral result. This goal is also reached through by certifying all mill sites and the products in UPM by an environmental system or by a ecolabel. (UPM Sustainable Development Goals, n.d.)

Goal 13 promotes the shift from fossil-based fuels to low-carbon operations. This goal is one of the most crucial to be acquired, hence this part of business creates the most emissions and affects the environment the most. The aim is to reduce CO₂ emissions from Scope 1 (own combustion) and Scope 2 (purchased electricity) by 65% by 2030. In the year 2021 it was declared that no coal or peat is used in energy economy. By 2030, material and logistic side of emitted GHG are to be reduced by 30%, compared to 2018 levels. (UPM Sustainable Development Goals, n.d.)

Goal 15 aims to protect forests and ensure sustainable use of forests and lands and is also one of the main focus areas of positive impacts that UPM can achieve. Sustainable and responsible forestry, and using only 100% certified fibre by 2030 are only a few ways to reach sustainability and the targets by 2030. (UPM Sustainable Development Goals, n.d.) Other actions from the value chain for improving forest health and -biodiversity is in chapters 5.2 and 5.2.1.

5.2 Sustainable sourcing and forestry

Responsibility begins right from raw material sourcing in paper manufacturing. Information on the origin of the fibre and wood biomass, while examining the environmental load and human rights, ensures the positive impact that responsible sourcing can have. Forests offer multiple benefactors; enhancement of biodiversity, while improving the ability of the forests to act as a carbon sink, i.e., the ability to store carbon dioxide (CO₂) from the atmosphere, and positive impact on local communities seeking income from the forests. UPM has committed to climate-positive forestry that is accomplished through forest certifications, biodiversity plans, and a responsible supply chain. The decision on which supplier to collaborate in the future on material sourcing is highly dependent on environmental load. (UPM Climate positive forestry, n.d.)

Carbon neutrality can be achieved through a circular bioeconomy and for the forestry sector it means actions in forest management. Sustainable forest management means forest use that maintains biodiversity while promoting productivity and regeneration capacity of the forests for the future. (ForestBioFacts, Bioeconomy, n.d.) Sourcing is also a part of maintaining forest stability- the thinning and overall forest care ensure healthier forests. Implementation of the same basic principles of responsible wood procurement, in every operation is key to sustainable sourcing operations in a global setting. The basic element is legality: the harvesting must be always legally permitted. (UPM Responsible sourcing, n.d.)

One of the ways of providing qualifications to other stakeholder parties is to source from externally audited forests that have active certification and eco-labels in place, such as PEFC and FSC. PEFC (Programme for the Endorsement of

Forest Certification) is a system that promotes ecologically, socially, and sustainable forestry all around the world. (PEFC, n.d.) FSC (Forest Stewardship Council) promotes sustainable forestry practises that consider biological diversity and the benefits to the lives of local people, while the practises are sustaining economic viability. (FSC, n.d.) When the forests are certified in either certification, the end-product manufactured from the raw material from those forests is also eligible for the certification. All paper products in UPM are eligible for either certification.

Furthermore, all parties are expected to follow the “Code of Conduct” rules and standards set by UPM. The Code of Conduct describes to what goals should suppliers commit to (i.e., environmental impact, work safety and -health, human rights and product safety). All wood recovered is also conformed to due diligence requirements (PEFC) (requirements for supplier companies to ensure responsible supply chain) or with the FSC Controlled Wood- standard. Suppliers are also continuously audited to minimize the risks. In the year 2021 UPM conducted 340 EcoVadis audits and 137 supplier audits. (Annual report). UPM has committed to being a member in TfS (the Together for Sustainability) initiative, which has set a standard across the industry, on how to recognise and evaluate the performance of the suppliers when it comes to sustainability. (UPM Responsible sourcing, n.d.)

Transparency of the practises with the suppliers, has momentous importance for risk assessment (audits). “UPM Supplier and Third-Party Code” has been established to ensure compliance from suppliers and third-party partners. (UPM Supplier and Third-Party Code, 2020.) By the year 2030, UPM has pledged that raw material spend is qualified 100% and the percentage of supplier spend is 80% against the standard. (UPM Responsible sourcing, n.d.)

5.2.1 Biodiversity action

Biodiversity means variation in genes, species, and habitats on Earth and this phenomenon is often referred to in assessments in natural ecosystems. (National Geographic, n.d.) Biodiversity must be considered when talking about paper, due to the dependency on forest and the sustainability that ensures the continuum of renewal.

UPM owns 520,000 hectares of forest in Finland. There is a group-wide Biodiversity program and the program's objective is to "safeguard" those forests that are in ownership of UPM. The program will include from 2022 onwards also water resources, soil, and social aspects from quoted areas. (UPM Paper Biodiversity, n.d.) The target has been created to achieve long-term net positive impact in forestry. UPM has also zero tolerance for tropical rainforest wood used as materials or for partnering with plantations that contribute to deforestation in rainforests. (UPM Climate positive forestry, n.d.)

There are biodiversity indicators (that are based on science-based targets) put in place to measure improvements in the biodiversity program. The main indicators visualise the real changes in the forest's structures. The focus is to have more natural forests, which in return increases the biodiversity of the whole forest area. From a conservation standpoint UPM measures the share of protected or restricted areas, the amount of protected key biotopes (i.e., an area that is crucial to attaining natural biodiversity) and the share of protected key biotopes in UPM's forests. To conclude, the number of biodiversity projects and habitat restorations in Finland are calculated annually and presented in Annual Report. (UPM Paper Biodiversity, n.d.) UPM has also been recognised by the CDP and has been listed in the A-category of companies for significant actions to minimize the effects of climate change and deforestation. (Annual Report, 2021.)

5.3 Sustainable production

Sustainable paper production is a cornerstone of sustainability in the paper business. The production, when accompanied by the latest and most eco-friendly processes is crucial to have a more sustainable future. To produce something, always requires resources and the more effective the process is the greater mitigation of waste and emissions is and less raw materials are used, thus having minimized environmental load. (UPM Sustainable paper production, n.d.) UPM is directly steering the change to more sustainable production at the factory level. The different focus areas are detected in the mills and then performance is adjusted accordingly. The production is conducted against BAT (Best Available Techniques). (UPM Sustainable paper production, n.d.)

Targets are monitored annually and reported through various management systems in a factory-by-factory basis. Two main tools are certifications and “Clean Run” -process. The Clean Run is UPM’s global platform for value creation and management of each mill. (UPM Sustainable paper production, n.d.) Certificates that are included in UPM Communication Papers catalogue are EU Ecolabel which is awarded to the product’s whole lifecycle and only products that have a low impact on the environment can be labelled with the certifications and the German Blue Angel, which is issued by Germany’s Ministry of the Environment. The German Blue Angel is one of the oldest ecolabels and it is awarded to products that are environmentally friendly. (Paper certifications, n.d.)

The UPM mills are registered with the EU Eco-Management and Audit Scheme (EMAS). Annually there is an EMAS report published – specifying in detail the targets and highlighting the environmental and societal impacts of the production from that year in every mill. For every paper machine line, there are also available annual Environmental footprint calculations, which detail the energy and resources used per tonne of product. The same calculations in addition include the carbon footprint per tonne of product. (UPM Sustainable paper production, n.d.)

Three other 2030 targets for production are related to waste, climate, and water. The waste target is accomplished by not sending process waste to landfills without trying to recover the energy from them. Minimizing the amount of waste also comes from circular economy practises, like optimization of recycling and balancing the use of virgin fibre (i.e. fibre that has not been used before [KnowPulp Dictionary, n.d.]) vs. recycled fibre. (UPM Sustainable paper production, n.d.)

“Climate” in this context is creating productions that promote the carbon-neutrality through more sustainable use and production of energy. The target for 2030 is to reduce direct and indirect (Scope 1 and 2) fossil CO₂ emissions by 65% from the 2015 baseline. Energy efficiency is also an annual improvement target (1% decrease). This has been tackled with the purchasing of wind power in UPM mills, this development will eventually reduce CO₂ emissions in long run by 5%. Production processes in the mill also have by-product gases that UPM aims to reduce by 20%. Responsible water usage in the process is also pivotal to all the production to be more sustainable in future. The main actions are described in

chapter 5.1. (Goal 6) (UPM Sustainable paper production, n.d.) UPM has also signed the UN Global Compact CEO Water Mandate- initiative. The development in the initiative is directed toward improving effective water recycling technologies. (Annual Report, 2021.)

5.4 Social sustainability

The starting point to social sustainability starts with respect for basic human rights. The core value is that all people, regardless of oneself background are treated equally. The main targets are described in chapter 5.1 in the Goal 8 of SDGs.

From 2030 onwards everybody at UPM must have a personal development plan that includes personal growth in their career at UPM, continuous education, and thus engagement to UPM growing past benchmark. Secondly, the whole organization and every operation start with safety. The well-being of UPM's workers is a priority – an integral part of sustainability. Safety-related work is based on long-term commitment to planning, communication, and leading. (Annual Report, 2021.)

Mission Zero in Communication Papers is a target that aims to eradicate accidents with risk management and assessments, and safety observations. All starts with preventive measures. Safety rules are set in place to standardise the default actions toward safety. There are three health and safety rules: "1. Safety first, 2. Safety starts with me and 3. We can prevent all accidents". These rules are important when preventing and aiming for zero tolerance for fatal and serious accidents. (UPM Safety Rules, 2018.)

Code of conduct compliance is an active, all-encompassing, guideline that everybody at UPM follows. It ensures the management of risks (misconduct), supports employee decision making, and promotes a work-mindset, that aims to have a trustworthy and open workplace culture for the future. Code of conduct also promotes responsible actions that the employee has toward the company and vice versa what actions and responsibilities does the company have towards the

employee. This is the first major step to committing to social responsibility and sustainability matters. (UPM Compliance, n.d.)

UPM also carries a part in social responsibility through actions taken by people and society outside of the production processes. Engaging with the communities behind the resources creates value for local communities. “Biofore Share and Care” -program promotes donations, employee volunteering, and different fundraiser initiatives. These are just the small things that UPM does to attain and reach sustainability in a social perspective. (UPM Engaging with Communities, n.d.)

6 SUSTAINABILITY THEMED INTERVIEW

The qualitative case study was conducted through a series of semi-structured open-ended interviews, where a customer representative from each company's management or from the sustainability team was present – each of them being well-versed in sustainability issues, therefore the best source of information for the interview. Semi-structured as a term refers to an interview scenario where the interview format has few predetermined questions and while others are not planned. (Indeed, 2022.) For a themed interview, theoretical sampling (i.e., a selection of interviewees best suitable to be discussing the topic) was used by the participants. After each interview, the conversations were all partially transcribed for later analysis. Transcription means a process, where different recordings, such as sound clips, images, and videos are written down in text form. (Kananen, 2013, 97-99.)

The main purpose of the interview was to find out what themes and topics surrounding sustainability were of importance and provide the research topics for the next phase, a web-based survey. The purpose was also to highlight the importance of certain sustainability topics and how they affect the business area. The outline and the interview questions were all given a day or two beforehand to all the participants in the interview. Throughout the interview, there were additional clarifying questions asked, if needed. The questionnaire for the interviews (Appendix 2.) was created to steer the conversation in sustainability themes that are most noticeable through UPM's customers' eyes, thus reflecting the Nordic paper market changes as a whole. The aim is then in UPM internally evaluate if the targets that UPM has set are sufficient and whether there is something more to be done.

The interviewed customers are listed in table 3. To remain anonymous and compliant with the confidentiality agreement, they are presented by their customer segments. The actual names of the interviewees are presented with the finished thesis and provided to the case company. There are 13 companies attending the thesis research, with 1-3 customers by segment. The interviews were held either English or Finnish and they were digitally recorded by Teams. Each customer

was interviewed individually, and each interview took 30 – 60 minutes to complete.

TABLE 3. Interviewed customers

1.	Retailer 1
2.	Printer 1
3.	Printer 2
4.	Printer 3
5.	Publisher 1
6.	Publisher 2
7.	Publisher 3
8.	Merchant 1
9.	Merchant 2
10.	Merchant 3
11.	OSD 1
12.	OSD 2
13.	Converter 1

Interviews were a great source of perspective from the market, but there are some things to be considered: the interviewees and the situation that they are in might tell a subjective side. The interviewee/company representative might use similar concepts in a different or 'wrong' context during the interview and thus give a contorted version of the story. Therefore, it is important to research the subject with another research method, to pursue as close to the truth as possible. This thesis/ case study utilizes as the second method, a web-based survey. The research questions:

(1): What are the main sustainability themes of the future in UPM customer base in the Nordic area?

(2): What themes around sustainability in the paper business are rising in importance in the near future in the Nordic area?

are answered in this part of the research.

6.1 Results

The interview structure began with the question, of whether the company (interviewee) has a sustainability strategy. The answer determined the course of the interview and the next questions, based on whether the interviewed company had an officially determined strategy or not. Table 4. directly concludes the companies that have the strategy out of the 13 companies included in this thesis (table 3). The general part (Appendix 2.) was asked of all participants.

TABLE 4. The companies that have a sustainability strategy

Retailer1
Printer2
Printer3
Publisher1
Publisher2
Publisher3
Merchant2
Merchant3
OSD1
OSD2
Converter1

The first question: “Do you have a sustainability strategy?” provides insight into how well immersed the interviewed company is in sustainability issues. Figure 1 illustrates how many of the companies in the Nordic business area have an officially defined strategy for sustainability out of all interviewed customers (13). From figure 1, we can conclude that only 3 out of 13 does not have an official sustainability strategy.

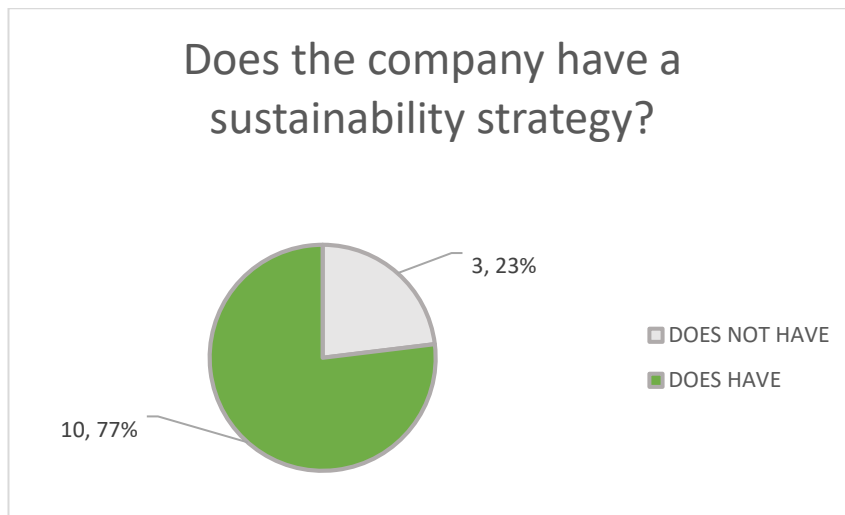


FIGURE 1. How many of the 13 companies have a sustainability strategy?

From the question, the takeaway is that sustainability aspects and their inclusion is a core value in the Nordic area and sustainability themes are taken into account in business metrics. The consensus on sustainability strategy across all interviewed customers is that there must at some point, be an official sustainability strategy and sustainability is seen as a compulsory part of value creation. Furthermore, those who do not have an official strategy (Figure 1) already aim towards producing one or are already researching and publishing one (Publisher2, Printer1, and Merchant1). The sustainability work and calculations for them, in the previously mentioned three companies, are for now internal-use only. The process towards official strategy and more sustainable practises, is continuous in all included companies.

According to all interviewees, sustainability themes are prevalent in daily actions or considered when choosing a business partner, or in this case paper manufacturer/supplier. Some of the customers, based on the nature of their business model (retailers and merchants) had only emissions in Scope 2 and Scope 3 (no production to the actor company). This has led to the consideration on partnering with a company based on those Scopes' emissions.

Customers base their emission calculations related to the paper products, on the manufacturer's information (in this case UPM). Dependent on whether the customer has additional processing or not, those emissions are added to the carbon

footprint /emission calculations of the customer's side. Manufacturers' information about the environmental load of the product is often, in the paper industry, presented together with Paper Profiles. This is also the case for UPM Communication Papers. The latest information available is the paper carbon footprint which is calculated based on annual machine line averages. In practice, this means that customers calculating their emissions in 2022 are using values based on the year 2021. This information delay was one of the talked points in what to improve on. The need for more up-to-date information and data, from the manufacturer, has been seen rising in importance. The need for data more often than yearly was a value that could create a competitive advantage in the future in the paper market.

The importance of carbon footprint calculations overall can be seen from the interviews, where (38%) 5 out of 13 interviewees mentioned the term. This highlights that carbon footprint is still considered to be a valuable source of information on an environmental load of paper products.

The next question for those that have a sustainability strategy, was to determine what the timeframe is for the strategic sustainability targets. All the targets are set to be reached before the year 2030. This target setting is most likely due to European Union having a 55% net emission reduction target by 2030. EU is also having long-term targets that aim to climate neutrality in 2050. The shift in the EU to a more environmentally friendly model enforces the state and private sectors to follow as well. (European Environmental Agency, n.d.) The companies must follow the EU regulations concerning climate efforts in addition to national regulations. Most long-term targets were set to be reached within that timeframe.

The next question concerns sustainability strategy and whether it is integrated into the business plan. All the interviewees that had the sustainability strategy had it integrated into the business plan or most of the parts of it (table 4). The question is crucial to understand the length and commitment to sustainability that each of the companies has. When the sustainability strategy is integrated into the sustainability forward-thinking, it is in the DNA of business metrics. The value for all parties (and stakeholders) is then created from all three points of sustainability dimensions (social, economic, and ecologic). (Global Sustainability Roadmap, n.d.) Integration also indicates that the company sees sustainability as a central

element to value-creation. Integrated sustainability strategy also means that sustainability has been considered when creating analysis on risks and opportunities and overall plans for the future.

For the next part of the thesis and discussion, figure 2 illustrates the themes that were talked about when questioning the interviewees about their sustainability strategy priorities. These attributes are the foundation of the next part, quantitative data, the survey. The key phrases mentioned more than by two companies are in the mind map (figure 2).

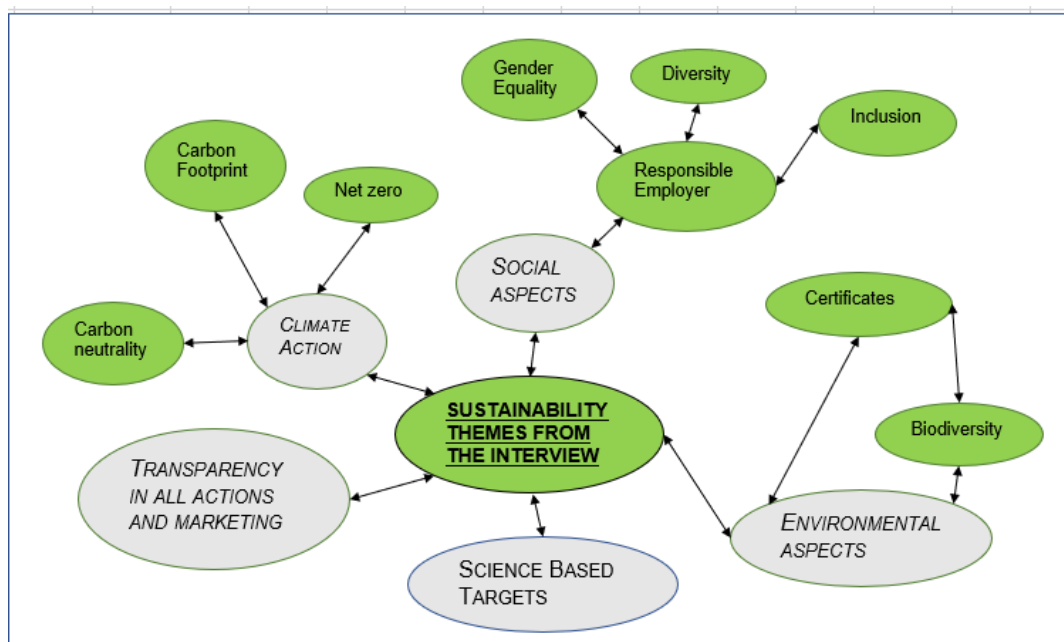


FIGURE 2. Themes that arose from the interview

The most talked about priorities were carbon footprint and -neutrality, biodiversity actions and responsibilities of an employer, and how to implement diversity and inclusion more to workplaces. From the environmental point of view, minimizing greenwashing and focusing on real concrete actions towards carbon neutrality for the processes and products was highlighted by several customers. Value creation for most interviewees starts with a sustainable and responsible supply chain. For a few Finnish customers (OSD1, Merchant1, Merchant2) the domesticity of the services and products was a value that they established as to be considered important. Domestic products are seen as a trustworthy and a great option for minimize the environmental load from logistical side and for cost reduction overall.

Most if not all, gave their trust in certificates related to the responsibility that are currently available for paper products. All indicated that these certificates provide the needed information about the origins of the raw materials (forest certificates) and that the production is conducted with the best available techniques (eco-labels). Not only that but all customers communicated that the positive reputation of UPM in the Nordics, is enough of a validation to most secondary customers that they consider the products to be manufactured with high standards across the supply chain.

The only downside to different certifications is that more than one customer voiced their experience to someone that does not work in the industry (some of their own customers), some of the certificates are not familiar, or the sheer number of them is too large. More of a universal certification system could be beneficial. Additionally, the certificates and their meanings could be emphasized more in the future as the products are marketed customers pointed out. This would certainly also help and raise awareness on certain certificates and their meaning.

The social aspects and social responsibilities seem to gain more importance and focus on the industry as the next big thing to tackle. The efforts in internal social sustainability were discussed as being the focus area for the next part of sustainability. Being a favourable employer is a business competitive advantage, that can be reached through internal sustainability actions. Change in values and consideration of social values is seen as more important by a younger generation of employees and those who just entering employment. The paradigm shift from the previous generations can be seen in the whole industry.

When talking about the Nordic business area and the engagement in sustainability, the targets and actions in environmental aspects are continuously improved and with the upmost resilience. Science based targets- initiative also was mentioned by two companies. The consensus from those customers (Printer3, Retailer1) is that the initiative seems to steer the development at the company level in the right direction, and the emission reduction based on the initiative is considered to be the best available tactic today.

The question about the priorities also included the follow-up question of whether the priorities are in direct comparison to UN SDG targets. The sustainability strategy priorities, from all but one, interviewee were derived from United Nations' Sustainable Development goals. The one that had not is Converter1. This further accentuates the importance of the United Nations influence over sustainability themes and how comprehensive the targets are for all industries. They can be molded to fit each actor differently and give insight into what to look and act on when determining the sustainability strategy.

The three that do not have an official sustainability strategy are Publisher2, Printer1, and Merchant1. The next question on priorities concerning sustainable development was asked of them that did not have a sustainability strategy. The discussed themes remained the same compared to those who had the official strategy. This further accentuates that the aspects that are seen as important in sustainability remain the same regardless of customer segment or the geographic position in the Nordics. There were no other indicators of difference, than having the responsibility to produce a sustainability strategy in near future.

Whether there is something to what as paper manufacturer UPM could do to better serve as a partner, the overwhelming conclusion was that the transparency of all actions is pivotal, in what UPM can make to maintain a good reputation in the industry. It seems that more of an open discussion on emissions and the responsibility of the supply chain is also seen important and to what UPM can contribute to. The meaning and value-creation of paper should be also more emphasized in the future as paper use is declining, stated Printer1.

7 SUSTAINABILITY SURVEY

The next part of the case study for Communication Papers (UPM) started off with the creation of the internet survey, a quantitative survey. Surveys are considered to be the most often used method of quantitative research. (Kananen, 2011, 12-17) Triangulation is reached through multiple research methods, and the second part of the thesis solidifies the fact. Multifaceted research methods also increase the reliability of the research. Quantitative research requires knowledge of the subject matter in hand and thus it is set in this thesis as the second research method.

The survey (Appendix 3.) was created with Microsoft Forms- template and it featured 14 questions. All the questions were either open or structured, meaning they had ready-answer options available. All the questions were not required to be answered. The *-marked questions were only obligatory. The survey was split into 5 categories of questions based on the theme:

1. Background
2. Rating sustainability topics and themes
3. Net-zero
4. Scope 3 emissions
5. Carbon neutral products

Some loss respondents were faced during the second phase of this thesis when the OSD1 did not answer the survey in the given timeframe. The response rate for the survey is 92%.

The first headline is related to the respondent's company. The respondents are the same as presented in table 3, leaving OSD1. The objective of the survey is to answer research question (3): "What are the sustainability aspects that are most prevalent in the market today in the Nordic area?". The objective to the survey was to find out the sentiment of the sample group on the specific current sustainability topics. The real names of the respondents are not published in the public version of the thesis. It was previously discussed with the case company representative, that for them it would be more useful to have each customer present the ideas by their name. This was also better suited for the intended use of

the research later. Now each category, with the findings is presented through its own headline.

7.1 Rating sustainability topics and themes

The first figure 3 illustrates the findings of the first structured question with ready-made answers that the customer could choose from. Question 2 was from which areas of sustainability performance the customer would like to hear more. The aspects (key phrases) are directly quoted from the findings of the first research method of qualitative data (interviews). Y-axis in this figure displays the number of times that the option was voted. Each respondent could vote on as many topics as they desired (multiple choice answers). There was also an open “other” option where the respondents could write their own sustainability aspect that they wanted to hear more about. No answers were given in the “other” category. The end result is that most voted sustainability aspects are product carbon footprint (9), supply chain responsibility (9), and biodiversity (8).

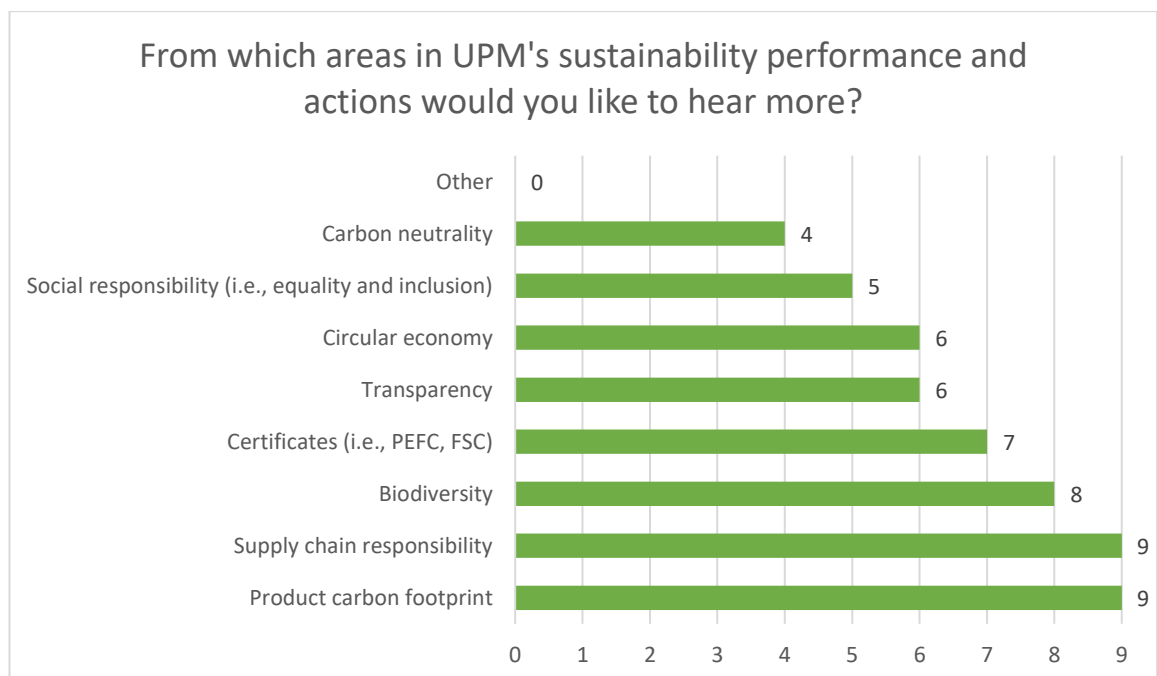


FIGURE 3. From which areas in UPM's sustainability performance and actions would you like to hear more?

Figure 4 defines the sustainability topics from most to least important from the customers' point of view and reflects the answers to question 3. Each customer could in the internet version of the survey drag the answers from 1-8, 1 being most important and 8 being least important. The most important values from the survey are product carbon footprint, supply chain responsibility, and social responsibility (i.e., equality and inclusion). The answers are a reflection of the previous question, and they highlight the same aspects as the most important information that must reach the customer base from the UPM's side of information sharing.

. For us as your supplier, please rate the performance in a specific sustainability topic from most important to least. (The options can be dragged or shifted from the arrows on the right to order)

1: most important

5: least important

[More Details](#)



FIGURE 4. For us as your supplier, please rate the performance in a specific sustainability topic from most important to least.

The next question (4) (Appendix 3.) was related to sustainability-related certificates. It was an open question (“Which sustainability-related certifications are of most importance to you?”), where the respondents could write the answer by themselves. Some examples were given in the headline e.g., FSC, PEFC, EU Ecolabel, Nordic Swan Ecolabel, etc. The examples are a reflection of UPM's own ecolabels and certificates. All customers mentioned some, or all given examples. No other options for labels or certifications were denounced. This solidifies that UPM is currently up to date with the selection of labels and certificates and that the current ones are sufficient and meet the demand of the business area. Some respondents highlighted that providing all certificates is currently not

a necessity. Only forest certifications, such as PEFC and FSC, are considered in the business area as a default.

7.2 Net-zero

The fifth question was related if the respondent company has a Net-zero target and if they had it what the target year is. The next two questions (5 and 6) were not obligated to be answered. Question 5 answers are illustrated in figure 5. Only two companies had a Net-zero target: OSD2 and Printer1. For OSD2 the net-zero target is set in 2030 and for Printer1 in 2025.

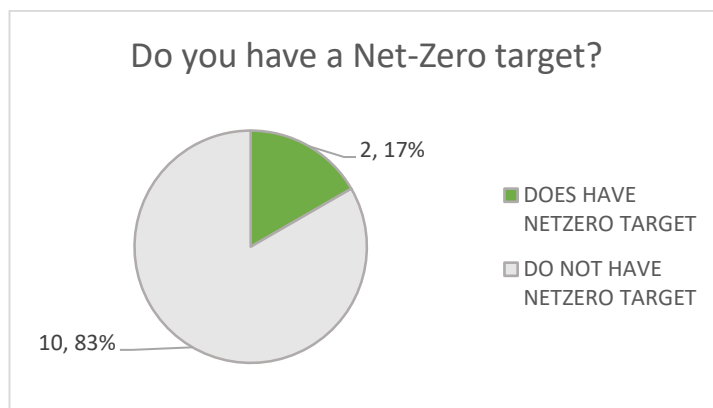


FIGURE 5. Do you have a Net-Zero target?

From the two companies that have the net-zero target, the next optional question asked about if the target has been approved by the SBTi (Science Based Targets -initiative). Out of the two that had an official net-zero target set, only OSD2 had the target setting approved by the SBTi (50%).

7.3 Scope 3 emissions

This category started with the question of the respondent company monitored their Scope 3 emissions. Figure 6 illustrates that half (50%) of the sample group is actively monitoring their scope 3 emissions.

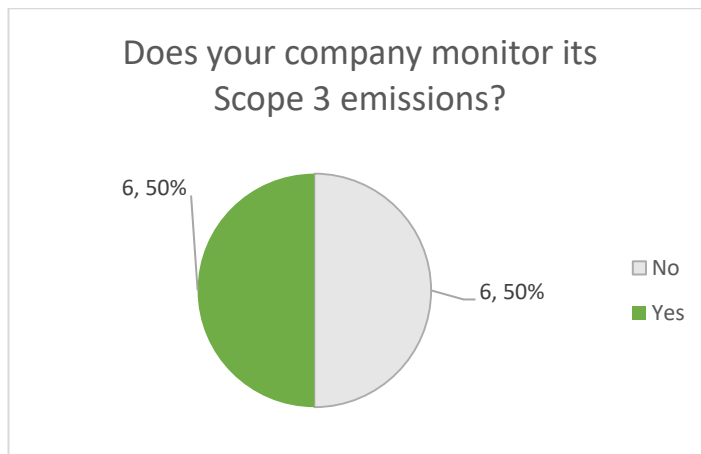


FIGURE 6. Does your company monitor its' Scope 3 emissions?

The next question (question 8) was related to Scope 3 target setting and whether the respondent company has an emission reduction target set and what year the target is set to be reached. Six respondents (50%) had a target set or are currently setting the targets in Scope 3 emission reduction. Printer3 is one that is currently setting the framework for external Scope 3 targets. The other 5 customers had the targets set. Publisher2 target is to reach a 30% reduction by the year 2030. Publisher1, on the other hand, has the same target year (2030), but the target has been defined with the detail that annual reduction must reach 4,2% and by the year 2030, a 38% reduction is reached against the 2021 baseline. Retailer1 defined their Scope 3 reduction targets with the intent of having 67% of suppliers by spend to have SBTi (Science-based targets) and lowering Scope 3 emissions from the use of sold products by the end of 2025. Lastly, the OSD2 is having a target to reach 2/3 (67%) of suppliers that are approved by the SBTi.

Question 9 concerns the main actions and tools that the respondents have to reach the climate targets in general. The question (Appendix 3) also featured some general examples, like technology improvements, energy efficiency, energy transformation, and demands towards suppliers. More than 50% (56%) of the respondents listed energy efficiency and transformation as the main tools to reach climate-positive outcomes. For Scope 1 and 2 emission reduction sustainable logistical solutions and optimization of logistics are the main actions taken to reach a climate goal. The conclusion is the pressure is still heavily dependent on the supplier side to reach climate targets and the responsibility lies in the production side as has produces the major percentage of the environmental load to the product itself. Climate calculations related to carbon footprint seem to be the

general way of calculating still the imprint and emissions that the products have. Sustainable material choices and efficient usage of materials are seen as important steps to reaching goals.

7.4 Carbon neutral products

Figure 7 provides the answer from all respondents to question 10 of how the respondent company views the price in relation to CO₂ footprint. The three answers provided are: “more value on price”, “equal value”, and “more value on CO₂”. All answers are either in “equal value” or in “more value on price”. This question provides insight into customers’ points of view, whether more value is given to the price or the environmental impact of the products. The results show that half of the customers prioritize the price of the product when making a purchase decision. Half of the respondents stated that they consider the carbon footprint but the decision of the suppliers is still heavily dependent on price of the product.

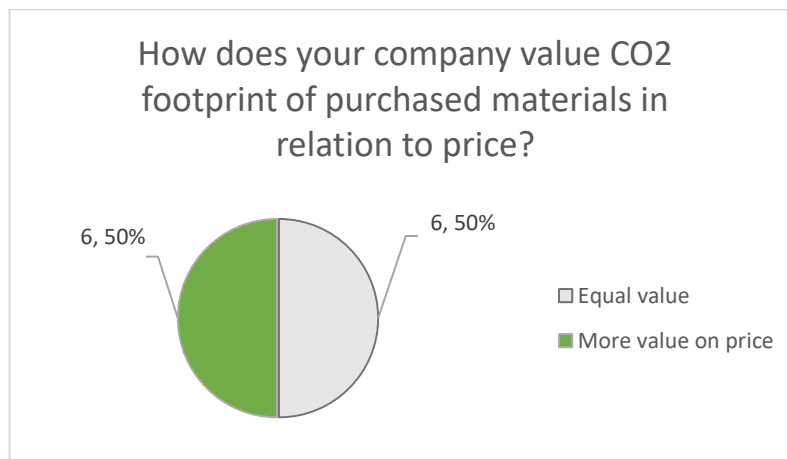


FIGURE 7. How does your company value CO₂ footprint of purchased materials in relation to price?

Question 11 is a follow-up question to the previous question. The question is about if the customers would be willing to pay a surcharge for CO₂ neutral products and services. There were only “yes” and “no” options available. From figure 8, we can conclude that 58% of the respondents seem to favour the “no”-answer.

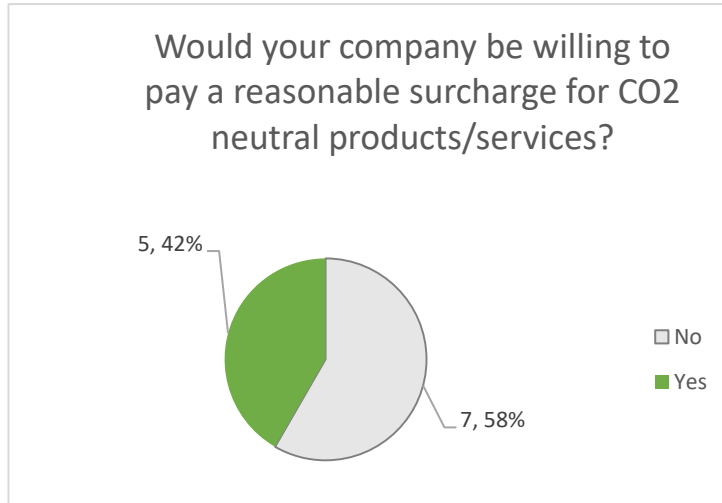


FIGURE 8. Would your company be willing to pay a reasonable surcharge for CO₂ neutral products/services?

The next question, 12, is related to emission offsetting and how the respondent company views emission offsets in general (figure 9). There were three options available as answers: “positive”, “neutral”, and “negative”. There were only answers in neutral 8 (67%) and in positive 4 (33%).

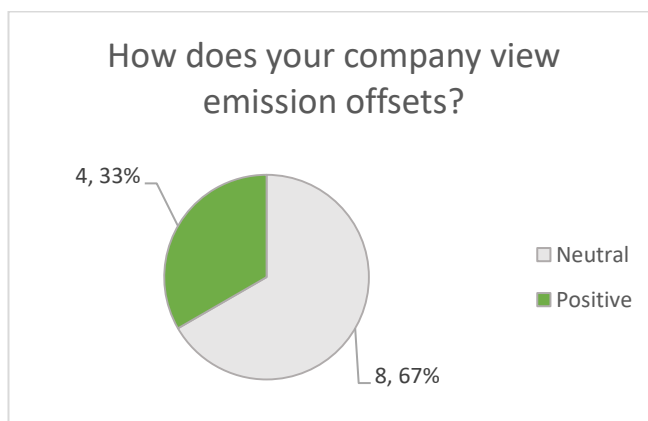


FIGURE 9. How does your company view emission offsets?

Figure 10 asked the respondents if they are doing carbon offsetting on their own. The answers were predominantly “no” with 75%. Three respondents (out of 12) answered “yes” (25%) that they do carbon offsetting.

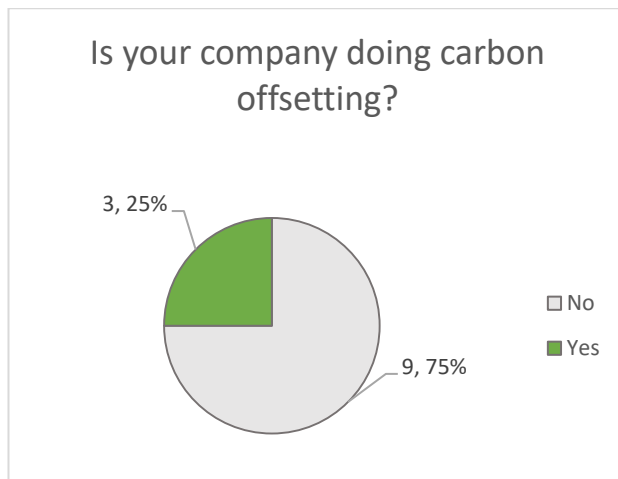


FIGURE 10. Is your company doing carbon offsetting?

The last question (Appendix 3) was about the respondent's perspective on carbon-compensated products. The question was not structured and open for discussion, the only requirement was to explain if the notion of carbon-compensated products is negative or positive. The matter dealt with is currently in discourse in UPM, due to the renewal of the UPM Communication Paper's portfolio in 2021, with the new carbon compensated paper. Half of the respondents answered that the overall look on carbon offsetting and compensated products is all in all positive (50%). It was seen as a sales argument and a market demand by some in the future.

Others thought that compensation due to a lack of resources and valid ways to certify the offsetting actions is seen possibly as "greenwashing". Some participants strongly expressed their views about compensation; however, it is not clear if the subject was considered greenwashing or as an issue, in which they are not interested in taking part. Nevertheless, transparency of offsetting needs to be the first step to minimizing the risk of greenwashing. Printer3 also expressed their concerns regarding real emission reduction if offsetting rises in importance. They see the central to all emission reduction still in a traditional sense in e.g., biodiversity support. The same assumption can be sensed from the Publisher1, where the response is inferring that emission reductions are the preferred option to carbon offsetting.

8 CONCLUSIONS AND DISCUSSION

Sustainability and the themes surrounding in the paper market today are seen as more important than ever before. Sustainability is not only seen as a market advantage but as a necessity. In deciding with who to partner in business, sustainability metrics are observed. Nordic countries and companies seem to regard sustainability targets and meeting them, to the highest standard. The Nordics as previously mentioned has been progressive and ambitious in their sustainability target setting. Sustainability is seen as the cornerstone to development in all factors in life and ensuring the same opportunities for the next generations. The same high expectations are regarded to the private sector and companies to uphold. The same values are then created through legislation to steer all industries including the paper industry to reinforce sustainability through all processes.

More pressure on environmental aspects is put from the societal standpoint on companies. Risen expectations are directed more to the companies' side, to create value for the economy, people, and state welfare. Sustainability is a central part of today's business thinking while considering all three sustainability dimensions: social, ecologic, and economic sustainability. Stakeholder expectations come across to be the biggest driver in sustainability change in paper market. Megatrends reinforce the significance of sustainably produced products, being the factor in paper market changes. (Annual Report, 2021.)

UPM Communication Papers is operating in a field that demonstrates actions that contribute to different laws and regulations. To be an active participator, in such an actively changing industry, the development must be concurrent with the changes overall in the regulatory framework. The industry also follows a wide scope of environmental regulations that are related to emissions, water quality, energy efficiency, and waste disposal and recycling. Even though the processes have been optimized for a long time before the sustainability movement primarily for cost reduction in mind, the sustainability progression must be ongoing. There is always room for improvement and efforts to mitigate environmental load and halting climate change. These all affect the operative field and how UPM can serve its customers in the long run. (Annual Report, 2021.)

Continuous discussions are the main contributor to reciprocal partnering in business and customer satisfaction. Knowledge of the market demand and the specifications of the end-use applications is also pivotal when establishing customer relations. The same main sustainability themes (i.e., product safety, responsible forestry, and recyclability) have been seen important from the customers point of view and those aspects of sustainability in the Nordics can be seen from this research also. However, targeted research is timely and necessary due to organizational change and for new personnel orientation for the Sales team in the future. This thesis can be one of the central materials for acquiring background knowledge on Nordic customers and their sustainability requirements for their paper suppliers.

Open communication and information reach can be attained through transparent marketing and the expression of results in Annual reports and other stakeholder newsletters. The research highlights that transparency in sustainability is the founding point to all actions and when accompanied with proves validity to customers. The conclusion from the interview and the survey is that UPM has a good reputation amongst the customers and most if not all were satisfied with the transparency of the sustainability performance result sharing. The good reputation must then be upheld with the same transparency and attention to detail as previously.

From both interviews and survey, the conclusion is that customer segments (the end-use areas of the paper) are not the primary influencer in the target setting to sustainability nor the size of the company. Factors related to goal determination seem to be more related to whether 1. the customer has their own production, or do they measure their scope 3 emissions, or 2. what kind of pressure, for example, the EU has on product legislation, or the secondary customers have towards their suppliers (UPM's customers). The interview phase and survey data also indicate that the pressure and demand for sustainability actions and measurement are still overwhelmingly towards suppliers in the Nordic region.

Carbon neutrality or carbon-neutral products, as a term came up from several customers (Publisher1, Publisher2, Publisher3, Merchant2, Merchant3, Printer3, Retailer1, OSD1, and OSD2). This is indicative of the change towards net zero

dominant market status and the shift is compliant with the consensus that carbon emissions must be mitigated towards 0 for all industries and companies. The pressure in the paper industry is steered towards production and paper raw materials (manufacturer).

Carbon offsetting as discussed in chapter 7.4 is seen as a controversial topic amongst customers. Some seem to be guarded about offsetting as they see it as a more negative than a positive change in the emission reduction scene. Neutral climate impact is currently reached through compensating emissions (offsetting), but the distrust for the offsetting schemes and the lack of standardised tools is leading the paper industry away from offsetting and towards emission reductions that are SBTi approved. Compensation, and the reputation it has, currently are moulded and very dependent of opinion of the company responsible. Those who are very well acquainted with their impact on the environment through emission calculations and have the knowledge on compensating, are very aware that without carbon compensations current technology does not enable net zero targets. Overall these statements from the research taken into account, it explains the low rate of carbon offsetting in the region (25%), only 3 respondents from the sample group (figure 10).

In 2022 the EU Commission proposed universal carbon removal certificate that would provide credibility for carbon removal credits. Certification would provide the framework for the whole EU to achieve climate neutrality. Subsequently, the development would stream down to the private sector (companies). In addition, the certification would help with the mitigation of greenwashing, support the Net-zero targets of companies, and steer the finance towards technological innovations (the focus on carbon removals). Nevertheless, voluntary carbon market might have a development to be more stabilized, thus a more positive reputation might be acquired from the public eye. This could also change the status and importance of carbon offsetting in the paper industry. (European Commission, n.d.)

Questions 7 to 8 were related to scope 3 emissions and their possible monitoring. From figure 6 the conclusion is that 50% (6 respondents) answered that they monitor their scope 3 emissions, which is a lower number than expected. The lack of Scope 3 knowledge is somewhat a 'surprise' as Nordic customers are

generally perceived as progressive customers in terms of sustainability. However, this can be understood as the regulation doesn't require small companies to monitor or report their climate impacts yet, which might explain some of the discrepancies. Results may indicate that Scope 3 inventory is a very labour-intensive exercise, especially for smaller customers, might be too laborious to uphold or the customer might lack the know-how to do such assessments. However, the EU regulation is extending to small- and medium-sized companies on the reporting requirements and thus the monitoring of Scope 3 emissions are to be expected to increase in the Nordics and elsewhere in the EU.

A bit surprising small discrepancy can be noted from the answers if the assumption is that the customer company who monitors the Scope 3 emissions, would be more interested about the carbon neutral paper. Judging by the results this is not the case. Those customers that do view their emission share based on the three Scopes (1,2 and 3), might see the carbon neutral products to be important. In more detail, those whose Scope 3 emissions have a small impact overall, have no urgency with the emission reductions in the upstream supply chain. On the other hand, for those customers, whose Scope 3 emissions comprise a large share of their overall emissions, for example, customers that have no own direct processing, might be more inclined to acquire products with low to neutral product footprints.

Question 8 gives insight into what the scope 3 targets are for those 6 respondents that answered yes for monitoring scope 3 emissions. The responses show that scope 3, for those to whom it may relate to, is based on supplier emission reductions. The importance is to verify the emission reductions by an external actor and in this case the assumption is SBTi. If the emission reduction targets are validated through an external actor, it demonstrates that the emissions reductions are measurable, based on realistic calculations and predictions, have a clear timeframe and are based on science.

Certificates, as a theme appealed to be very important in the interview phase, and therefore question 4 (survey / Appendix 3) was created to further investigate whether there is a need for other certificates or labels to be added to the portfolio.

The results demonstrate UPM is up to date with the selection of labels and certificates, the most often asked certificates still being PEFC and FSC (forest-related certificates). The varying results also indicate that the UPM customer base has no specific preferences for certificates and hence most if not all, are satisfied with the selection of labels and certificates at UPM. As of today, all customers must still specifically request certain labels or certificates.

The follow-up question (question 11) about the surcharge highlights that from the respondent's side, the recent paper market changes and the raised prices steer the consensus towards a more favoured "no price increase" from an additional surcharge for carbon neutral products. Nordic customers seem to be waiting and assume that the emissions and carbon footprint as a whole are reduced over time, hence the need for a separate surcharge for that purpose is not needed. The circumstances of the current price variation change are associated with new legislation, raw-material costs, disturbances of global supply chains and energy price increases, and the worsened political situation in the European region.

The responses may also reflect the overall brand / image that UPM is portraying about itself and the sustainability movement for the whole company. With the positive image on sustainability target reach and as a large market actor, UPM, is creating additional security in customers that the results will also benefit the customers in the long run. To conclude, if the economic situation in the market changes or customer companies are experiencing more pressure from consumer and regulatory side, it would surely influence the demand for different responsibility topics, especially those of environmental nature. The possible change would then be the catalyst for a more critical topic of interest in sustainability themes.

8.1 Reliability of the thesis

In scientific research often reliability metrics rely on reliability and validity. Reliability is the conclusion that the research outcome constant and validity mean that the research deals with the right angle and subject matter. Both terms are considered when talking about qualitative and quantitative research methods. They

are just taken differently into account based on the research method. (Kananen, 2014, 147-148.)

This thesis is created through an attentive selection of source materials. The difficulty arose during the construction, from the sheer amount of background materials and thus the scope was determined quite early on with help of a school representative and thesis supervisor. The theory is constructed to be inclusive and relevant to the thesis and to give insight into how research questions are implemented currently in practise in UPM Communication Papers and to highlight the selection of subject and customers. The theory is also necessary if the thesis will be used as orientation material for new employees in the future.

The interviews and the web-based survey both were performed with success. With the two methods the timeframe set in the first half of the project was successfully reached. The cooperation with the different teams (Sales Nordic and Sustainability) worked very well and the open discussion remained for the entirety of the project. The results have been beneficial to the case company (UPM Communication Papers) even during the research phase. The discussion part of the thesis highlights the discussed themes accurately and the conclusions demonstrate the results in sustainability to be important from multiple perspectives in Nordic countries. To summarize, the results strengthen the conclusions made earlier by the company about the sustainability aspects and their relevancy in the Nordic business area. All these factors indicate that overall, the project and thesis are a success and the case that this thesis represents is valid in its findings.

The only potentially impairing factor to the accuracy of the results is the loss of respondents from the survey (one customer did not answer). This development was an external factor and nothing more could be done to improve the situation. The customers (respondents) were reminded 3 times during the course of the research, to respond to the survey. Another factor to be considered is the sample group size. The sample group represents a quite small percentage of the business area, but due to time constraint a larger sample group would not be possible. The findings also illustrate that this selection of customers and their answers give wide enough inspection to the sustainability requirements of the business area and therefore thesis maintains validity.

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APPENDICES

Appendix 1. United Nations Sustainable Development Goals (United Nations, SDGS, n.d.)

1. No poverty
2. Zero Hunger
3. Good Health and Well-Being
4. Quality Education
5. Gender Equality
6. Clean water and Sanitation
7. Affordable and Clean Energy
8. Decent Work and Economic Growth
9. Industry, Innovation and Infrastructure
10.Reduced Inequalities
11.Sustainable Cities and Communities
12.Responsible Consumption and Production
13.Climate Action
14.Life Below Water
15.Life On Land
16.Peace, Justice and Strong Institutions
17.Partnership For the Goals

INTERVIEW QUESTIONS

Thesis survey

1. Do you have a sustainability strategy?

IF YOU HAVE:

2. What is the timeframe for it?
3. Is it integrated into the business plan/strategy?
4. What are the priorities in your business in sustainability? Are they linked to UN Sustainability Development Goals and/or are you committed to improve your own sustainability according to any SDGs (Sustainability Development Goals)?

IF YOU HAVE NOT:

- a) If you don't have the strategy, do you have any priorities concerning the sustainable development or any themes that you are actively working on/towards?
 - i. Meaning for example: energy efficiency, responsible and sustainable supply chain, social responsibility
- Have you experienced any pressure to act on certain sustainability themes?
 - i. What are those?

GENERAL:

- I. What are the priority aspects on sustainability that are prevalent in the future?
 - a. Are they somewhat different than current ones/ any differences?
 - b. Are there any that seem to gain importance in the future?
- II. What themes/performance/advancements do you wish from your paper manufacturer in the future?

Continues...

2(2)

Suomeksi:

Onko teillä vastuullisuus strategiaa?

JOS ON:

Mikä sen aikajänne on?

Onko se integroitu liiketoimintastrategiaan?

Mitkä ovat strategiset prioriteetit?

a. Ovatko ne liitetty YK Vastuullisen kehityksen 17 tavoitteeseen?

JOS EI OLE:

Jos vastuullisuusstrategiaa ei ole määritetty, niin onko toiminnassanne priorisoitu jotain vastuullisuuden osa-alueita?

Onko jotain tiettyjä vastuullisuuden teemoja, joiden kanssa työskentelette?

- esim. päästöt, energiatehokkuus, vastuullinen hankinta, sosiaalinen vastuu jne.

Mihin vastuullisuuden teemoihin koette eniten painetta?

a. Mitä ne ovat?

YLEISET KYSYMYKSET:

Minkälaisia vastuullisuuden teemoja näette tulevaisuudessa?

a. Eroavatko ne nykyisistä vastuullisuusprioriteeteistä?

b. Millä teemoilla on enemmän painetta tulevaisuudessa?

Mitä teemoja/suoriotumista/edistystä te, asiakkaana, odotatte paperintuottajiltanne tulevaisuudessa?

Appendix 3. Survey base

1(3)

Sustainability survey_UPM

The survey will take approximately 10 minutes to complete.

Multiple questions are not obligatory to answer. Only those that have the *- symbol are required.

This survey will help us understand how sustainability thinking is affecting the paper market/industry expectations. The survey is part of UPM's bigger research on sustainability. This survey was created by Thesis worker, Anni Ritamäki, as a part of the research for UPM Communication Papers.

Thank you for participating in the survey!

Section 1

...

Background

*names are not published anywhere

1. Please provide your company name. *

Enter your answer

2(3)

Rating sustainability topics and themes

2. From which areas in UPM's sustainability performance and actions would you like to hear more? *

- Product carbon footprint
- Supply chain responsibility
- Social responsibility (i.e., equality and inclusion)
- Transparency
- Biodiversity
- Carbon neutrality
- Certificates (i.e., PEFC, FSC)
- Circular economy
- Other

Continues...

3(3)

3. For us as your supplier, please rate the performance in a specific sustainability topic from most important to least. (The options can be dragged or shifted from the arrows on the right to order)

1: most important

5: least important *

Product carbon footprint

Supply chain responsibility

Social responsibility (i.e., equality and inclusion)

Transparency

Biodiversity

Carbon neutrality

Certificates (i.e., PEFC, FSC)

Circular economy

4(3)

4. Which sustainability-related certifications are of most importance to you? (e.g., FSC, PEFC, EU Ecolabel, Nordic Swan Ecolabel, etc) *

Enter your answer

Section 3

Net-Zero

5. Do you have a Net-Zero target? If **Yes**, what is the target year?

The value must be a number

Continues...

5(3)

6. Has your Net-Zero target been approved by the SBTi?

Yes

No

Section 4

...

Scope 3 emissions

7. Does your company monitor its Scope 3 emissions? *

Yes

No

6(3)

8. Do you have a Scope 3 target? If **Yes**, what is the target and the year?

Enter your answer

9. What are your main actions/tools to reach your climate targets?
(e.g., technology improvements, energy efficiency, energy transformation, demands towards suppliers)

Enter your answer

Continues...

7(3)

Carbon neutral products

10. How does your company value CO2 footprint of purchased materials in relation to price? *

- More value on price
- Equal value
- More value on CO2

11. Would your company be willing to pay a reasonable surcharge for CO2 neutral products/services? *

- Yes
- No

8(3)

12. How does your company view emission offsets? *

- Positive
- Neutral
- Negative

13. Is your company doing carbon offsetting? *

- Yes
- No

14. How is your company's perspective on carbon compensated products?
Positive or Negative, please explain. *

Enter your answer