

Transparency of Material Origins in the Furniture Industry

A cooperation Project with Tapio Anttila Collection Oy

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Abstract

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Abstract		
<p>The thesis entitled "Transparency of Material Origins in the Furniture Industry", in collaboration with Tapio Anttila Collection Oy (TAC), investigates how to effectively communicate sustainability information to consumers via an online shop. This work is motivated by new sustainability reporting guidelines, in particular the Corporate Sustainability Reporting Directive (CSRD) and the forthcoming Product Passport Directive (DPP).</p> <p>The study examines whether sustainability influences purchasing decisions in today's market and how it can be defined and transparently presented on a website. A comprehensive analysis was carried out comparing TAC's practices with those of similar companies, including a survey of TAC's manufacturers to gather detailed information on material sourcing.</p> <p>Advanced tools such as eye-tracking and audience targeting were suggested to improve the user experience on TAC's website. The development of a digital product passport was identified as a crucial step to comply with upcoming regulations and improve transparency.</p> <p>Key findings revealed that most companies provide vague information on material origin, highlighting the need for clear and detailed transparency to build consumer trust. The research resulted in a website concept for TAC that demonstrates how sustainability information can be presented in a visual and informative way that puts the customer at the center of the communication strategy. Prioritizing transparency and improving the user experience, TAC can effectively differentiate itself in the marketplace and contribute to a more sustainable future.</p>		

Keywords

Sustainability, Transparency, Material Origins, Website Communication, User Experience, Furniture Industry

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List of abbreviations

CO ₂	Carbon dioxide
CSRD	Cooperate Sustainability Reporting Directive
CSR	Cooperate Social Responsibility
CTA	Call-To-Action
DPP	Digital Product Passport
EF-RAG	European Financial Reporting Advisory Group
EGD	European Green Deal
ESG	Environment, Social and Governance
ESRS	European Sustainability Reporting Standards
EU	European Union
GIF	Graphics Interchange Format
i.e.	id est, in other words
NFC	Near Field Communication
NFRD	Non-Financial Reporting Directive
QR	Quick Response
RFID	Radio Frequency Identification (form of wireless communication via tags)
SME	Small and Medium Enterprise
TAC	Tapio Anttila Collection Oy
UX	User Experience

1 Introduction

99% of what we buy is thrown away within six months, leading to more than 2 billion tons of waste every year. That is enough to fill 207 million garbage trucks. (Circularise, 2023.)

To overcome this problem, we need to move towards a circular economy. However, there are major challenges in doing so, perhaps none greater than the gaps in data availability and transparency in supply chains. For sustainable products, it is crucial to know what materials are used, where they come from and how they can best be reused to maximise their lifecycle. An important solution are new European directives including the cooperate sustainability reporting directive and the product passport. These require companies to produce an annual sustainability report and make the supply chain of their products publicly available.

In addition to the sustainable movement in politics, a trend movement is developing on the part of buyers, which is making sustainability an important purchasing criterion and ensuring that customers want to find out about the origin of the materials.

The Finnish furniture design company Tapio Anttila Collection is expecting the annual turnover to surpass 2 million € within the next two years, which means that the cooperative sustainability reporting directive is expected to be mandatory from 2026. By requesting information about material origins from their manufacturers and communicate the information on their website to customers and suppliers they set a starting trigger. TAC wants to report more on its sustainable material origins and prepare for the upcoming directives. As a forerunner the company wants to give their customers more transparency even if it is not obligatory yet. This shows that sustainability is a matter of TAC's heart and part of the companies' deeper values.

This bachelor's thesis not only deals with the sustainability guidelines themselves, but also with how their content focussing on material origins can be communicated transparently to customers. And how this can ultimately be presented visually and informatively on the website. It is divided into two main parts, the theoretical and the practical part. The theoretical part deals with general information about sustainability, European sustainability guidelines and website communication. The main focus here is on user experience and purchase decision factors. Theoretical knowledge optimally prepares the reader for the practical part. This involves finding out what is typically shared by other comparable companies and then finding a way to put this into practice.

The result of the bachelor's thesis in collaboration with TAC is also a concept for enquiring about the origin of materials from manufacturers and a second concept for how this information about the supply chain can then be successfully communicated on their website.

2 Tapio Anttila Collection Oy



Image 1. Logo Tapio Anttila Collection Oy (Anttila 2023a)

Tapio Anttila Collection Oy, based in Lahti, Finland, is a Finnish company founded by Tapio Anttila (Image 2 on the right), a renowned furniture designer, and his wife Arja Anttila (Image 2 on the left). With only four people working in the company, it is a small but dynamic enterprise. TAC consists of the two founders and majority shareholders, Tapio Anttila and Arja Anttila, along with two employees. Tapio serves as the designer and chairperson of the company, while his wife Arja Anttila takes on the role of managing director. Each furniture piece is personally designed by Tapio Anttila himself. The Logo of the brand can be found in Image 1. (Anttila, 2023a.)



Image 2. Arija Anttila & Tapio Anttila in the snow (Anttila 2023a)

Tapio Anttila Collection Oy's furniture is characterized by Finnish design and functionality, particularly evident in its sofas, seamlessly transforming into sofa beds. A notable aspect of the company is its strong connection to nature and sustainability, reflecting Tapio Anttila's deep reverence for Finland's pristine landscapes. Image 2 is part of the About us on the TAC website. It shows Tapio and Arja's closeness to Finnish nature, which is also reflected in the furniture.

Over the years, Tapio Anttila has garnered numerous accolades as a Designer, including multiple Good Design Awards for his products and designs and the prestigious Kaj Frank Design Prize which honours Finnish designers. One of his most notable achievements is

the the Day&Night sofa bed receiving the Interior Innovation Award. In 2023, the company achieved a turnover of approximately 1.5 million Euros, growing approximately 63% from 2022, highlighting its growing success. (Niiranen, 2024.)

Initially focused on designing and marketing furniture in cooperation with furniture manufacturers, the company's sales were predominantly in the B2B landscape, targeting retailers and project customers. In 2021, the company underwent a significant transformation with the establishment of Tapio Anttila Collection Oy and the adoption of a new business model. This shift facilitated direct B2C sales through its own online store and assumed full responsibility for B2B sales. Simultaneously, collaborations with retail customers intensified, leading to further expansion. However, it is worth noting that the company is not currently categorised as an SME as its turnover is still below 2 million and it therefore remains a micro-enterprise under EU standards. (Niiranen, 2024.)

Currently, Tapio Anttila Collection Oy focuses on the Finnish market while preparing for expansion into the European market. Recent milestones, such as the Day&Night sofa bed becoming the best-selling product outside Finland in Finnish Design Shop's selection, underscore the company's international appeal. As Tapio Anttila Collection Oy looks to the future, it remains committed to its values of authenticity, responsibility such as timelessness instead of following trends. Designing functional, versatile and insightful products for ordinary people that solve every day interior challenges. (Anttila, 2023b.)

The target-group

The company's target audience currently includes not only Finland but also other Nordic countries, reflecting its aspirations for continued growth and influence in the region. It is not possible to create an exact persona as the brand's target group is very broad and cannot really be categorised into age groups or gender. People of all ages, genders and relationship statuses buy TAC products. The target group can be defined more by attitude and identity. Customers identify with the designer and the products based on shared values with the brand. (Niiranen, 2024.)

3 Sustainability

Traditionally, sustainability is defined as a considerate way of using the earth's resources. However, if the term is defined in a business-oriented context, it can be explained using the ESG model regarding Figure 1. ESG stands for the three main objectives environment, social and governance which a company should pursue equally. Sustainability is therefore not only related to the environment, but to the entire company. (Buchenau et al. 2016, 211-212.)

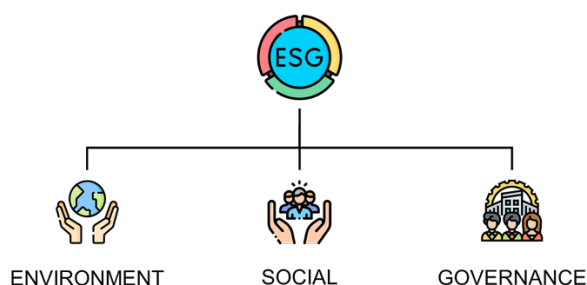


Figure 1. ESG model (Saci 2023)

Environmental sustainability includes aspects such as high energy efficiency, the use of renewable energy or the reduction of CO₂ emissions. The aim of economic sustainability is to secure the company's continued existence in the long term and to maintain or increase its competitiveness. Social sustainability is largely concerned with the company's own employees and partly its customers and suppliers. This relates, for example, to the corporate culture, occupational health and safety, as well as further training opportunities and work-life balance. The social component also includes things like sponsoring or social projects. (Buchenau et al. 2016, 211-212.)

3.1 EU corporate sustainability reporting

The European Green Deal

To mitigate the effects of climate change and the challenges it brings, the European Union has drawn up a plan, the European Green Deal. This plan aims to make Europe the first climate-neutral continent by 2050. The European economy is to be modernized, resource-efficient and competitive at the same time.

- No net emissions of greenhouse gases by 2050,
- Economic growth decoupled from resource use,
- No person and no place left behind (European Commission, 2021.)

All EU policy areas, such as research, mobility, energy, biodiversity, trade and foreign policy, are to be geared towards meeting climate protection targets through measures and guidelines. (Hüttmann, 2021.)

The ESG criteria form an important part of the European Green Deal. These are standards relating corporate governance in the areas of environment, social and government. Each of these three areas contains its own requirements and guidelines. The Non-Financial Reporting Directive (NFRD) previously in force in the EU was replaced by a new directive in January 2023 - the Corporate Sustainability Reporting Directive (CSRD) as can be seen in Figure 2.

Corporate sustainability reporting directive (CSRD)

More precisely, the CSRD is a European Union directive on corporate sustainability reporting which obliges companies to clearly defined standards: the European Sustainability Reporting Standards (ESRS). These guidelines aim to promote more sustainable business practices by requiring companies to report on their environmental and social footprints in a transparent and publicly accessible manner. Concisely, CSRD determines WHO, WHAT and WHEN must be reported, while HOW it must be reported is determined by the ESRS. (Plan A, 2023.)

Clearly defined criteria and key figures make data and facts comprehensible and comparable. This ensures greater transparency and makes sustainability reports assessable. It becomes clear how a company's actions affect people, the environment, and the climate, as well as what impact these aspects have on the company. Among other things, companies must show how they are gradually reducing CO2 emissions, shaping the transition to a circular economy and contributing to the restoration of biodiversity and ecosystems, while at the same time ensuring equal opportunities and respect for human rights. Even more important than the report itself is the change of direction that is brought about within the company. Recognizing sustainability-related risks and opportunities helps companies, for example, with risk management, developing new business models or attracting new customers and employees, as well as investors and business partners. Additionally, the CSRD is intended to ensure that stakeholders are better informed and can fulfil their own reporting requirements or invest in demonstrably sustainable companies. (European Union, 2023.)

Compared to the NFRD, the CSRD considerably expands the group of companies subject to reporting requirements. The requirements are adapted to different company sizes. As soon as companies exceed two of the following three characteristics, they are considered

as large companies. Consequently, they already have a reporting obligation for the year 2024 (see Figure 2). (Plan A, 2023.)

- More than 250 employees (annual average)
- Balance sheet total of over €20 million
- A turnover of over €40 million (Plan A, 2023.)

Non-capital market orientated SMEs are not directly obliged to implement the CSRD directive. Some SMEs are confronted with indirect requirements, such as suppliers of large companies regarding their supply chain. The implementation of the CSRD takes place step by step over time what is shown detailed using Figure 2. (Plan A, 2023.)

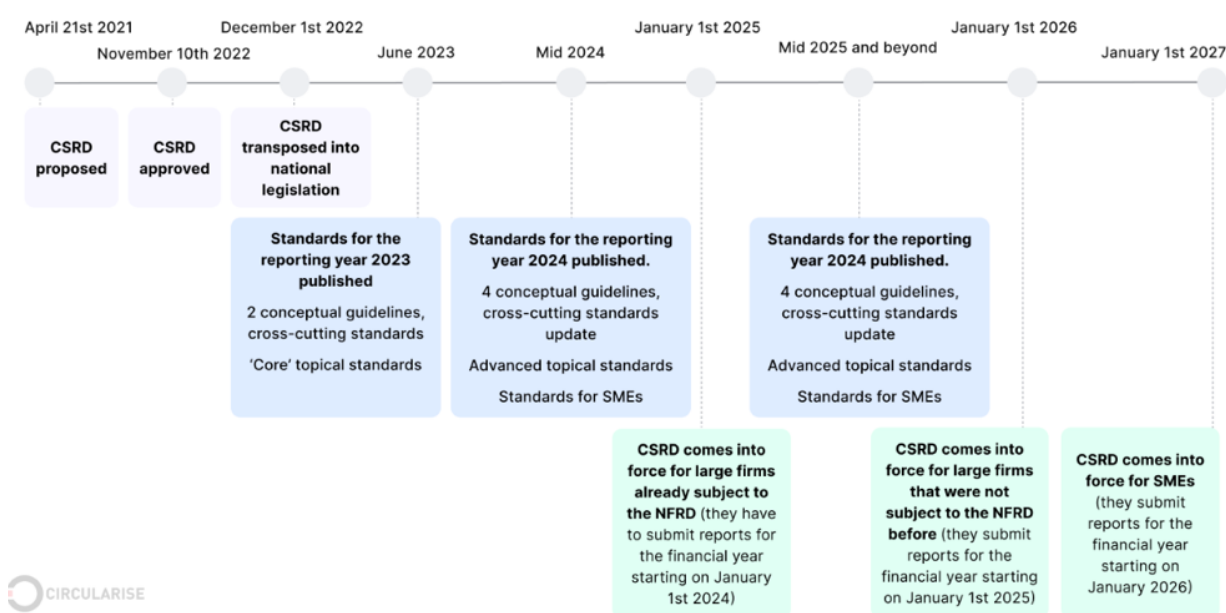


Figure 2. CSRD timeline (Stretton 2024)

The directive stipulates that the new regulations will apply across Europe for companies previously subject to reporting requirements from 2025 for the financial year 2024. For all other large companies, the CSRD will apply one year later. Capital market-oriented SMEs will be affected by the directive from the 2026 financial year at the earliest. (European Union, 2023.)

ESRS-Standards

The ESRS standards were defined by the European Financial Reporting Advisory Group (EF-RAG). The ESRS provides a framework for businesses and is currently built out of two parts - the cross-cutting standards and the topical standards (see Figure 3). The third part the sector-specific standards is going to be developed until 2026. (European Union, 2023.)

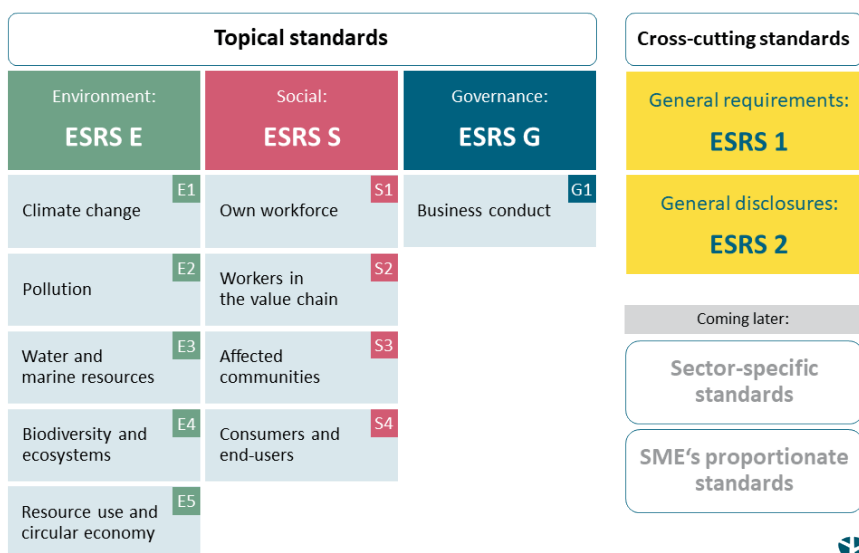


Figure 3. ESRS overview (Marijke-Janzen 2023)

The cross-cutting standards are separated in ESRS 1 and ESRS2 as can be seen in figure 3 on the right side in yellow. The ESRS 1 contains general requirements and formal rules for a company's sustainability reporting, defines application rules for the standards, the structure of the reports and reporting principles. It also includes requirements for materiality analysis and the principle of dual materiality, the involvement of stakeholders in determining material topics, explanations on linking corporate due diligence obligations with reporting requirements and principles for reporting on supply and value chains. Certain indicators or data points can also be omitted for material topics if they would generate immaterial information in individual cases. The requirements of the reporting standard are mandatory for all companies within the scope of the CSRD. The ESRS 2 expands on this by detailing generally applicable disclosure requirements and addresses three key areas according to the European Union (2023):

- **Governance:** Presentation of how sustainability is integrated into the corporate management system.
- **Strategy:** Clarifying the role that sustainability plays in the company's long-term planning and decision-making processes.
- **Impact, risk and opportunity management:** Providing guidance for organizations to report on how they manage and respond to sustainability impacts, risks and opportunities, and how these factors are integrated into their overall risk management

These overarching standards act as a compass and provide guidance to organizations on how to structure their disclosures to ensure clarity, relevance and consistency.

The Topical standards are divided into the ESG areas: Environment (green in figure 3), Social (red in figure 3) and Government (blue in figure 3). (European Union, 2023.)

These provisions establish disclosure requirements irrespective of the sector in which a company operates. These disclosure requirements supplement the general standards and include information that must be reported on:

- the strategies, objectives, measures and action plans, resources that the company has adopted on ESG issues
- as well as the corresponding performance measurement indicators for the ESG topics (European Commission, 2023).

The ESRS results are included in the CSRD report, which must be prepared at the end of the year for the previous year's performance. This report must be published in a separate section of the management report. Sustainability information is required to be as robust as financial information and therefore must undergo audit procedures (European Commission, 2023).

Digital product passport

The Digital Product Passport (DPP) is a concept developed as part of efforts to promote sustainability and a resource-efficient economy. It aims to provide information on a product's entire supply chain, including information on the origin of raw materials, reusability, repair and disposal. This initiative is part of the European Green Deal (EGD) and covers a wide range of products manufactured and sold in the EU. The regulation aims to ensure that companies provide transparent information about their products and thus comply with environmental and social standards. (Cieplik, 2022).

The exact timing of the legal introduction and obligation of the Digital Product Passport (DPP) varies by product category and industry and will be phased in. A general obligation for all product groups is planned for 2030 at the latest. The first DPPs will be mandatory from 2026, starting with resource-intensive goods such as batteries. At the same time, the EU is already promoting the first product passport approaches for textiles, cars and electrical appliances. (Cieplik, 2022).

The DPP should be machine-readable and accessible via data carriers such as NFC chips, QR codes or RFID tags. The EU Commission is working on standards for the DPP and is planning a central register for product passports. (Cieplik, 2022.)

An example how a DPP can look like on product label is given in Image 3. In this case, the data is provided with a QR code on the label of the tshirt.



Image 3. DPP barcode on a tshirt lable (Recover Textile Systems 2023)

3.2 Greenwashing

Greenwashing is the attempt by companies to achieve a clean image and to present themselves as particularly environmentally conscious without actually acting in the interests of sustainability. This is done through marketing or donations to environmental projects. (Oxford Languages 2024.)

Image 4 represents the act of greenwashing metaphorically. A grey, polluted city is painted over with green paint. In a figurative sense, this means that companies' actions are presented as greener, i.e. more sustainable, than they actually are. Environmental sins are covered up in this way, for example through marketing campaigns. (Kramer 2023.)



Image 4. The act of greenwasing represented metaphorically (Kramer 2023)

Sustainability can improve a company's image and attract buyers; this is discussed further in chapter 4.4 Which factors influence the purchase decision. Greenwashing, on the other hand, has the opposite effect, as customers lose trust in the company and feel betrayed. (Heinrich 2018, 8.)

EU directives such as the CSRD or the DPP should ensure that green washing is no longer so easy in future. Companies must provide transparent facts that can be checked and on whose correctness outsiders can rely. (European Commission, 2021.)

4 Website communication

Successful website communication is vital for engaging customers and driving sales. This chapter delves into the multifaceted aspects of eCommerce and User Experience (UX), exploring how these components shape the success of online stores and influence customer behaviour. Additionally, it examines the interconnectedness between website analytics, factors influencing purchase decisions, and the growing relevance of sustainability within web design.

4.1 eCommerce

E-commerce, or electronic commerce, encompasses all commercial transactions conducted over the Internet, including both the purchasing, and selling of products and services. E-commerce companies are digitally equipped and utilize online shops and payment systems to automate transaction processes. This approach enables companies to generate high profits with minimal effort and manpower. Furthermore, e-commerce facilitates access to sales markets irrespective of geographical location and distance. Additionally, online shops operate independently of traditional opening hours, allowing customers to place orders autonomously 24/7. The automation of processes also results in cost savings in logistics.

Ecommerce also offers a huge advantage for buyers. Image 5 shows a desk with a laptop on which icons representing online shopping are depicted. Purchasing decisions can be made conveniently from home and on the move.

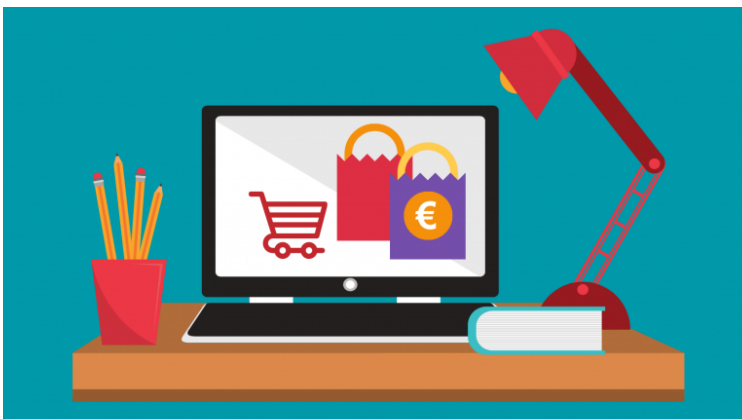


Image 5. eCommerce simply visualized showing online shopping on a Laptop (Steuerwald 2021)

But for companies, ecommerce also means a lot a preparation work. Until processes are automated, a lot of time and money must be invested in setting up the store. Planning and

implementation also require expert knowledge. Other disadvantages are that personal customer contact can be lost if the business is exclusively online and local shops die out. In addition, the competition online is much bigger than with a fixed physical location. (Leitherer, 2021.)

During the last decade purchasing over the internet got more popular and common as the bar chart by EUROSTAT in Figure 4 clearly shows. More specifically, it shows the percentage of internet users in Europe who bought goods online between 2017 and 2022. While around 65% of internet users made purchases online in 2017, this figure will be around 10% higher in 2022, what means ten percent more people using the internet 10% more people made use of ecommerce. (Ecommerce Europe et al. 2022.)

E-shoppers, Europe

Percentage of internet users that bought goods or services online

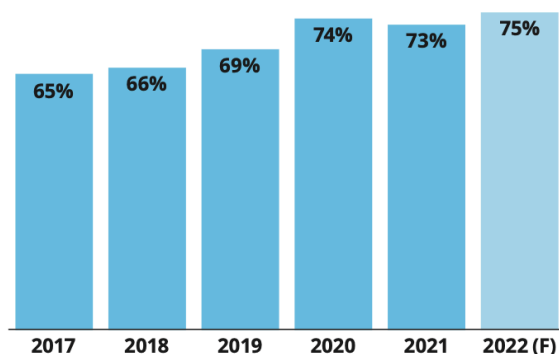


Figure 4. Percentage of internet users in Europe that bought goods or services online (Ecommerce Europe et al. 2022)

Anyways it is important to said e-commerce and bricks-and-mortar retail have their advantages. Although the importance of e-commerce has increased significantly in recent years, it still depends on the type of company as to which works better. (Leitherer, 2021.)

E-commerce marketing strategies

In most cases, a good online shop is not enough, especially when it comes to generating new customers. In addition, a company should adopt suitable online marketing strategies that help to generate reach so that the online shop can also be found online. (Engelhardt & Magerhans, 2019, 42-51.)

- Social media marketing: the company generates an additional communication channel with customers by creating content in social media
- Email marketing: regular emails to customers are used to draw attention to new products or offers and improve customer loyalty

- Search engine marketing (SEM): helps companies to be found better and faster by customers in search engines
- Affiliate marketing: advertising partners support the company with advertising measures. In return, they receive a commission
- Display advertising: includes all types of online advertising based on graphic media such as images or videos (Engelhardt & Magerhans, 2019, 42-51.)

4.2 User Experience

User experience, often referred to as UX, encompasses the entirety of a customer's interaction with a web shop. The primary goal of user experience design is to delve into the customer's mindset and determine what would provide them with a simple, intuitive, and enjoyable shopping experience. It is crucial to understand that UX goes beyond just visual aesthetics; it encompasses elements such as site speed, navigation, and mobile optimization. To achieve a seamless user experience, UX design focuses on five key aspects:

Utility

This aspect underscores the practical usefulness of the website or web shop. It is about ensuring that the platform serves a purpose and effectively meets the customer's needs. With the increasing prevalence of mobile devices in online shopping, it is essential to ensure that the website is optimized for mobile devices to provide a seamless shopping experience across various platforms. Additionally, page loading speed plays a crucial role. Slow loading times can frustrate users and lead to high bounce rates. Fast-loading pages not only enhance the user experience but also increase the likelihood of completing a purchase. Offering various secure payment methods provides customers with flexibility and convenience, removing obstacles to completing transactions. (Story of AMS, 2021.)

Usability

Usability revolves around streamlining the customer journey, making it clear and easy to navigate without unnecessary delays or clicks. A user-friendly interface is crucial for enhancing the overall user experience. Clear calls-to-action (CTAs): Well-defined and prominent CTAs guide users through the purchasing process, prompting action and facilitating conversions. Examples for CTAs are given in Image 6. (Story of AMS, 2021.)



Image 6. CTA examples (Maksimovic 2022)

Accessibility

Accessibility involves designing for inclusivity, ensuring that the website can be easily used by individuals from diverse backgrounds and varying levels of technological proficiency. This includes making accommodations for users with disabilities or those who may not be tech-savvy. (Story of AMS, 2021.)

Desirability

The desirability factor focuses on the look and feel of the website. It is important that the overall design reflects the brand identity comprehensively, strengthening potential customers' trust in the brand and allowing them to identify with it. Additionally, product presentation on the website plays a crucial role. Detailed product descriptions, high-quality images, and engaging videos enhance product presentation. (Story of AMS, 2021.)

Engagement & Trust

Tailoring the website experience based on user preferences, browsing history, and demographics can improve user engagement and foster a sense of connection with the brand. Features such as customer reviews (Image 7), security badges, and transparent contact information build trust and credibility with users, alleviating concerns and encouraging them to continue with their purchases.

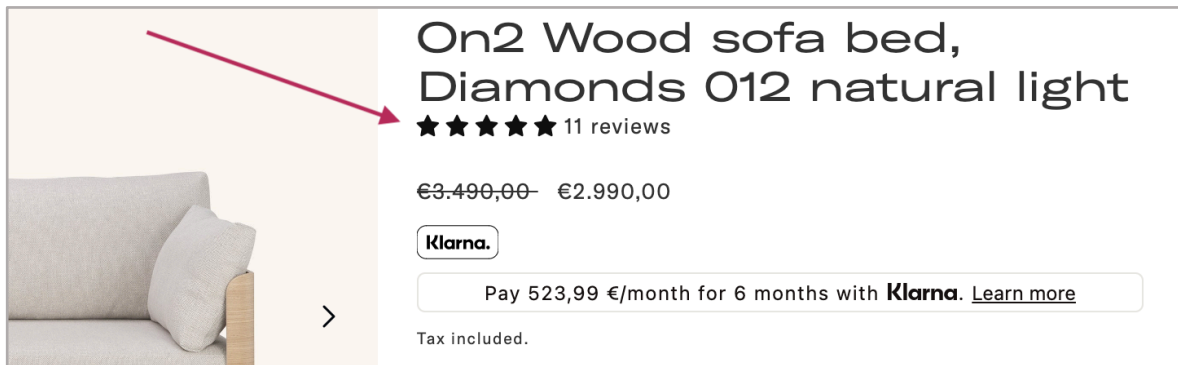


Image 7: Example for product review in an online shop (Antilla 2023)

Accessible customer support channels such as live chat, email, or phone support can address any questions or concerns users may have during their shopping journey, enhancing their overall experience. (Story of AMS, 2021.)

A successful UX design can significantly impact customer retention and the customer's purchase decision. It ultimately drives business growth by creating a positive impression on the visitor. The user experience (UX) plays a crucial role in determining whether potential customers return to the online shop, influencing every aspect of the business, particularly sales figures. (Story of AMS, 2021.)

4.3 Optimizing online stores

Designing an online store with the customers in mind can increase the UX and their purchase decision at the same time. When building an eCommerce website there are factors which really influence the success of a website. It is important to prioritize functionality over everything else. Unnecessary complexity should be avoided in order not to overwhelm the visitor, but to reduce information to an ideal minimum and thus optimize it. (Richter & Flückiger 2016, 15.)

Elaborate design features that involve movement may be visually appealing, but they can quickly become distracting and slow down page speed. Every element on the website must support the visitor in their goal. This may be to search for a product, to get more information about it or to make a purchase. Text and content should guide the design. (History of AMS, 2021.)

Improving a website by using website analytics

Web analytics can help companies to track and understand user behaviour on a website. This makes it possible to optimise website performance and improve the user experience.

By analysing data such as visitor numbers, visitor origin, page views and dwell time, targeted measures can be taken to improve user-friendliness and increase the conversion rate. It is important to know who the website attracts, how the visitors get to the website and how users interact with the website. The following analytic tools can help improving websites. (hotjar, 2024.)

Web analytics metrics are quantitative measures that capture and analyse the behaviour of website visitors to gain insights into their interactions and the performance of the website. This includes insights such as page views, visitor numbers, conversion rates and dwell time. Web analytics metrics help to understand who is visiting the website and how users are interacting with the content. Tools like Google Analytics or similar can be used to collect data. (hotjar, 2024.)

Session recordings make it possible to track the user journey across a website and understand how users move and what actions they take, as can be seen in in form of the red movement line in Image 8.

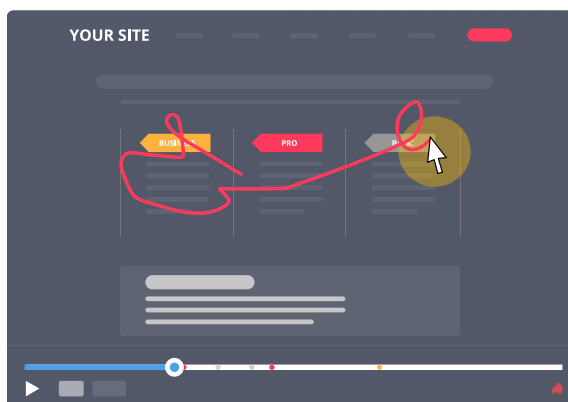


Image 8. Session Recording (hotjar 2024)

These recordings provide insights into user behavior and show which part of the page attracts them most, makes them go further into the conversion funnel or drop out, distracts them from a page's primary Call-to-Action ultimately leading to low conversions. By analyzing session recordings, optimizations can be made to improve the user experience and increase the conversion rate. (hotjar, 2024.)

Eye tracking tracks the eye movements of a user while they are looking at a website or application. It records where the user's eyes are directed, which areas of the screen are viewed and how long the gaze remains there. Eye tracking can provide insights into the visual attention of users and help to optimize the design of user interfaces. In comparison to session recording, eye tracking focuses specifically on visual aspects and less on interactions. (hotjar, 2024.)

Collecting feedback from users makes it possible to gain direct insights into their needs and concerns. Feedback can be collected through interviews, surveys or widgets on the website and helps to identify problems or areas for improvement. User feedback can be used to take targeted measures to optimize the user experience and increase the conversion rate. (hotjar, 2024.)

Heatmaps offer a visual representation of user behavior, aiding in the comprehension of user actions and focal points. They come in various forms, with the term "heatmap" typically associated with thermal camera-style visualization (Image 9). These visualizations can indicate mouse movement and clicks, as well as scrolling patterns or eye-tracking data.

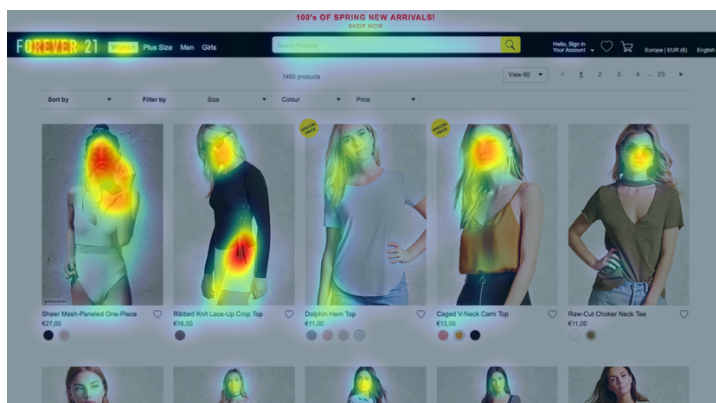


Image 9. Eye-tracking heatmap (Crowley 2019)

Image 9 above shows an eye-tracking heatmap. The red areas attract the most visitors while the blue areas are viewed less often. By visually simplifying complex data, heatmaps facilitate the identification of influential website elements, enabling improvements to enhance user experience and boost conversion rates. (Hotjar, 2024.)

4.4 Which factors influence the purchase decisions?

The factors of a website that play a role in the purchase decision have already been discussed in the chapter 4.2 User Experience. But which product factors do consumers pay attention to when making a purchase?

A German study from 2023 states that the most important factor for the majority of consumers in Europe is value for money. The balance between price and quality must be right. (Winner, 2023.)

Another important purchase criterion is availability, which is linked to the urgency of the purchase. How urgently the customer needs a product has an influence on whether he buys a product that would otherwise have been his second choice just because it is currently available and the first choice product has a longer delivery time. (Braungardt, 2023.)

Customers can also be incentivized by longer warranties and the offer of a repair. This is especially true for more expensive products from brands that promise high quality. It also effects trust in the product and gives customers the feeling of acting in the interests of sustainability by being able to have the product repaired instead of buying a new one. (Braungardt, 2023.)

Table 1 shows trend factors that influenced purchasing decisions in 2022. The data comes from the evaluation of a survey in which respondents indicated on a scale of 1 - 10 how important they considered the factors that influence their purchasing decisions in various consumer categories to be. A score of 1 stands for least important and a score of 10 means the highest importance a factor has. The information various categories are listed on the Y-axis. The X-axis represents six different factors that influence the purchase decision. The point scale ranges from 1 to 10 and the higher the number of points in the fields, the greater the influence of the factor in the respective category. Average values are marked in green in Table 1 for a better overview and values relating to the furniture industry are marked in purple. (Antošová et al. 2023, 91.)

Table 1. New factors influencing consumers' purchasing decision in 2022 (Antošová et al. 2023, 91.)

New factors influencing consumers' purchasing decisions in 2022							
Category	Method of purchase	Influencer recommendations	Discount codes	Extended return period	Country of origin	Ecological aspect	Average
Food and nonalcoholic beverages	5.6	3.9	5.6	4.8	5.3	5.1	5.0
Alcoholic beverages and tobacco	4.5	3.6	4.7	3.5	4.3	3.7	4.0
Health, pharmaceuticals, vitamins	4.7	3.5	4.5	3.7	3.9	3.7	4.0
Clothing and footwear	6.2	4.4	6.4	6.3	4.3	4.6	5.4
Furnishings	6.2	4.1	6.0	6.5	4.3	4.4	5.2
Transport	3.4	4.4	4.2	5.4	4.8	3.3	4.2
Education	4.5	3.9	4.5	4.0	3.8	3.3	4.0
Communications	5.3	3.4	5.0	4.6	3.3	3.4	4.2
Recreation and culture	5.8	4.9	5.9	5.3	5.1	4.0	5.2
Food and accommodation services	5.6	4.8	5.5	4.7	4.3	3.9	4.8
Average across categories	5.2	4.1	5.2	4.9	4.4	3.9	

Factors influencing the purchase decision include the type of purchase (online or in-store), influencer recommendations, discount codes and extended returns options that have developed with the rise of e-commerce. The row Average across categories (marked in green) gives a overview which factors are more significant than others. Discount codes have the

highest score and therefore the greatest impact on purchase decisions. And the method of purchase also plays an important role for customers. When it comes to sustainable consumption, consumers clearly care about the country of origin of the product and the environmental aspect of production (Antošová et al. 2023, 91.)

Purchase decision factors in the category furniture

Figure 5 lists important influencing factors such as design, severity of need, price, discount, quality, etc. that affect a consumer's purchasing decision. The diagram relates to the furniture category and shows the results of a study conducted in 2022. The scale on the Y-axis shows numbers from 1-10, where 10 means very important and 1 means not important. The two graphs in different shades of blue represent the years 2007 and 2022. The aim is to show how consumer attitudes have changed within 15 years. (Antošová et al. 2023, 89)

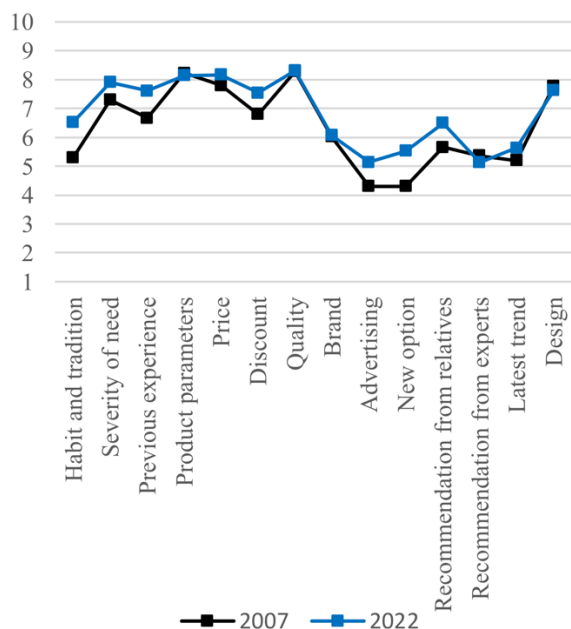


Figure 5. Purchase decision factors in the category furniture 2007 vs. 2022 (Antošová et al. 2023, 89.)

The in Figure 5 highest rated factors are quality and price. Moreover, the price-performance ratio also plays the biggest role when buying furniture, closely followed by the design factor. Compared to 2007, the factors advertising, recommendations from relatives and experts and previous experiences have become more important. This may be related to the fact that consumers have an extremely large selection at their disposal due to the increase in ecommerce. As a result, trust in a brand has become more important, as already shortly mentioned in chapters 4.1 Ecommerce and 4.2 User Experience. This is also reflected in Figure 5 regarding the high score of the factor previous experiences. This means that if a

customer has been satisfied with a piece of furniture in the past, they are more likely to buy more furniture from the same brand. (Antošová et al. 2023, 89)

Having a look on the purple marked row Table 1. It is obvious that the purchase factors method of purchase, discount codes and extent return period play the most significant role. Sustainable trends play a smaller role but are certainly important. This can be seen from the fact that two of the seven current trends apply to sustainability. (Antošová et al. 2023, 91.)

5 Research

Almost every website includes the menu item sustainability or responsibility. Mostly you will find long texts reporting on the sustainability of companies, but often in a very general context. This website research aims to filter out how transparent companies communicate insights about their products to their customers and how much actual information they provide in terms of material origin. The focus here is on brands comparable to Tapio Anttila Collection Oy. Retailers will also be analysed.

5.1 Comparison: What do companies communicate about material origins?

To see how precise other furniture companies communicate where their product's materials come from, a website research was made and documented in a excel table. The idea is to compare different actors like manufacturers, retailers and brands in different price classes, to see who shares the most. Important conditions for including companies in the research were, they act in the furniture category sofa/sofa bed, they are located either in the Nordic countries or central Europe and sell to Germany or Finland. In order to use this research later as an example for Tapio Anttila Collection Oy, it is important to analyse companies with a similar background like market, price class. The analysed market is limited to Germany because the brand thinks about expanding to the German market in the following years. Despite this, companies with a different price range are also included to see if there are any differences.

Documentation

For reasons of clarity, the table has been divided into three parts. The original table can be found in Appendix 1. When looking on Appendix 1 the role (retailer, brand or manufacturer) in which the company operates is described in the table's rows in different shades of green. The columns are divided into three different sections About the company (Table 2), About the product (Table 3) and Further information (Table 4), which are visually separated by different shades of grey.

Table 2. Company research and comparison documentation table 1 (Paula Stehle, 2024)

	About the company			
	Company	Head quarter	Market	Price range
Retailers				
Brands				
Manufacturers				

The first section contains information about the company, such as the company name, the Head quarter and the market, and the price segment in which the company operates. The company headquarters column refers to the information in the company's legal notice.

Table 3. Company research and comparison documentation table 2 (Paula Stehle, 2024)

	About the product														
	General Information			Information about Brand				Information about manufacturing			Origin materials				
	Standard	Name	Price	Name	Country	City	Address	Name	Country	Area, City	Address	Component list	Country	City	Address
Retailers															
Brands															
Manufacturers															

The second section provide information about the product being analysed, in this case three-person sofa beds. Firstly, general information such as the product standard (cheapest/most expensive/most popular product), product name and the price of the product.

Table 4. Company research and comparison documentation table 3 (Paula Stehle, 2024)

	Further Information	
	Notes	Source
Retailers		
Brands		
Manufacturers		

This is followed by information about the brand of the product and the manufacturer's details. In addition, it is asked whether individual materials of the product are listed and whether information on the origin of the individual materials is provided. In relation to the title of the paper, this is the most important part of this investigation. It is intended to show how transparently the companies provide insights into the furnishing components. The third

section consists of notes and a summary of the field source, in which the links to the websites will also appear. Three products, the cheapest, the most expensive and the most popular, will be analysed to see if there are differences according to price or popularity.

Research Results

Having a look on the outcomes in the table of Appendix 2. Five different retailers were analysed and it can be seen, that most of them share minimum the brand where the article is from. The information about the country where this brand comes from can be for half of the sofa beds. It is striking that the lowest-priced retailer Jysk does not share any information about the brand, not even a name. This could be because the items do not come from any real brands and Jysk does not want to share anything about their origin. This in turn could indicate that the item is made from cheap materials and under poor conditions. However, nothing could be found out about this, these are only speculations. For the 'most expensive' article, the retailers XXX Lutz, Rum21 and Otto.de shared information about the country of manufacturing. Not even once the manufacturing location was never shared in more detailed. Having a look on Information shared about the original materials it is noticeable on first gaze that single materials are shared for every analysed article. A reason for this might be that the single materials are a relevant part of the product sheet or product description and is therefore very relevant for a purchase decision. Consequently, this information cannot be seen as a indicator of sustainability.

In light of the brands research results it first has to be said, it was sometimes not possible to include three products as there were only two products in this category or there was no possibility to filter the product library to search for the cheapest, most popular or most expensive product what often happened looking on expensive brands. In total ten brands were analysed. Every analysed brand gives information about their own headquarter including country, city and address. However, this cannot be directly equated with transparency because it is due to the fact that websites that are used for business purposes are obliged to include this information in their legal notice (Bundesumweltministeriums & Bundesministerium für Umwelt, Naturschutz, nukleare Sicherheit und Verbraucherschutz. 2022). Concerning the information about the manufacturing, brands do not give more information than retailers in this comparison. But interesting to see is that when they share this information, they share it not only for one product. This could be because brands products are more uniform than retailers' products.

Manufacturers were intended to be part of this research; however, the challenge was that neither the websites of brands nor retailers provide any information about their manufacturers; there are simply no company names that could have been investigated further. If a

name was mentioned, then the manufacturer did not have an official website neither an online store where products can be found, so it was impossible to get any information.

To summarise, it is noticeable that many fields are filled with an X instead of any information. That shows less information is generally shared on the websites as expected. The retailers share less than the brands and especially when an article or a brand is more expensive, more information about the materials itself is shared on their websites.

6 Material Origin Research of a TAC product

This chapter is about a concept how to ask the manufacturer of TAC about material origin information about one of their products. TAC has many manufacturers for different furniture pieces. This part only focuses on deeper insights on the materials and their origins of the product On2 Wood sofa bed.

6.1 The product



Image 10. On2 Wood sofa bed (Anttila 2023)

The On2 Wood sofa bed (Image 10) is a versatile three-seater sofa that can be converted into a double bed with just a few hand movements. The special feature is that not only can the lying surface be enlarged and mattress toppers are hidden in the cushions and upholstery. This well-thought-out function makes the sofa an ideal solution for households without a separate guest room. The On2 Wood sofa bed can be used either as a double bed measuring 160 x 200 cm or as two single beds measuring 80 x 200 cm. The sofa combines design, functionality, and quality. The On2 Wood sofa bed is made of 24 materials and is available in two different fabric options and all together 6 different colors. The price is depending on the fabric either 2990 € (Hopper fabric) or 3490 € (Diamonds fabric). The product belongs to the brand's mid-price segment. The armrests are made of soap-waxed oak veneer and are very robust and durable. The upholstery is made of a high-quality fabric with removable covers, which is available in six colors. It is easy to clean and has a timeless elegance. The sofa is mostly manufactured, but that manufacturer has subcontractors. All of those are in Estonia, but the materials come also from other countries, while most of them come from the European area.

6.2 Manufacturer questionnaire

To get in contact with the manufacturer an excel table which needs to be filled out made (Table 5). The target is to get as detailed as possible answers about the single materials of the product On2 Wood sofa bed. The table was already sent by email to the responsible person in the manufacturing company including how the table need to be filled out. However, their answer is still pending.

Having a closer look on Table 5 each column (coloured green) asks for specific information about the origin of the materials used for the On2 Wood sofa bed. To make it as easy and fast as possible for the manufacturer to fill out the table, the single materials are already listed in the rows (dark grey). In order to obtain the most detailed answer possible from the manufacturer, the information requested becomes increasingly precise from left to right.

Table 5. Manufacturer questionnaire (Paula Stehle, 2024)

	suppliers material code/name	suppliers name	company location: country	company location: province	company location: city	company location: adress	material: country of origin	material: province of origin	material: city of origin	material: adress of origin
solid oak (leg)										
We don't want this information to be shared to TAC customers										
birch plywood (frame)										
We don't want this information to be shared to TAC customers										
glue (frame)										
We don't want this information to be shared to TAC customers										
steel supports (frame)										
We don't want this information to be shared to TAC customers										
plastic clips (spring attachment)										
We don't want this information to be shared to TAC customers										

The manufacturer is also given the option of not answering by putting an X in the field. Additionally, the possibility is given, that he gives an answer, but this remains with TAC and is not passed on to customers or suppliers by putting an X into the light grey field. The manufacturer should be given a feeling of cooperation and trust. TAC does not want to put anyone under pressure or reveal business secrets.

7 Communicating Sustainability to the customer

7.1 Current website

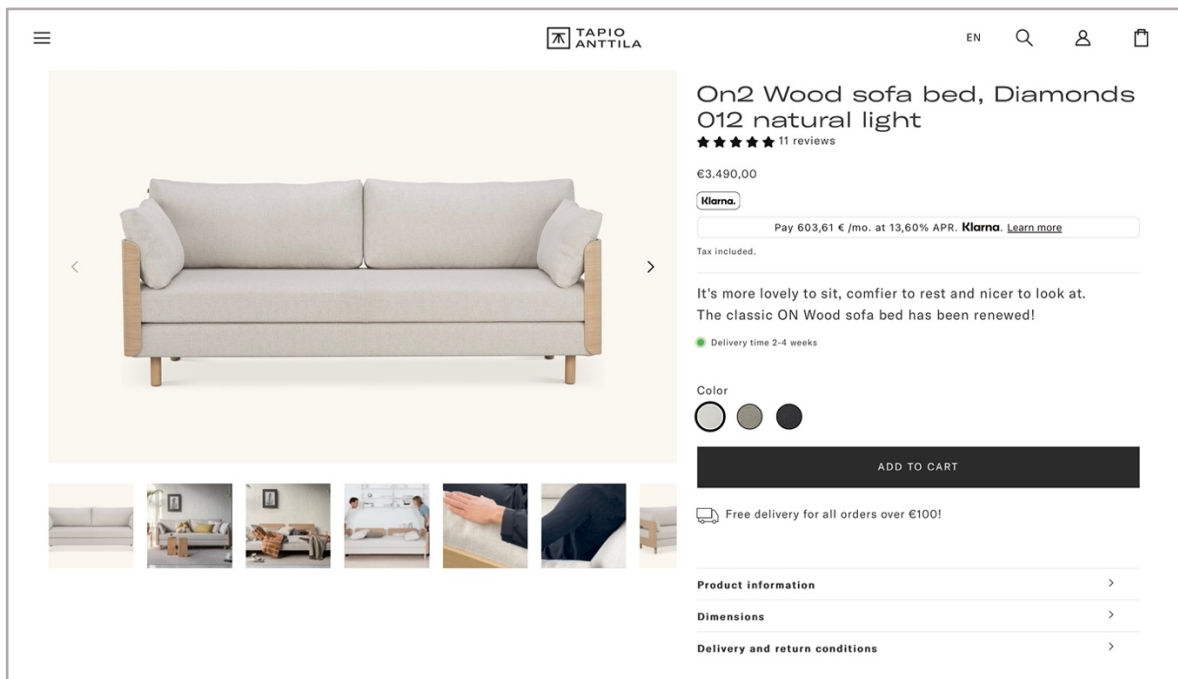


Image 11. Current product page On2 Wood sofa bed part 1 (Anttila 2023)

The current website of TAC, more precisely the page of the On2 Wood sofa described in chapter 6.1, is shown in Image 11 above and Image 12 below. Image 11 shows the upper part. On the left-hand side there are various product images, including a GIF showing how the sofa can be extended. The sofa is shown from several perspectives and staged in a room with decoration. An arrow function takes the user to the next image. There is also an overview of the other pictures below the main picture.

On the right-hand side, customer reviews and the price of the sofa can be found under the product name. Below this is information about the return period, a brief product description, availability and the color selection. Followed by the ADD TO CARD CTA is the information Free delivery for all over 100 €. Icons are used for the available colors and shipping information, among other things, which makes the website clearer and draws the focus of the website visitor. This is followed by product information, dimensions and the delivery and return conditions, which are labelled with an arrow where another window with more information can be expanded.

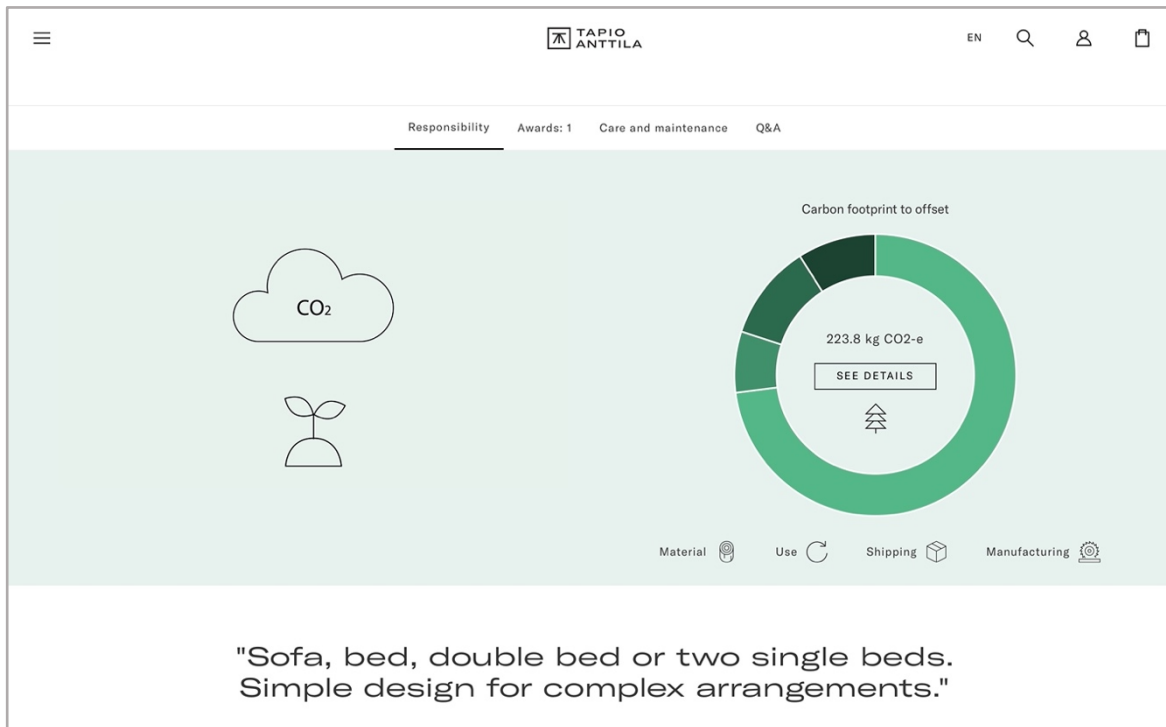


Image 12. Current product page On2 Wood sofa bed part 2 (Anttila 2023)

Scrolling down the website Image 12 can be seen. At the top there are menu items containing further product information on topics such as Responsibility, Awards, Care & maintenance and Q&A. The visitor can switch between the menu items with a click of the mouse. The Responsibility menu item is shown on Image 12. The graphic on the left-hand side moves around the website and visualizes the supply chain of a sofa. On the right-hand side, a pie chart shows the CO₂ emissions of the On2 Wood sofa bed and how these are made up. If the customer clicks on the CTA SEE DETAILS a window opens showing the breakdown of CO₂ emissions into material, use, manufacturing and shipping.

7.2 Website Concept



Image 13. Website Concept for the On2 Wood sofa bed product page (Paula Stehle 2024)

This concept (Image 13) was designed on the basis of Image 12 and shows where the original materials of the On2 Wood sofa bed come from. The illustration is located at the bottom of the product page, same as Image 12. The user therefore has to scroll to reach this part. In keeping with the theme of responsiveness and material origins in Image 13 is another menu item in the menu bar of Image 12.

A world map gives the viewer an overview of where the materials come from. Pins mark the countries from which materials are sourced. A legend with icons and descriptions on the right-hand side provides more detailed information on the origin of the various raw materials. If the visitor clicks on one of the icons, a window pops up with further information.

Through the use of icons and the colors already used, the concept fits in well with the rest of the website. The presentation of the world map in fine line art, which is reminiscent of the graphic in Image 12, also fits in with this. The clear visualization using a world map arouses the viewer's interest. Without having read a word beforehand, the website visitor can guess what this is all about.

This concept can be easily combined with the product page part 1 in Image 11, as all the necessary information can still be found on the main page. A note in combination with a leaf icon reveals that the customer can find out more about sustainability and materials by scrolling further down.

8 Development Ideas

Initial research, analysis and consideration has already been undertaken. TAC now faces a number of strategic steps to improve transparency and communication on sustainability.

The next step is to contact manufacturers of other products to obtain detailed information on the origin of materials. This process will form the basis for the development of a detailed digital product passport and preparation for the forthcoming CSRD directives.

Improving the user experience on the TAC website is also crucial. The use of advanced tools such as eye-tracking and refined audience definitions will soon provide insight into how users interact with the site. Based on these insights, TAC can make incremental improvements to the site to increase user engagement.

The website concept shown can serve as an initial inspiration, especially the idea of using a world map as a visualisation offers potential. In any case, it is important to include a hint so that customers scroll to this part of the website in the first place. On the other hand, it would also be useful to place the sustainability section higher up on the website. If, for example, information about the origin of the materials is displayed in a prominent position on the product pages, its importance is emphasised and brought into line with TAC's core values.

Additionally, a video could appear on the website showing the creation process of a product. From the harvesting and procurement of raw materials in the respective countries to the production steps and sustainable packaging. This visual storytelling could significantly enhance user engagement and convey TAC's commitment to sustainability.

Looking back on the beginning of the thesis process it would have been beneficial to conduct a customer survey or email survey at the university. It would have been interesting to ask people of different ages to what extent they pay attention to sustainability when buying furniture and how important sustainability is to them in general. People could also have been asked how they rate the Tapio Anttila collection Oy brand and website in terms of sustainability.

Another idea would have been to interview students or experts in the field of graphics or web design about how successful sustainability communication can look on a website and an online store.

To summarise, the future development of the TAC in the area of sustainability will require a multi-faceted approach. By increasing communication with manufacturers, improving the usability of the website, engaging directly with customers and utilising expert knowledge,

TAC can strengthen its sustainability image. These steps will ensure that TAC not only meets but exceeds evolving sustainability standards in the coming years and establishes itself as a leader in sustainable furniture design.

9 Summary

In today's consumer-orientated market, sustainability has not only proven to be a trend, but also an important factor in purchasing decisions. The push for transparency in the furniture industry is unmistakable. Consumers want to know where the materials used in the products they buy come from. This demand is driven by increasing concern for the environment and the desire for more responsible consumption.

The European Union has taken active steps towards sustainability with directives such as the Corporate Sustainability Reporting Directive (CSRD) and the forthcoming Product Passport Directive (DPP). These directives are intended to oblige companies to disclose their environmental impact and the origin of materials, thereby promoting accountability and transparency throughout the supply chain.

Tapio Anttila Collection Oy recognizes the importance of sustainability and wants to lead by example. Although it is not yet required by law, TAC proactively endeavors to be transparent about the origin of its materials. By liaising with manufacturers and preparing for compliance with future guidelines, TAC demonstrates its commitment to sustainability as a core value rather than a mere legal obligation.

This thesis examines the intersection of sustainability policies and website communication, focusing on how information about the origin of materials can be effectively communicated to customers. Through a combination of theoretical analysis and practical application, an attempt is made to harmonize corporate responsibility and user experience.

Furniture brands and furniture retailers comparable to TAC were analyzed in a comprehensive website research. The results show that very little information is shared about the materials of origin of their products. Often there are long vague texts instead of meaningful data that provide information about the origin of the materials. This emphasizes the importance of true transparency in building consumer trust and loyalty.

The research and manufacturer questionnaire form the basis for the subsequent website concept for one of the TAC sofa beds. This shows how sustainability can be presented visually on the website and still provide a successful user experience.

In conclusion, this work emphasizes the importance of transparency in the furniture industry and provides actionable insights for companies looking to adapt to evolving sustainability standards. By recognizing transparency as a core value, companies can not only differentiate themselves in the market, but also contribute to a more sustainable future for all.

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Appendix 2. Company research & comparison results (Paula Stehle, 2024)

	About the company			Market	Price range	About the product			Information about Brand			Information about manufacturing			Origin materials	City	Address	Further Information	
	Company	head quarter				General information	product name	price	Name	Country	City	Address	Name	Country					Area, City
Retailers	Jysk	DK	DE	€	Cheapest	Schlafofa JU	175 €	x	x	x	x	x	x	✓	x	x	Quality and g	https://jysk.se/da	
	Jysk	DK	DE	€	most popular	Sofa CEDVED	450 €	x	x	x	x	x	x	✓	x	x		https://jysk.se/da	
	Jysk	DK	DE	€	most expensive	Sofa KONGSF	999 €	x	x	x	x	x	x	✓	x	x		https://jysk.se/da	
	Otto.de	DE	DE	€-€€€	Cheapest	MCW/Schlafo	207,99 €	x	x	x	x	x	x	✓	x	x	Not sure if MC	https://www.otto.de	
	Otto.de	DE	DE	€-€€€	most popular	MCBELO Eck	799,00 €	Morebb	EU	x	x	x	x	✓	x	x	Most popular	https://www.otto.de	
	Otto.de	DE	DE	€-€€€	most expensive	Casa Padrino	12.599,90 €	Casa Padrino	ITA	x	x	x	x	(✓)	x	x		https://www.otto.de	
	Rum 21	SWE	FI	€€	most popular	Grand Kolmip	2.290,00 €	Decotique	SWE	x	x	x	x	✓	x	x	Link to the bri	https://www.rum.com	
	Rum 21	SWE	FI	€€	most expensive	Quilon Kolmij	10.085,00 €	HAY	DK	x	x	x	x	✓	x	x	Link to the bri	https://www.rum.com	
	Rum 21	SWE	FI	€€	Cheapest	Le Petite 3-1st	719,00 €	Decotique	SWE	x	x	x	x	✓	x	x	Link to the bri	https://www.rum.com	
	Nordic Nest	SWE	DE	€€-€€€	most popular	Sjovik 3- Sitzer	1.630,09	1898	SWE	x	x	x	x	✓	x	x		https://www.nordicnest.com	
	Nordic Nest	SWE	DE	€€-€€€	most expensive	Beck 3- Sitzer	9.791 €	Gärnsås	x	x	x	x	x	✓	x	x		https://www.nordicnest.com	
	Nordic Nest	SWE	DE	€€-€€€	Cheapest	Sjovik 3- Sitzer	1.630,09	1898	SWE	x	x	x	x	✓	x	x	same product	https://www.nordicnest.com	
	XXXLutz	AT	DE	€-€€€	most popular	Carryhome El	599,00 €	Carryhome	x	x	x	x	x	✓	x	x	Brand is owne	https://www.xxxlutz.com	
	XXXLutz	AT	DE	€-€€€	most expensive	Rolf Benz 3-SI	9.799 €	Rolf Benz	DE	x	x	x	x	✓	x	x		https://www.xxxlutz.com	
	XXXLutz	AT	DE	€-€€€	Cheapest	SCHLAWSOFA	229 €	MID.YOU	x	x	x	x	x	✓	x	x		https://www.xxxlutz.com	
Brands	Artek	FI	FI	€€€		Day Bed 710	around 4.000 €		FI	✓	✓	✓	✓	✓	✓	FI	Origin given o	https://www.artek.com	
	Artek	FI	FI	€€€		Kiki Sofa	around 4.000 €		FI	✓	✓	✓	✓	✓	✓	FI	Only sell throu	https://www.artek.com	
	Decotique	SWE	COM	€€	No website, only introduced by several Resellers														
	Rolf Benz	DE	DE	€€€		LIV	around 4.300 €		DE	✓	✓	✓	✓	✓	✓	DE	Only sell throu	https://www.rolf-benz.com	
	Rolf Benz	DE	DE	€€€		SINA	around 5.500 €		DE	✓	✓	✓	✓	✓	✓	DE	Only sell throu	https://www.rolf-benz.com	
	1898	SWE	COM	€€€	most popular	No website, only introduced by several Resellers													
	BoConcept	DK	DE	€€	most popular	OSAKASOFA	from 1.500 €		DK	✓	✓	✓	✓	✓	✓	DK	Own online sh	https://www.boconcept.com	
	BoConcept	DK	DE	€€	most expensive	SALAMANCA	from 3.989 €		DK	✓	✓	✓	✓	✓	✓	DK		https://www.boconcept.com	
	HAY	DK	COM	€€€		Mags3 Seate	from 3.560 €		DK	✓	✓	✓	✓	✓	✓	DK	Only sell throu	https://hay.com	
	HAY	DK	COM	€€€		ARBOUR 3 SE	from 4.399 €		DK	✓	✓	✓	✓	✓	✓	DK	Only sell throu	https://hay.com	
																		Fact sheets fo	https://assets.rolf-benz.com
																		Environment:	https://assets.rolf-benz.com
	Skargaarden	SWE	DE	€€€		SKANOR 3-SI	around 4.000 €		SWE	✓	✓	✓	✓	✓	✓	SWE		https://www.skaar.com	
	Skargaarden	SWE	DE	€€€		ANHOLT SOF	around 5.000 €		SWE	✓	✓	✓	✓	✓	✓	SWE		https://www.skaar.com	
	Muuto	DK	COM	€€€		Outline Highb	5.327,20 €		DK	✓	✓	✓	✓	✓	✓	SLOV		https://profession.muuto.com	
Muuto	DK	COM	€€€		Oslo Sofa 3-SI	3.086,50 €		DK	✓	✓	✓	✓	✓	✓	POL		https://profession.muuto.com		
Fritz Hansen	DK	DE	€€€		VIKRELYST SC	3.999 €		DK	Copenhagen	✓	✓	✓	✓	✓	DK	Only one proc	https://www.fritz-hansen.com		
Svensk Tenn	SWE	FI	€€€		SOFALLIJEVA	18.600 €		SWE	✓	✓	✓	✓	✓	✓	SWE		https://www.sve.com		