UNIVERSITY OF LJUBLJANA
SCHOOL OF ECONOMICS AND BUSINESS

MASTER THESIS

USING SCREENCASTING VIDEOGRAPHY TO ANALYZE CONSUMER ONLINE FASHION PURCHASE INTENTION: COMPARISON BETWEEN MEN AND WOMEN

Ljubljana, May 2022 MIHAELA KOLAČEVIĆ

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INTRODUCTION

The eCommerce market has evolved from a subtle complement to brick-and-mortar retail to a wholy new shopping mechanism that is here to stay. By 2020, the global eCommerce market had surpassed the € 1,18 trillion threshold in sales (Statista, 2021). Every year, the significance of online market grows in the retail business, accounting for a higher share of global sales (Statista, 2022). E-commerce covered 19.6% of global retail sales in 2021 and, as per estimations, online retail sales will account for a quarter of total worldwide retail sales by 2025 (Statista, 2022). Among others, fashion is the largest and one of the most mature business-to-consumer eCommerce market segments. Its global size is estimated to amount to €463.3 billion in 2019 and it continues to grow rapidly (Statista, 2021). As a result, worldwide revenue, and revenue per user in the clothing and apparel eCommerce segment, are both projected to grow (Statista, 2021; Orendorff, 2022).

Online shopping reshaped consumers' purchase interactions and reinvented fashion business requirements (Kanwal, Burki, Ali, & Dahlstrom, 2021; Amed et al., 2021). While there are numerous advantages to shopping online, customer interaction with fashion businesses is restricted due to technology dependence. Despite the abundance of consumer data available today, eCommerce fashion companies struggle to acquire accurate insights into their customers' interactions. As a result of a large volume of data, comprehending the context behind this data is becoming increasingly challenging. Fashion businesses should be aware of their consumers' changing digital needs and strive to increase their abilities to anticipate and influence those needs in the future. (Lobaugh, 2016). The first step is to improve and simplify fashion customer journeys by obtaining a thorough understanding of how online users navigate and seek information on their own devices. Interestingly, studies show that gender plays a particularly important role in online shopping behavior, as an essential segmentation factor for an online business to reach its target customers (Lin, Featherman, Brooks, & Hajli, 2018; Kanwal, Burki, Ali, & Dahlstrom, 2021). Knowing gender-based characteristics of fashion information searches and navigating through the interface can open a whole new world of website design and content display. Fashion businesses should position their websites and product offerings differently based on which (if any) gender they are targeting (Lin, Featherman, Brooks, & Hajli, 2018).

Due to their low cost compared to other approaches, self-administered online questionnaires are used in most current online consumer research activities (Pew Research Center, 2014). Surveys can rarely describe natural occurrences of customer actions and rely heavily on software for data collecting and processing. On the other hand, most non-survey-based studies used experimental websites and scientifically contrived environments to observe individual behaviors of online consumers (Lian & Yen, 2014; Murphy & Tocher, 2011; Hwang, 2010; Cyr et al., 2007 as cited in Kanwal, Burki, Ali, & Dahlstrom, 2021). And although experiment methodology is appropriate for analyzing online behavior, it is critical to examine the real-world behavior of online consumers. (Kanwal, Burki, Ali, & Dahlstrom,

2021). Consumer journeys, dynamic interactions, and interface navigations, among other components of the digital experience, have been poorly captured by earlier methodologies (Kawaf, 2019). This methodological constraint highlights the need for future research to examine real-world online consumer data from brand websites, which would benefit researchers and e-businesses in better understanding proper online gender behavior. (Kawaf, 2019; Kanwal, Burki, Ali, & Dahlstrom, 2021). Since the future prosperity and continuity of eCommerce will be dependent on buyers' choices, it is beneficial for consumer behavior researchers to expand the framework of the methodological approach. It is demanding to comprehend interests, wants, and preferences when adequate observational data on customers' online behavior is not available.

A way to unravel this problem is screencasting. The dynamic form of internet shopping should be the focus of future naturalistic methodological approaches, highlighting the conversion actions, mapping critical incidents, and drawing patterns that could lead to impactful implications (Kawaf, 2019; Kanwal, Burki, Ali, & Dahlstrom, 2021). Only a few studies have employed manual screen analysis to investigate consumer behavior and show how screencasts may be used as a detailed data source to learn about consumer interaction with their devices (Krieter, 2020). Thus, this research adds up to these few and focuses on applying manual screen recording analysis to a specific generation, accounting for between 80 and 95 million consumers, comprising roughly 30% of the population (Kiersz, 2014). Born between 1981 and 1996, Millennials are in their adulthood and, as such, are fast becoming the world's most important generational cohort for consumer spending growth (Bialik & Fry, 2020). They were raised along with technology, and they research online and seek out reviews before deciding to buy or even entering a store (Page, 2020; Deloitte, 2017). That has clear implications for brand investment (Deloitte, 2017).

Thereupon, this thesis will aim to tackle three goals. Firstly, to compare how Millennials, in terms of gender, differ in online search behaviors and purchase intentions on fashion websites. Secondly, it will employ the screencasting videography method to grasp these differences in online search behavior and provide gender-based patterns. Finally, it will recommend managerial solutions and practical guidelines to cope with these differences.

1 LITERATURE REVIEW

The first section of this research will be a literature review, to provide a better understanding of previous research efforts on the topics that make up the primary pillars of this work. Earlier academic literature will serve as a pillar for the following topics (1) online fashion and information search, (2) gender differences in consumer behavior and (3) gender differences in online shopping, (4) customer decision making in an online environment. The purpose of this literature review is to provide an overview of the examined sources, to draw conclusions, and to show how this research fits into the body of literature on the chosen topic.

1.1 Online fashion and information search

Fashion is the largest B2C eCommerce market segment and the online fashion industry has been steadily growing for years (Statista, 2021). Instead of visiting a boutique, customers now go online when they are in the discovery and consideration phase of their shopping journey (Duarte & Thomson, 2019). McKinsey COVID-19 Consumer Pulse survey states that 35% of consumers browse in online shops for fashion inspiration at least once per week, and according to a global survey by PwC, more than half (53%) of online shoppers say they shop more or exclusively online in the fashion category (Clapp, 2021; Gonzalo, Harreis, Altable, & Villepelet, 2021). Even though major online apparel companies experienced revenue drops due to pandemics in 2020, in Europe alone, it is expected that each consumer will spend around €810[1] on fashion-related items over the course of a year (Orendorff, 2021). The more online fashion gains momentum, the greater the need for a deep understanding of online customer journeys.

The pandemic lockdown had put physical stores on hold and cleared the way for online apparel. Companies that were digitally and analytically mature outperformed competitors that had not created robust digital and analytics capabilities before the crisis. The COVID-19 crisis has only widened the gap between industry leaders and laggards, and for leaders, the pandemic has been an accelerator (Gonzalo, Harreis, Altable, & Villepelet, 2021). Also, as stated in a State of Fashion report by Amed, et al. (2021), fashion executives agreed that COVID-19 and the economic crisis presented the biggest challenge in 2021 and digital has been the best potential for the industry's revival. Since the pandemic has significantly increased digital engagement, and some of the changed consumer habits are here to stay, reviewing and analyzing online experiences will become a vital step in improving customer touchpoints and retaining market share. Fashion brands must optimize the online experience and channel mix while finding appealing methods to integrate the human touch as online

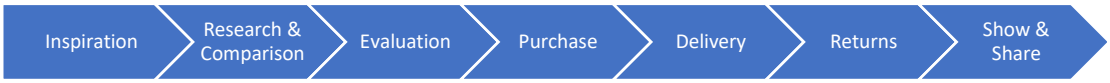
[1] Amount converted from US dollars according to the currency rate on the 14th of February 2022.

penetration rises and shoppers demand practical and sophisticated digital touchpoints (Amed et al., 2021).

Loureiro and Amorim (2017) highlight the features of online interactive experiences with fashion brands that help customers develop trust in online shops. The characteristics that fashion customers value and that help them to develop trust towards the website are (1) being satisfied with the information, (2) usefulness and minimal effort they recognize when using the website, as well as (3) previous experiences they have had while using it. Satisfaction with the information acquired and prior experiences boost trust in online information. Customer reviews, guidance, and suggestions provided by fashion websites help to advocate in favor of the fashion website. (Loureiro & Amorim, 2017).

The findings in a multi-phased study (Lynch & Barnes, 2020) articulate the stages of the omnichannel customer journey for fashion, which are displayed in Figure 1.

Figure 1. Stages of the omnichannel customer journey for fashion



Adapted from Lynch & Barnes (2020).

Although this study includes a sample of female high-involvement fashion customers, it acknowledges the fashion segment's digitization. In the pre-purchase step of buying fashion online, three new digital stages emerged: inspiration, research, and comparison (Lynch & Barnes, 2020; Gonzalo, Harreis, Altable, & Villepelet, 2021). The relevance of technology in influencing the client decision-making journey is further demonstrated by the fact that participants in the survey reported research and comparison phases appearing simultaneously and underlined that they relied on Internet research. The stated reasons for simultaneous research and comparison phases were (1) the influence of technology and the high availability of information to make decision-making more efficient, and (2) the desire to investigate all available possibilities before making a purchase (Lynch & Barnes, 2020).

Most online fashion purchases occur based on customers' wants rather than necessities (Lynch & Barnes, 2020). Customers are frequently not looking for a solution to a problem; instead, they are simply looking for something they desire. Kawaf (2019) mentions this in a customer journey analysis, where she distinguishes between purposeful and purposeless browsing on fashion websites. When attempting to accomplish a premium customer experience, inspiration stage necessitates providing fashion clients with compelling content (Kawaf, 2019; Lynch & Barnes, 2020).

SaleCycle, a UK-based global behavioral marketing firm compiled a list of online apparel shopping statistics in the online fashion market according to their 150 clients, some of them being the biggest global fashion brands. Highlights from this report include devices, seasonality, and reasons to buy online. Considering devices, mobile devices yield more digital transactions and online visits, and the fashion eCommerce market has been able to successfully transform mobile visitors into sales. Concerning seasonality, summer months and festival seasons perform well, while November, around Black Friday discounts, performs best. The most prevalent arguments for online purchases are more options for clients and the ability to compare costs on different websites. Customers prefer online shopping because they can get better discounts with promotional codes, sales, or offers (Ward, 2021).

From the consumer perspective, fashion has become a primarily digital industry segment since more than half of the shoppers conduct fashion purchases online (Clapp, 2021) and the pre-purchase steps of the online fashion customer journeys are digital (Lynch & Barnes, 2020; Gonzalo, Harreis, Altable, & Villepelet, 2021). Being already the biggest eCommerce business-to-consumer segment (Statista, 2021), fashion gains even more advancement with arising online penetration (Amed et al., 2021). Businesses can develop advanced client journeys by applying new methods for gaining insights.

1.2 Gender differences in consumer behavior

Consumer behavior, behavior of the greatest interest to any marketer, has been broadly studied for years. As defined by Kotler and Keller (2016), consumer behavior is the study of how individuals, groups, and organizations select, buy, use, and dispose of goods and services to satisfy their needs and wants. Consumer behavior is influenced by main factors: personal (age and life-cycle stage, occupation, economic circumstances, lifestyle, personality), psychological (motivation, perception, learning, beliefs, and attitudes), social (reference groups, family, roles and status), and cultural (culture, subculture, social class system) (Kotler & Armstrong, 2008, p. 93-98).

Devoted to clarifying the human brain and subconsciousness of the mind, Pradeep (2010) mentions that his company performed for years research on men and women and how their brains react to different aspects across various categories of consumer products and services. And the extensive testing had shown definite differences across 90 percent of performed studies. As a sum-up regarding differences in female and male (consumer) behavior, Pradeep (2010) indicates that the female goal is community, while the male goal is autonomy.

When comparing female and male brains, multiple sources (Pradeep, 2010; Goldman, 2017; Xin, Zhang, Tang, & Yang, 2019; Rosalind Franklin University of Medicine and Science, 2021) state the similar difference. The two hemispheres of a male brain act independently, whereas a woman's two hemispheres are more linked and function more in sync with each

other (Rosalind Franklin University of Medicine and Science, 2021). Gender-related brain structural differences might be related to gender differences in cognition and emotional control (Xin, Zhang, Tang, & Yang, 2019).

As a result, women process information using both the intellectual and emotional sides of the brain, whereas men process behavior using only one side (Pradeep, 2010). The explanation for this is that the female brain has more neurons connecting its sides. Men solve logical problems without emotional oversight, whereas women require emotional and cognitive supervision (Pradeep, 2010). Females remember more distinctly highly emotional situations than males, but they manage emotions better during stress (Pradeep, 2010; Goldman, 2017). Men and women have different brain chemistry and processing tendencies. Both process the same neurochemicals, but they do so in distinct ways. Men and women process serotonin, which is linked to happiness and depression, differently. (Grant, 2018). These brain differences must, to some extent, translate into behavioral differences (Goldman, 2017). Therefore, when presented with the same information structure, female and male brains will process it differently, and perhaps have a different purchase decision-making journey. For example, compared to men, women expand on the given information, and tend to make more associations between multiple kinds of information, compare brands based on numerous features, and link products to contextual information (Pradeep, 2010; Arcand, 2012). Due to women's predisposition for elaborative processing and their keen eye for detail, marketers have a wealth of opportunities to adjust their online product positioning. Internet use and related brain activity follow a particular efficiency pattern (Naughton, 2018). Current technological progress enables a website's design and information structure to be implicitly customized to information processing style (Arcand, 2012). Previous findings also imply that men’s and women’s abilities to find various types of information online are not significantly different. (Hargittai & Shafer, 2006).

The presented literature summarized the relevant academic literature on gender-based divergence in male and female brain operation, as well as differences in male and female information processing.

The following framework of collected practitioners’ research papers regarding gender differences in consumer behavior is presented in a form of a chronologically listed Table 1 of reviewed research, with a focus on decision-making styles. The list includes peer-reviewed journal articles and published articles in professional journals with comprehensive empirical research.

Table 1. Chronologically listed table of articles on the topic of gender differences in consumer behavior, with a focus on decision-making.

TITLE	AUTHOR AND YEAR	METHODOLOGY	CONCLUSION
Male versus female consumer decision making styles	Bakewell and Mitchell (2006)	Questionnaire	Male and female decision-making styles vary, and the researchers suggest that a decision-style inventory should be developed specifically for men.
Revisiting gender differences – What we know and what lies ahead?	Meyers-Levy and Loken (2015)	Literature review	Females: favor promotions that benefit self and others, indicate greater awareness and empathy, prefer socially and sensory-rich in person shopping, favor personalized loyalty programs, exhibit more cautiousness and avoidance in their behavior. Males: favor promotions that benefit the self, favor efficiency, show more risk seeking, assertiveness and directness, fixate on less data, pursue more simplified search when shopping by relying on salesperson recommendations or price data
Gender differences and consumer behavior of Millennials	Kraljević and Filipović (2017)	Questionnaire	Women are more sensitive to price than men. Female customers tend to own loyalty cards more than men and they also use more loyalty card rewards.
Consumer Decision Making Style - Male Versus Female	Rahman (2019)	Questionnaire	Consumer decision making styles aren't different in case of male or female.

(table continues)

(continued Table 1: Chronologically listed table of articles on the topic of gender differences in consumer behavior, with a focus on decision-making)

Gender-based behavioral differences in the purchase decision-making process	Tevšić and Nanić, (2020)	Online questionnaire	Females: more impulsive, value quality more, they find shopping and trying on clothes pleasurable Males: shopping for them isn't a form of entertainment, they value short time buying process Both: buy at discounted prices whenever possible.
Gender-based differences in consumer decision-making styles: implications for marketers	Mehta (2020)	Questionnaire	Female consumers are more recreation-oriented, price conscious, as well as novelty fashion conscious. Female consumers were not found to be more habitual brand loyal.

Source: own work.

The summary of the Table 1 includes the following notes:

Women display greater awareness and empathy while preferring sensory-rich shopping experiences (Meyers-Levy and Loken, 2015). They favor promotions that benefit them and others and are more cautious but recreation-oriented in their purchasing behavior (Tevšić and Nanić, 2020; Mehta, 2020).

On the contrary, men fixate on fewer data than women and value efficiency and simplified short-time processes (Meyers-Levy and Loken, 2015; Tevšić and Nanić, 2020). They favor promotions that benefit them and display more risk-seeking and directness in their consumer behavior (Meyers-Levy and Loken, 2015; Tevšić and Nanić, 2020).

During the pandemic period, significant changes in factors that influence consumer behavior, such as economic circumstances, gender roles, beliefs, and attitudes, appeared and sparked the interest among consumer behavior researchers. For example, a recent study on how purchase decisions changed during the pandemics shows that Millennials are changing their shopping behavior more than any other generation (Thomas, 2020). Additionally, male and female consumer behavior adjusted differently to the pandemic. Men, compared to women, showed a higher impact on where and how they shop and what they buy (Petro, 2020; Statista, 2021). Moreover, men reported more impact on their spending decisions than

women. As a result, men shopped more frequently online than women, (Petro, 2020; Statista, 2021).

As in this world crisis, genders also displayed differences in consumer reactions (Petro, 2020; di Crosta, 2021; Statista, 2021); further research is needed to keep up with the changes in the factors that influence consumer behavior.

1.3 Gender differences in online shopping

Nowadays, a variety of research combines the topic of online customer behavior and the gender variable. Yet, some particular fields of online shopping lack methodological and sampling diversity.

According to Ling and Yazdanifard (2014), gender makes a significant difference in online consumer behavior, and gender is said to be a pivotal element that affects every single process during online purchasing. A latest study on the determinants of Millennials' online shopping behavior, confirms it by identifying gender as the most significant demographic variable influencing Millennials' online shopping behavior (Melović, Šehović, Karadžić, Dabić, & Ćirović, 2021). On the other hand, sources state that gender did not have a significant impact on purchase intention (Afshardost, Farahmandin, & Sadiq Wshaghi, 2013), that men and women do not significantly differ in their self-expressed evaluations of eCommerce websites (Nissen & Krampe, 2020), or that no significant difference between male and female consumer decision-making styles exists (Rahman & May, 2019).

Due to differences in brain anatomy and processes, different gender displays disparities across various studies (Pradeep, 2010). When these brain differences translate to behavioral differences (Goldman, 2017), they can result in contrasting actions in online customer behavior. Kim, Lehto, and Morrison (2007) explain that compared to their male counterparts, women are more likely to have favorable attitudes towards different website functionalities and contents. Lin, Featherman, Brooks, and Hajli. (2018) state that men are more affected by the interactivity of a website than women are.

Even though men and women differ in web navigation behavior (Richard, Chebat, Yang, & Putrevu, 2010), most online fashion retailers nowadays present information in the same method to all their segments. When considering how the target market’s brain processes the given information in reality, perhaps the same structure will not perfectly fit all the website visitors.

A female visitor, for example, will in her information processing regularly skip from one to the other hemisphere of her brain, while a male visitor will tend to focus on one thing at a time, compartmentalize and use one hemisphere (Pradeep, 2010; Goldman, 2017; Xin, Zhang, Tang, & Yang, 2019; Rosalind Franklin University of Medicine and Science, 2021). She will value authenticity and the stories of others since, in her nature, she is more

empathetic, while he will appreciate getting to the point and answering the question "What's in it for me?" (Pradeep, 2010). Thus, it is beneficial to design websites for female audiences that have a wealth of information provided in a variety of formats, as well as numerous links to related topics. Keep it brief, limit the content to critical topics, provide a comprehensive overview, and visual reinforcement of spoken information for male audiences (Richard, Chebat, Yang, & Putrevu, 2010). Men will choose an online environment that is practical and efficient, with simple access to product information and simplified order placement (Richard, Chebat, Yang, & Putrevu, 2010).

Ulbrich, Christensen and Stankus (2010) conducted an online questionnaire study in which participants rated the importance of various characteristics of e-commerce websites. Male and female online shoppers ranked different features as essential. Male online shoppers rated accurate description, fair pricing, easy tracking, and a wide variety of products highly, while women considered return labels, correct sizing information, and quick-loading pages more necessary. On the other hand, in their three-phased research paper, Nissen and Krampe (2020) combined online questionnaires and a neuroimaging method. The self-reported results revealed that men and women do not significantly differ in their expressed evaluations of eCommerce websites. The neural results indicated that gender-related differences in the perception of eCommerce websites are influenced by unconscious effects. The research clarified that perceptional and evaluation differences exist between men and women, yet they do not become explicitly visible in self-reported measurements, such as online questionnaires (Nissen & Krampe, 2020).

This research will explore research questions that compare the gender variable with online shop and product page features usage. Table 2 provides an overview of existing research contributions and is afterward used to highlight the potential research gaps. It is a chronologically organized collection of relevant peer-reviewed journal articles and published articles in professional marketing journals on gender variations in online consumer behavior.

Table 2. Overview of collected articles on the gender differences in online shopping behavior and preferences.

TITLE	AUTHOR AND YEAR	PURPOSE AND METHOD	FINDINGS
Gender differences in online travel information search: Implications for marketing communications on the internet	Kim, Lehto and Morrison (2007)	The purpose was to empirically examine the gender differences in online information attitudes. Data was collected by a telephone survey.	Significant differences between women and men in terms of attitudes toward travel website functionality and scope, as well as actual online information search behavior.
The influence of college students' shopping orientations and gender differences on online information searches and purchase behaviours	Seock and Bailey (2007)	The purpose was to examine the relationships between participants' shopping orientations and information searches, purchases of apparel products online, as well the differences between males and females in their shopping orientations. Used methodology was an online self-administered survey.	When compared to men, women conducted a greater number of online information searches and had a greater number of purchases of apparel products than male participants.
Exploring gender differences in online shopping attitude	Hassan, (2009)	Using attitude as a concept to include cognitive, affective, and behavioral components, the study examined gender differences across the three attitudinal components. Data was collected through an experiment**.**	Results identify three components of online shopping attitude: cognition, affect, behavior. Women's cognitive attitude towards online shopping is lower than that of men. Affective attitude of women is lower than that of men. Men demonstrate higher behavioral intention to shop online than women.

(table continues)

(continued Table 2: Overview of collected articles on the gender differences in online shopping behavior and preferences.)

Gender-specific on-line shopping preferences	Ulbrich, Christensen and Stankus (2010)	The purpose was to elaborate on how different online shopping features are perceived by genders. Used methodology was an online survey.	The study showed that male on-line shoppers ranked accurate description, fair pricing, easy tracking, and wide variety of products very highly; while female shoppers considered return labels, correct sizing information and quick-loading pages more important.
Does Gender Play a Role in Online Consumer Behavior?	Ling and Yazdanifard, (2014)	In this study, gender differences are investigated with various factors such as perception, motivation, preferences which influence online consumer behavior. Data was collected through a literature review.	Gender role makes a significant difference in online consumer behavior. Gender is a crucial factor which affects every single process during online purchasing.
Lady first? The gender difference in the influence of service quality on online consumer behavior	Wang and Kim (2017)	This paper aims to articulate the gender differences in the influence of service quality on online consumer behavior. Data was collected via an online questionnaire.	Efficiency dimension of e-service quality is of same importance for male and female customers. There are significant gender differences in the responsiveness and reliability dimensions of e-service quality.
Exploring Gender Differences in Online Consumer Purchase Decision Making: An Online Product Presentation Perspective	Lin, Featherman, Brooks, and Hajli. (2018)	This research aims to identify and explain gender differences on the impacts of predefined important characteristics on consumer decision making. An online survey was administrated which gathered data.	To influence their purchase intentions via their attitudes, men are more affected by the interactivity of a website than women are. In contrast, women are more affected by vividness and perceived risk.

(table continues)

(continued Table 2: Overview of collected articles on the gender differences in online shopping behavior and preferences)

Mobile Consumer Behavior in Fashion m-Retail: An Eye Tracking Study to Understand Gender Differences	Tupikovskaja-Omovie and. Tyler (2020)	Study analyzed the gender differences in mobile consumer behavior using eye tracking technology by tracking the actual shopping process online.	All the data types used showed behavior differences regarding the gender. Study found that in most cases women placed more attention on the product reviews than men. Furthermore, men made use of the suggested products and product details far more than women.
Why he buys it and she doesn't – Exploring self-reported and neural gender differences in the perception of eCommerce websites	Nissen and Krampe, (2020)	Study investigated gender-specific differences in the evaluation of ecommerce websites. Methods were 2 online questionnaires and neuroimaging; users' conscious and unconscious (neural) evaluations of ecommerce websites were explored.	The self-reported results reveal that men and women do not significantly differ in their expressed evaluations of ecommerce websites. However, the neural results indicate that gender-related differences in the perception of ecommerce websites are influenced by unconscious effects.
From Mars to Venus: Alteration of trust and reputation in online shopping	Oghazi, Karlsson, Hellström, Mostaghel, & Sattari (2020)	The purpose was to examine whether sex-related differences drive dissimilarities in purchase intentions. Used methodology was an online survey.	Women are likely to report higher levels of purchase intentions with increasing levels of reputation, whereas men are likely to report higher purchase intentions with higher levels of perceived trust.

Source: own work.

To sum up the table above, we can conclude that existing literature agrees on the following:

- gender variable influences online consumer behavior (Kim, Lehto & Morrison, 2007; Seock & Bailey, 2007; Ling & Yazdanifard, 2014; Lin, Featherman, Brooks, & Hajli., 2018; Tupikovskaja-Omovie & Tyler, 2020),
- different genders display different attitudes, perceptions, and preferences towards online shopping and its dimensions (Hassan, 2009; Ulbrich, Christensen & Stankus, 2010; Negahdari, 2014; Wang & Kim, 2017; Nissen & Krampe, 2020)
- different genders value different features of online vendors (Ulbrich, Christensen & Stankus, 2010; Wang & Kim, 2017; Lin, Featherman, Brooks, & Hajli, 2018; Oghazi, Karlsson, Hellström, Mostaghel, & Sattari, 2020), in addition, some features are highly valued by both genders (Wang & Kim, 2017)

However, it is unclear how the dynamical digital interactions with multiple online fashion retailers differ when segmenting participants based on gender. Research that compares male and female online consumer behavior, that uses methods other than online questionnaires, is not scientifically contrived and tries to directly observe what naturally occurs in an online environment familiar to the customer, is underrepresented. In addition, there is not a lot of research available that focuses on comparing gender groups based on the usage of specific online shop and product page elements. As explained above, prior research focused on using questionnaires, often online, self-administered, as their primary data collection methods. Nissen and Krampe (2020) explain that available research on gender differences regarding perception and evaluation of websites yields contradictory results, so they added up to self-administered online questionnaires and followed them by neuroimaging. Online questionnaires did not confirm gender-based differences, yet the neuroimaging method showed the differences between men and women. The contrast among the genders exists, yet it does not always become explicitly visible in conscious measurements (Nissen & Krampe, 2020).

There is a gap in research comparing male and female browsing behavior on the actual fashion retailers' websites on smartphones (Tupikovskaja-Omovie & Tyler, 2020) and participants' own devices (tablets or personal computers). The research gap also exists in comparing male and female online customer behavior that uses non-student samples (Sohail, 2020), and explores the usage of specific website and product page elements. Therefore, this thesis will fill these research gaps by conducting the research process on a non-student sample and comparing gender-based online customer behavior on participants' own devices.

1.4 Customer decision making in an online environment

The steps in the customer decision-making process do not differ among traditional retail and online retail environment. Sources that describe the traditional environment (Kotler & Keller, 2016, p. 99) and the ones that explain the online environment (Petcharat & Leelasantitham, 2021; Chen, 2009, Karim, 2015) agree on the following stages of consumer buying decision process: (1) need/problem recognition, (2) information search, (3) evaluation of alternatives, (4) purchase decision, and (5) post-purchase behavior. Nevertheless, the availability of technology explaines the distinctions between traditional retail and online decision-making (Chen, 2009; Punj, 2012). In an online environment, these distinctions include access to electronic sources of information (Punj, 2012) and the availability of electronic decision aids (e.g., recommendation agents, shopbots) (Häubl & Trifts, 2000; Punj, 2012). The lack of physical limits on product presentation is another distinguishing aspect of electronic shopping environments. Having access to many products is highly beneficial for consumers, yet their cognitive capabilities may not absorb potentially extensive volumes of information (Häubl & Trifts, 2000; Chen, 2009; Punj, 2012; Willman-Iivarinen, 2017). Data-driven interactive decision aids provide a solution to this informational saturation and help consumers effectively manage and capitalize on the enormous amounts of product information (Häubl & Trifts, 2000; Punj, 2012; Willman-Iivarinen, 2017). Product categories and personal traits determine customer involvement in the online decision-making process (Häubl & Trifts; Chen, 2009). For purchases that request a higher level of involvement, consumers are more likely to incorporate comprehensive online information search and evaluation into their selection process (Chen, 2009).

Senecala, Kalczynskib and Nantelc (2005) suggest that the Internet's low information costs enhance the amount of information gathered by users, Chen (2009) adds that consumers, during their purchase process, seek and analyze in an online environment more actively because of the abundance of information available on the Internet. Willman-Iivarinen (2017), and Mican and Sitar-Taut (2020) state that online purchase decision-making is complex and influenced by several factors. In literature, online consumer decision-making process is extended with additional phases to illustrate its complexity. Chen (2009) disintegrates information search as well as evaluation steps into separate subphases, Karim (2015), expands on the online decision-making process by adding formulation and appraisal stages, and Petcharat and Leelasantitham (2021) add up a whole new separate phase of information recognition, which they define as a step where a customer embraces the final decision of purchasing via an online shopping platform.

The above-mentioned sources, together with the literature review, are used as a basis for establishing research questions.

2 SCREEN RECORDING

A screencast is a digital recording of computer screen output, also known as a video screen capture or a screen recording (Wikipedia, 2022). Screen recording or a screencast is a video of all onscreen activities (Krieter, 2020). In this thesis, screencasting is a primary data collection method. The relevance of employing this method is providing a detailed and multi-modal dataset for the practical part while understanding how customers navigate and seek information about fashion products on their own devices.

Educators and trainers in a teaching context, streamers showcasing their video gaming expertise, or just amateurs as a medium for sharing screen-related activities – they all employ screen recording or screencasting (Kawaf, 2019). Another use for screen recording is to learn how users interact with software to evaluate the usability and user experience (Krieter, 2020). From the user experience perspective, Shevchenko, Kuhlmann and Reips (2021) conducted two phases of screencasting studies to develop and improve the application for researchers and its purpose. From an educational perspective, MacKenzie (2021) examines the use of screencast video software for student project feedback in an engineering technology management course. Students held high regard for this method of input, and from the faculty's side, this method allowed for more comprehensive comments on the student's work in less time per assessment than written feedback (MacKenzie, 2021).

Screencasting has strong potential to be applied in online customer behavior research. From a marketer's perspective, screencast videos establish a view into the audience's online interactions and needs. They show how users have fulfilled their agenda and allow accomplishing greater comprehension of customers' online touchpoints.

2.1 Screen recording as a method for research

Watching screencasts allows a researcher to gain insight into nearly any activity, behavior, or task that a user is engaged in when using a computer system (Krieter, 2020). When studying digital occurrences, screencasting as the primary data collecting method involves capturing the on-screen interactions of digitally occurring experiences (Falaschi & Athey, 2008; Kawaf, 2019).

Kawaf (2019) defines screencasting videography as a research method that adopts a dynamic visual form of inquiry. The screencast videos capture dynamic on-screen interactions and experiences as they occur, which helps offer detailed records of online experiences (e.g. online shopping, information search, dating, video gaming, gambling, etc.) that are not usually observable using conventional methods. Screencast videography focuses on capturing digitally occurring experiences in their dynamic form, rather than static instants from among such experiences (Kawaf, 2019; Krieter, 2020; Falaschi & Athey, 2008; Imler & Eichelberger, 2011). Kawaf (2019) makes a comparison of screencasting videography to

netnography and videography, highlighting the key differences. She indicates that screencasting videography combines all the benefits of videography and netnography into a single technique. Videography focuses on dynamic and live interactions, whereas netnography documents cultures and communities through their online interactions and experiences. Screencasting videography combines all, computer-mediated or digitally occurring experiences, dynamic digital live interactions, on screen activities and behaviors, as well as movement and dynamics in digital environments. As such, unlike netnography, it is concerned with dynamic understandings rather than static representations of experience in the digital environment (Kawaf, 2019). Finally, Krieter (2020) provides a scalable method for automatically analyzing mobile screen recordings on the user's mobile device that respects privacy in his dissertation.

Falaschi and Athey (2008), and Imler and Eichelberger (2011) describe screen recordings as a new developing sort of digital asset and inexpensive, user-friendly way to enhance electronic resource usability. Falaschi & Athey (2008) recorded the screen motions and eye movements of new users to improve the user experience of their applications. This data enabled developers to understand what customers are doing while using applications, allowing developers to create a better user experience that matches customer needs (Falaschi & Athey, 2008). Similarly, Imler and Eichelberger (2011) used screen capture technology to learn more about student usage of the library's databases. In both cases, screencasting proved as a valuable method of observing human interaction with the interface.

Anesbury, Nenycz-Thiel, Dawes, and Kennedy (2015) compared the user behavior of grocery shopping in an online environment with the one in an offline environment. They used screen recording for the online and video recording for the offline environment. The results were compared to the results of published work on in-store grocery shopping, and they demonstrated that online grocery shopping mainly resembles in-store grocery shopping. The study observed detailed behavior of inexperienced online grocery shoppers, who were screen recorded while they undertook an online shopping trip (Anesbury, Nenycz-Thiel, Dawes, & Kennedy, 2015). The results indicated that screen recording was an adequate method to explore online grocery shopping.

Screen recording analysis explains how users get around the interface (Falaschi & Athey, 2008; Krieter, 2020). Researchers who used this method to acquire insights (Falaschi & Athey, 2008; Imler & Eichelberger, 2011; Anesbury, Nenycz-Thiel, Dawes, & Kennedy, 2015; Kawaf, 2019; Krieter, 2020; Shevchenko, Kuhlmann & Reips, 2021) recognize the benefits of using screencasts.

2.2 Advantages and disadvantages of screen casting videography

Every research method brings its gains and losses, and it is up to the researcher to choose which practice fits the research problem. The review of the available literature resulted in a structured table of the advantages and disadvantages of screencasting. Every step taken to overcome the complexity and systemize the available data is a step that could provide even better recognition and usage of this research practice.

Table 3. Advantages and disadvantages of screen casting videography as a research method.

Dimension	Advantages	Disadvantages
Environment	The visual, dynamic method observes movements in digital environments and maps the on-screen interactions and experiences as they occur.	Impossible to practice outside of the screen-based environment. Data analysis is time-consuming.
Multimodality	Possibility of the simultaneous camera and audio recording to map the overall experience with evidence and explanation of participants' reactions.	Imposes obtrusiveness to the participant, displays a privacy breach and further complicates data processing.
Software	Software availability and the possibility to conduct research exclusively online.	Software and hardware requirements for participants.
Results and processing	Research results in detailed records of online experiences that cannot be detectable by other methods. Video analytics automation exists.	Data processing must be done manually, with the initial step of watching and re-watching, since video analytics automation is not yet used in research.
Distinctiveness	Works not only with freely shared data but also with the behaviors of individuals behind the screen that might not result in a sharable trace.	Instructs more involvement from participants, as recording one's screen requires more than simply commenting.

Source: own work.

To sum up Table 3, the disadvantages of screen recording are not more plentiful than other methods, nor do they surpass the advantages. Krieter (2020) proposed a solution to demanding data analysis. Even without the data analysis automation, the purely online execution can save costs from the research budget that would allow employing help in processing the video material. Privacy concerns exist within other methods and are solved by consent forms and incentive offerings.

Screen recording in eCommerce research often gets outshined by online questionnaires due to their simplicity and quickness (Pew Research Center, 2014). The case for using screencast videos in this thesis evolves from a comparison between male and female online consumer behavior, particularly fashion information search and pre-purchase activities that lead to purchase intention. After a comprehensive explanation of screencasting videography in a role of a research method, the next chapter will present a conceptual framework.

3 CONCEPTUAL FRAMEWORK

The conceptual framework will bring together the constructs linked together in a logical manner, supported by relevant theory about (1) consumer buying decision process and Zero Moment of Truth (2) terminologies in eCommerce and website design.

3.1 Consumer buying decision process and Zero Moment of Truth

Through its development, the Internet has been providing consumers with information and opportunities to compare products, features, and prices. Therefore, the online decision-making process for products or service purchase is complex and influenced by several factors (Mican & Sitar-Taut, 2020).

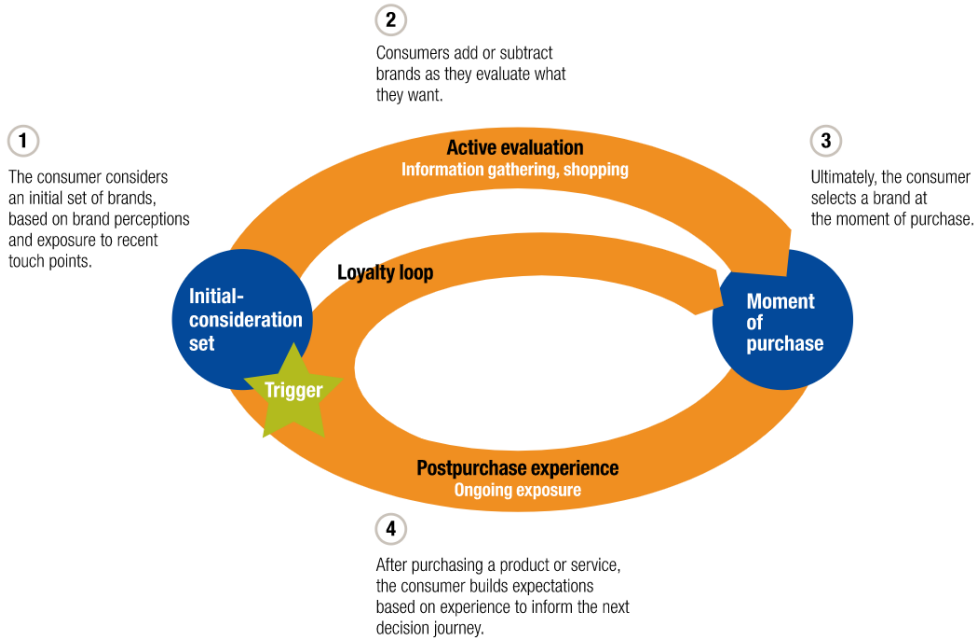
Traditionally, the five stages of the consumer buying decision process include: (1) problem recognition, (2) information search, (3) evaluation of alternatives, (4) purchase decision, and (5) post purchase behavior. “Consumers do not always pass through all five stages; they may skip or reverse some” (Kotler & Keller, 2016, p. 99).

Solomon, Bamossy, Askegaard, and Hogg. (2006) challenge the versatility of the traditional consumer buying decision process by claiming that it starts from the perspective of the rational customer, which is not strictly the case. They state that consumers can apply a variety of buying decision process strategies. Firstly, they evaluate the necessary effort to make their purchase decision, and then they apply the strategy best suitable for the effort needed. “When a well-thought-out rational approach is necessary, consumers invest the brainpower required for the decision. Otherwise, consumers look for shortcuts or fall back upon learned responses that ‘automate’ these choices” (Solomon, Bamossy, Askegaard, &

Hogg, 2006, p. 259). When we take over this theory and translate it into digital realm, we can take an example of an online shop. Research efforts on information organization are crucial in electronic marketplaces because users are regularly overburdened with information when making choices. (Solomon, Bamossy, Askegaard, & Hogg, 2006, p. 259). Consumers adapt their information acquisition based on the type of information and changes in the information structure. When the information structure is complicated, customers make fewer acquisitions, spend more time per acquisition, and are more discriminating in their information acquisition (Solomon, Bamossy, Askegaard, & Hogg, 2006, p. 259-260).

On the other hand, McKinsey & Company (2009) accepts the traditional buying decision process, yet they present it in differently. They argue that its original form is not sufficient for capturing all the touchpoints in today's digital customer journeys. They display the decision-making process as less linear and a more circular journey with four primary phases: initial consideration, active evaluation, closure, and post-purchase experience.

Figure 2. Circular decision-making process



Source: Court, Elzinga, Mulder, & Vetvik (2009).

Marketers have long held the practice of pushing marketing to customers at various phases of the decision-making process to influence their behavior and encourage them to the desired response. Consumer-driven marketing is becoming more crucial in today's decision process because consumers take charge of the process and willfully pull information that is relevant to them (Court, Elzinga, Mulder, & Vetvik., 2018). The availability of digital media has changed the consumer decision buying process over the years, and it transformed the other

consumer behavior terms. In the past, the customer's first impression about the product would be in person, through the television, or on the radio. Nowadays, companies turn to digital-first communication strategies solely because percentages of online transactions for their industry sectors rise every year. The channel that brings significant revenue demands marketing investments that will serve the audience through the channel they spend most of their time. With the expanding internet connectivity and digital literacy, the need for establishing a new theoretical structure was recognized by leading global companies.

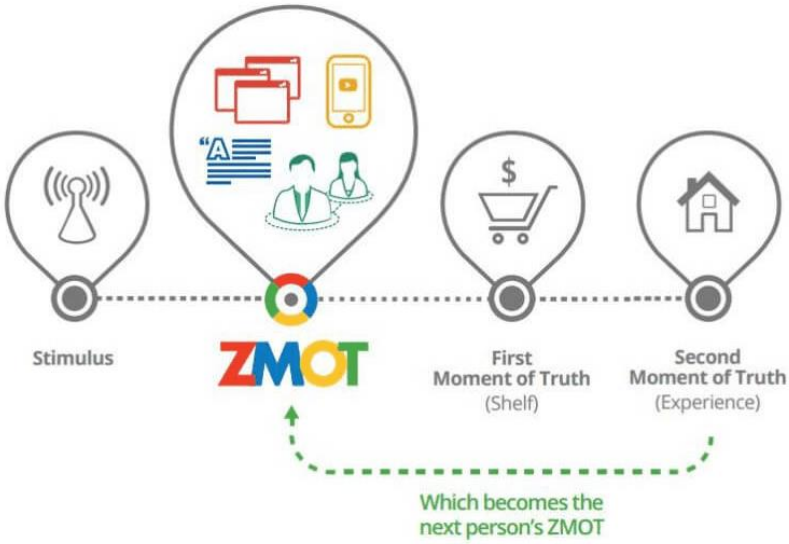
The moment of truth in marketing can be defined as the moment when a customer or a user interacts with a brand, product, or service to form or change an impression about that particular brand, product, or service (Chowdhary, 2016). Company Procter & Gamble established the 3-step model of marketing (Ertemel & Başçı, 2015). This traditional mental shopping model consisted of the stimulus, first moment of truth or the moment where a customer is confronted with the product in the store, later followed by the second moment of truth, when a customer experiences a product (Salem, 2016).

Figure 3. 3-step marketing model

Source: Ertemel & Başçı (2015)

Up to now, trends in consumer behavior have even more changed over time. Consumers are searching for and finally discovering better and more adequate ways to handle their problems and meet their requirements in an information-rich digital environment (Haller, Lee, & Cheung, 2020). Overall, the omnipresence of the Internet has modernized shopping habits (Viljoen, 2018). People search for the best options long before they make purchase decisions. Consequently, a critical new moment stands between stimulus and shelf experience. Lecinski, from Google (2011), coined the term called Zero Moment of Truth, placing it directly after the stimulus and before the first moment of truth. It refers to the information search conducted online about a product or service before seeing it in person or making a purchase.

Figure 4. ZMOT addition in the 3-step model of marketing.



Source: Lecinski (2011).

Lecinski (2011) mentions three reasons which led to consumers actively engaging in ZMOT, (1) to save money, (2) to save time, and (3) to find out how the product will improve their life. New ZMOT behavior of the customers comes with the following psychological influences: (1) the consumer is the leader of the buying process by pulling the information wanted from the Internet, (2) consumer wants to satisfy a need and has an emotional investment in finding the best product/service, (3) the conversation is multi-way with marketers, friends, strangers, websites, and experts (Viljoen, 2018).

When looking at existing and proven changes in the consumer's decision-making environment, we can explore how these changes will affect customer decision-making of the future. Human attention becomes a scarce resource, as well as time. Consumers pay less attention, they multitask daily and are under time pressure more than before, so they seek more convenience (Willman-Iivarinen, 2017; Stankevich, 2017). Technology made shopping more convenient however it made the customer journey more complicated due to endless opportunities and multiple social motives (Willman-Iivarinen 2017; Mican & Sitar-Taut, 2020). Therefore, the correct ratio between easy and accurate decision-making will be more relevant (Willman-Iivarinen, 2017). The mentioned changes in consumer decision-making processes contributed to the growing phenomenon of outsourcing decision-making (Häubl & Trifts, 2000; Punj, 2012; Willman-Iivarinen, 2017). Online businesses are now attempting to assist visitors by giving additional assistance in the decision-making process, such as lists of the most popular things, items that match or are related to the viewed product, chatbots, or customer service (video) chatting. Changes in consumer behavior in the purchasing decision process will require new marketing activities from businesses, including increased investments in their websites and a renewed dedication to customer satisfaction (Viljoen, 2018; McKinsey & Company, 2021).

To satisfy the need for ongoing online consumer behavior insights, this research will try to get a perspective on the online purchase intention by combining an unusual research method, screencasting videography, with commonly compared segments, men and women.

3.2 Terminology of eCommerce and website design

It is very important to define the difference between the user interface and user experience. A user interface is a place where interactions between humans and machines occur. It allows users to effectively operate a machine to complete a task or achieve a specific goal, like making a purchase or downloading an app (Babich, 2019). In the 90s, Don Norman from Apple defined user experience, as the experience that a person has as they interact with a product (Babich, 2019).

ECommerce refers to business communication and transactions over networks and through computers. As most restrictively defined, electronic commerce is the buying and selling of goods and services through digital communications (Bloomenthal, 2021). It can be defined as the exchange of goods or services through electronic transactions conducted via the Internet. The term covers the ordering of goods and services, which are sent over computer networks, but the payment and the ultimate delivery of the goods or service may be conducted either online or offline (Eurostat, 2019). Mobile commerce, also known as mCommerce, is the use of wireless handheld devices like cellphones and tablets to conduct transactions online, including the purchase and sale of products, online banking, and paying bills (Investopedia, 2019). Definitions describing eCommerce vocabulary, as well as terms defining website parts that make up the navigation of a website and architecture of a product page, will be included in this study. After explaining eCommerce, relevant material includes defining some of the main terms in website design and analytics.

A product page is a page on an e-commerce website that presents a specific product to customers. It helps to inform about the product and decide whether and what to buy. It includes different specifications and features to help answer questions, provide reviews, allow product comparison, and simplify the buying process, depending on the product (Keenan, 2020). This research will deal with components that make every major online fashion retailer's product page user interface.

The first and most vital feature for each product page is product photos, which are without a doubt one of the most important factors. They make the first impression on customers and present the product directly to them. Since product photos are crucial in the fashion industry, merchants differ in how they visually show products to customers. It is all about the balance between the brand image the e-retailer wants to establish and the available budget, whether it is through digital or real-life models, which postures do models assume, whether to use models at all or just use product photographs. In this research, actions that include product image clicks will be specifically clicking on one product photo to see it in full-screen mode

or zooming in on one of the images to see a detail or part of the product. Product image click does not include scrolling through images or clicking on color variation images of the same product.

Another element that helps to inform customers is product ratings and reviews. The product rating system stands for customers expressing feedback through numbers, while the product review system allows customers to give feedback by writing their own opinion in a text form. Product reviews are displayed as they are written (Gocheva, 2017). The next element significant for every fashion retail online shop is a product size guide which is often a chart that can be accessed with a click and contains the measurements for size ranges within a given brand. It is described by four main measurements, bust, waist, hip, and height, but it varies depending on the product. Some retailers (e.g., Asos, AboutYou) choose to take it to another level by making it interactive (Smith, 2020), while others (e.g. BestSecret) choose to exclude this information from their product pages since they offer a very big range of different brands. Interactive sizing allows retailers to collect more data about customers and gain more interactions on their site. It also makes defining the size livelier for the customers.

Actions regarding specific products that can be taken on the product page and will be of particular interest for this research are add-to-cart and add-to-wishlist. The add-to-cart button is a feature of eCommerce stores that allows customers to choose items to purchase without completing the payment. It saves products in the virtual cart and postpones the purchase to be able to continue the shopping. It functions as the digital equivalent of a shopping cart in a brick-and-mortar store (Recharge, 2021). Both add-to-cart and add-to-wishlist are containers of items that a user wishes to buy. For an online retailer, they present a set of information valid for using a remarketing technique. The wishlist is permanent, while the cart is temporary. Items can be added to the wishlist, which might be out of stock as well, however, with cart, this is not possible. While adding items to the wishlist, quantity does not need to be specified, yet for the same in the cart, it does. Wishlists can be used to notify availability to corresponding customers (Sanvatsarkar, 2020).

The filtering option is an active element that allows website visitors to customize the preview of products by narrowing them based on their wanted product categories and desired product features (e.g. product type, color, size, brand, price, etc.). Categories group individual pages based on a similar subject or theme (BigCommerce, 2021). The delivery and return policy are two separate activities, yet often written together. It is a static textual element of a user interface. Return policies are the rules retailers establish to manage the process by which customers return or exchange merchandise they have purchased previously (Sutton, 2020). A delivery policy is a written statement that outlines a company's delivery practices. A delivery policy addresses facts, such as estimated delivery range, shipping costs, delivery locations, and possible delivery methods (Termly, 2021).

In this research, overall search duration will refer to the time the participants will take to choose the desired product, in other words, the time they will need to fulfill the given task of the research. In commonly used Google Analytics software, there are numerous details

that retailers can track about their web page visitors. Before explaining them, it is relevant to understand the term of the session in online analytics. A session is a group of user interactions with a website that occurs within a given timeframe. It refers to the period a user is active on a site or an app. For example, a single session can contain multiple page views, events, social interactions, and eCommerce transactions (Google, n.d.). Google Analytics allows retailers to measure the average length of sessions on their website (*Average Session Duration*) (Albright, 2021). Online retailers can also track the number of sessions that used their site's search function at least once (*Sessions with Search)*, the total number of times their site search was used (*Total Unique Searches*), or even the number of searches made immediately before leaving the site (*Search Exits*) and so on (Google, n.d.). The latter metrics track data about the on-site search, which is the functionality that enables users to search a given website's content and is also considered as an element in this research (Ormazabal, 2019). Online retailers have the possibility of using session replay software (e.g. Hotjar), which enables them to record and playback user sessions to better understand the users' experiences (Graham, n.d.).

This exhaustive analytical data does not provide the context behind the overall complexity of the online customer journey. Custom reports allow segmentation on a gender basis, yet online retailers do not have insights into the whole dynamics of the customer journeys. In other words, even with the help of online analytics, retailers do not know how many websites and products a visitor checked out before, after, or during visiting their site. Online analytics also does not provide the reasoning behind the digital touchpoints. For example, the analytical software shows that a visitor left the site within the first minute of visiting, which site the visitor left from, and what were the visitor's interactions, device, time on page, etc. However, it does not show that the visitor could not find the desired filtering option and moved to another online retailer's site. It is crucial to recognize that many users employ an ad-blocking service, which stops analytical software from collecting data on them at all. Therefore, making decisions based only on online analytics could lead to underperforming results. The latter establishes an opportunity for screencasting to step in and document dynamical online experiences and activities, rather than static representations of online interactions that leave a numerical trail in analytical tools (Kawaf, 2019).

After a theoretical review regarding the main concepts this thesis will deal with, the following chapter is devoted to the practical research part. It will add to the existing practice – by using an alternative method and digging deeper into the customers' online information search and apparel purchase intention. Information searches that result in interactions are defined by website architecture and the user's experience of a user interface. As a result, they can predict the likelihood of making an online purchase. Variables mentioned in the research questions in the next chapter will explore the concept of online fashion clothing purchase intention and be compared by a descriptive nominal variable of gender.

4 METHODOLOGY

To provide insights particular to the fashion eCommerce segment and its unique or unexpected events, interpret the participants' informational preferences and purchase intentions, and consequently, provide descriptions of differences among male and female Millennials' fashion eCommerce complex online journeys, this thesis will use a qualitative approach, following the guidelines by Kawaf (2019) regarding screencasting videography practice.

Prior screen recorded research focused on assessing data in both quantitative and qualitative ways. The quantitative approach to data analysis of screen recordings was used by Anesbury, Nenycz-Thiel, Dawes, and Kennedy (2015) in an observational study about online grocery shopping. Vuong (2017) et al. used a combination of quantitative and qualitative data analysis. Screenrecording data was processed qualitatively by Kawaf (2019) to map the online fashion shopping experience, and by Shevchenko, Kuhlmann, and Reips (2021) to find critical usability issues, and possible improvements in the user experience of their newly developed application.

4.1 Purpose and goals

To capture the differences between male and female fashion information search behavior, and customer journeys on real e-commerce websites, the screencasting videography method is suitable for the dynamic form of the online environment. Screen recording provides valuable insights into navigations, failed or successful interactions, and behaviors, which may not be captured by a traditional research approach (Kawaf, 2019).

The three main goals of this thesis are the following: (1) to identify how European Millennials, in terms of gender, differ in online fashion information search while browsing for the desired fashion product, (2) to use screen recording methodology which allows for the direct detailed observation of dynamical online consumer touchpoints on real-life websites and participants' own devices, that are hard to capture in conventional research methods, and (3) to reveal how e-commerce fashion companies can better leverage the gender data on female and male users, to offer the best user experience and enhance purchase intention.

From a customer perspective, finding gender-related information search patterns on e-commerce fashion websites creates an opportunity for a tailor-made, seamless online shopping experience based on gender. From a managerial perspective, translating the gender-related pattern findings into website updates and customization guidelines potentiates excellent customer experience, boosts customer satisfaction, and consequently, enhances customer purchase intention. In the long-run, this improves retailers' conversion

rates and highlights them among the competition by offering a simplified shopping experience.

4.2 Research design and data collection

The design of this research followed guidelines by Kawaf (2019) and her article from the International Journal of Research in Marketing.

Context of the study

This research study screen recorded online interactions or touchpoints that European Millennials take on a personal computer when given a task to find a suitable product from a fashion product category to purchase. It observed the differences between the male and female segments to propose better leveraging of the gender data to eCommerce fashion companies.

Intervention level

Potential customers got a task to fulfill, and they used eCommerce websites and browsers of their choice, yet for the same product assigned for all participants. To capture the real-life experience, participants were not restricted to specific websites or browsers.

Timeframe

Since the research focus did not include a particular seasonal event or timeframe but observation of gender differences in purchase intentions, participants were not imposed with a time limit. After they received an invitation to be a part of the research, they could choose their time slot of performing the given task. Time slots were not predefined or imposed, but arranged spontaneously.

Software choice and its obtrusiveness

The observation included participants' information gathering process and their usage of e-commerce website features, which was captured by TeamViewer. This software package is free of charge, simple to install, and can connect to participants' devices and record the screen simultaneously. The signalization of another device connected to their personal computer was visible to the participants, yet it is not pervasive and takes a small part of their screen. The participants could choose whether to hide the dialogue window of the software connected to their device. Confidentiality and data privacy were guaranteed.

Mode of screencasting

The point was to recreate a familiar shopping environment for participants to generate a more naturalistic approach. The study was remote and enabled the sample to consist of different nationalities and places of living. Participants accepted the recording of their complete screen. During the task, their faces were not video recorded, to reduce the feeling

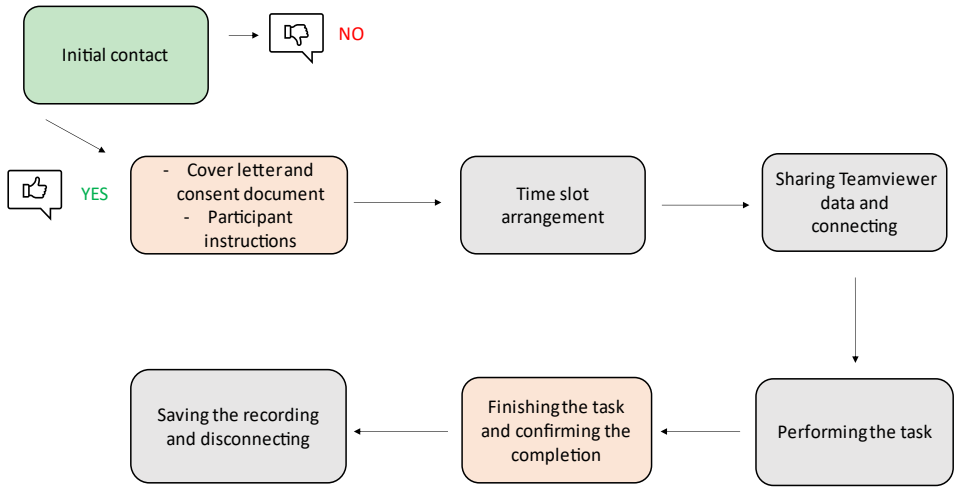
of being watched. Even though all the participants accepted the voice recording, they did not loudly comment on their actions, so the voice recordings were not used or analyzed in the research process.

Ethical and software concerns

To tackle the ethical and privacy concerns, participants had received a cover letter and consent document to sign (Appendix 2). The cover letter declared that there were no right or wrong answers and only their online behavior is essential as the data source for the study. All information participants had provided was used anonymously, and their identity was not revealed at any point. The screen recordings of their customer journeys were treated in the strictest confidence. To overcome participants' fear of the task complexity, an easy-to-follow presentation containing screenshots was created to take the role of participant instructions (Appendix 3). It was sent to participants together with the cover letter and consent document.

After the participants installed the software and read the instructions, according to their preferences, they arranged a time slot for the task. For any additional help and arrangements, participants received contact data in the instructions where they could ask questions and get instant replies. After the participants completed the task, they were asked to write a message first to signalize they had finished their journey. This step ensured the end of the recording and proper saving of the data. After saving the screencast, the connection was instantly canceled, and TeamViewer disconnected from their device. After all the screencasts were recorded and saved (N=14), they resulted in 3 hours, 4 minutes, and 28 seconds of screen material, with an average duration of 11 minutes and 17 seconds per recording.

Figure 5. Data collection process



Source: own work.

In videography studies, the subject of invasiveness has been actively addressed (Kawaf, 2019, Legewie & Nassauer, 2018, Krieter, 2020). Since the research design applied in this thesis is new, the challenging recruitment procedure can present an obstacle for this type of research to be practiced in the future. To contribute to expanding screen casting videography usage in digital marketing research, after the participants had completed the task, they were asked about their attitudes and opinions regarding their participation in the study. They were asked two open-type questions, without any obligation to answer. The questions were the following: (1) Did you find the research process complicated? and (2) When you compare the demandingness of this method to survey-based research, how would you describe it?

All the participants chose to share their opinions and answered in a positive tone. None of them found the research process complicated, and when compared to filling out surveys, they did not find the screencasting videography demanding. Some of the citations include:

"…For me this is less demanding because I do what I normally do, and I don't have to think about what I will answer…".

"I found it fast and efficient, even though my internet connection broke, but that has nothing to do with choosing a product. I think this is faster and more efficient, if it gives you the data you need in the end".

"...When compared to surveys, for me this was much better, more fun, interactive and appreciative…"

Participants' answers were pleasantly surprising, and they encouraged the further feasibility of using this method for digital research purposes from the participant perspective - not just for website usability purposes, but for observing online customer behavior and preferences.

4.3 Sample characteristics

Being aware of the different perceptions of Millennial males' and females' online shopping information preferences is particularly important for providing personalization and recommendation components that are among the main benefits for customers in the fashion clothing segment (Statista, 2021). In addition, according to Thomas (2020), amid the pandemic, Millennials are changing their shopping behavior more than any other generation. As Millennials are currently between 25 and 40 years old, they are in different phases of their life. Some are young adults presently entering the labor market; others are already present in the workforce; some have already established families. They were chosen to be the target group of this research to step away from the repeated practice of conducting online customer behavior research that engages students as the participants (Sohail, 2020). This master thesis uses an alternative approach to primary data collection; thus, the sample size was benchmarked by previous studies with a similar methodological approach. Vuong, Jacucci, and Ruotsalo (2017) monitored the digital activity of 10 participants with the

purpose of task recognition, where screenrecording software recorded all information presented to participants. Krieter (2019) worked with 9 participants for four months to estimate students' learning management software online time by combining their log files and screen recordings. To apply screencasting videography to understand digital experiences, Kawaf (2019) analyzed ten screen recordings of online customer journeys. Shevchenko, Kuhlmann, and Reips (2021) conducted a usability study for a newly developed application on 7 participants by organizing two waves of screen recording.

The sample in this research is a convenience, non-probability sample containing 14 participants, with genders equally distributed. The actual birth years varied between 1983 and 1995 for the seven female participants, and between 1986 and 1995 for the seven male participants. Participants had higher educational status in 93% of the cases (bachelor's degree or higher). Since the focus was on European Millennials, this sample tried to acquire participants of different nationalities and places of residence. The dataset covered the nationalities of the following countries: Croatia, Bosnia and Herzegovina, Italy, Denmark, Germany. The participants' places of residence included the following countries: Croatia, Serbia, Italy, Denmark, Germany, Austria, Belgium, and the Netherlands.

4.4 Research questions

Considering earlier gender-related research and the problem description, research questions about online user behavior were established, explicitly highlighting the frequency of fashion website and product page features usage, clearly stating the assumption of differences between male and female users.

Women and men evaluate different attributes and benefits before purchasing. The impact of gender characteristics on online shopping behavior was confirmed in previous studies. Kim, Lehto, and Morrison (2007) explored gender differences in online travel information search and stated that women are more involved in online and offline search habits. In comparison to male participants, females are more likely to have favorable attitudes towards different types of website functionalities and scope of contents. Investigations of purchases reveal that women generally prefer to shop at a relaxed pace, compare items and prices, try things on, and examine merchandising, and they make more buying decisions than men. Furthermore, women seek to satisfy long-term needs and judge a shopping experience in hedonic terms, rather than as a tool for satisfying immediate needs (Kraft & Weber, 2012).

Therefore, the first set of research questions, from RQ1 to RQ11, explores the online journey and relates to the established goal (1) comparing how male and female Millennials differ in online search behaviors, which lead to purchasing intentions on fashion websites, and goal (2) using the screencasting videography method to grasp and understand these differences in online search behavior.

RQ1: Will female users have a longer overall search duration to select an item than male users?

RQ2: Will female users view more product pages in complete online fashion information search than male users?

Men, instead, are selective information processors and tend not to process all the available information when making a judgment (Gonzalez, Meyer & Toldos, 2020). Ganguly, Dash, Cyr, & Head (2010) noted that male customers require online stores to present information logically to facilitate their quick decisions, this is consistent with Pradeep (2010) who states that men value efficiency and simplified short-time shopping processes. To influence their purchase intentions via their attitudes, Lin, Featherman, Brooks, and Hajli (2018) state that men are more affected by the interactivity of a website than women. Moreover, according to Richard, Chebat, Yang, and Putrevu, (2010), men choose an online environment that is both practical and efficient, with simple access to product information and simplified order placement.

RQ3: Will female users use filtering options less often than male users?

RQ4: Will female users use the on-site search option less often than male users?

In a survey about gender-specific online shopping preferences, women considered return labels, correct sizing information, and quick-loading pages as the most crucial features of an online retailer (Ulbrich, Christensen & Stankus, 2010). In their observational study about contextual product displays influencing women's online shopping behavior, Gonzalez, Meyer & Toldos (2020) stated that men and women differ in online product displaying preferences, due to higher emotional value perceptions for female shoppers. Women are more likely to develop purchase intentions when they are exposed to a rich contextual background (Gonzalez, Meyer & Toldos, 2020). Oghazi, Karlsson, Hellström, Mostaghel, and Sattari (2020) indicate that women report higher levels of purchase intentions with increasing reputation levels. An eye-tracking online behavior study by Tupikovskaja-Omovie and Tyler (2020) concluded that, in most cases, women placed more attention on product reviews than men.

RQ5: Will female users check delivery and return policy options less often than male users?

RQ6: Will female users check product ratings less often than male users?

RQ7: Will female users check product reviews more often than male users?

RQ8: Will female users check the product size guide more often than male users?

RQ9: Will female users use the add-to-cart option less often than male users?

RQ10: Will female users use the add-to-wishlist option more often than male users?

RQ11: Will female users click on more product images than male users?

To apply the established questions in practice, and use the explored topics to provide the managerial implications, we state the following final set of questions, which relate to the established goal (3) of this research, that relates to better leveraging of the gender data on female and male users, to offer the best user experience and enhance purchase intention:

RQ12: Can we find patterns and map online fashion website interactions according to gender?

RQ13: Can we customize fashion eCommerce websites according to mapped interactions based on gender?

The content below deals with suitable methods to answer the established questions and the analysis of the screen recording materials.

4.5 Data transcription and descriptive statistics

After recording and saving the screencasts, the result was 3 hours, 4 minutes, and 28 seconds of screen material (of which 2 hours 28 minutes, and 28 seconds were analyzed manually).

The screencasting data was obtained in a period of three weeks. Established research questions contained quantitative variables, which were manually counted by watching and re-watching the screencasting material. The following chapter will consist of illustrations and explanations of the dataset, to visualize the data and the differences in the values. Due to the limited sample size, this research concentrated on a qualitative approach to data analysis.

The data was transcribed into an MS Office Excel file. The counted values can be observed in Table 4.

Table 4. Transcripted values of variables.

PARTICIPANTS - FEMALE	Year of birth	Overall search duration (min)	Product page views (no.)	Filtering option usage (yes/no)	Filters used (no.)	On-site search usage (yes/no)	Delivery & return policy click (yes/no)	Product ratings checking (yes/no)	Product review checking (yes/no)	Product size guide click (yes/no)	Product images clicked (no.)
Woman 1	1983	0:04:30	4,00	YES	2,00	YES	NO	NO	NO	NO	0,00
Woman 2	1995	0:15:11	15,00	NO	0,00	NO	NO	NO	NO	NO	1,00
Woman 3	1989	0:10:40	6,00	YES	3,00	YES	NO	NO	NO	NO	1,00
Woman 4	1994	0:04:55	2,00	YES	2,00	YES	NO	NO	NO	NO	1,00
Woman 5	1994	0:33:24	15,00	YES	3,00	YES	NO	NO	NO	NO	9,00
Woman 6	1989	0:05:28	5,00	YES	1,00	NO	NO	NO	NO	NO	0,00
Woman 7	1995	0:11:33	5,00	YES	1,00	YES	YES	YES	YES	YES	2,00
PARTICIPANTS - MALE	Year of birth	Overall search duration (min)	Product page views (no.)	Filtering option usage (yes/no)	Filters used (no.)	On-site search usage (yes/no)	Delivery & return policy click (yes/no)	Product ratings checking (yes/no)	Product review checking (yes/no)	Product size guide click (yes/no)	Product images clicked (no.)
Man 1	1994	0:03:49	3,00	YES	1,00	YES	NO	NO	NO	YES	0,00
Man 2	1991	0:03:28	4,00	YES	1,00	NO	NO	NO	NO	NO	0,00
Man 3	1986	0:03:09	1,00	NO	0,00	YES	NO	NO	NO	YES	0,00
Man 4	1995	0:08:35	2,00	NO	0,00	NO	NO	NO	NO	NO	0,00
Man 5	1993	0:21:45	8,00	YES	3,00	NO	NO	NO	NO	NO	4,00
Man 6	1995	0:09:28	5,00	NO	0,00	YES	YES	NO	YES	NO	0,00
Man 7	1992	0:12:33	10,00	NO	0,00	YES	NO	YES	YES	NO	4,00

Source: own work.

The calculation of descriptive statistics made it possible to observe some differences among gender groups. The calculated values of descriptive statistics can be seen in Table 4 and Figure 6 below. Since the sample size was small for statistical tests to yield significant results, the focus was on the qualitative research methodology.

Table 5. Descriptive statistics

PARTICIPANTS - WOMEN	Overall search duration (s)	No. of product page views	No. of filters used	No. of product images clicked
Mean	734,42	7,42	1,71	2
St. Dev.	564,11	4,92	1,03	2,92
Min	270	2	0	0
Max	2004	15	3	9
PARTICIPANTS - MEN	Overall search duration (s)	No. of product page views	No. of filters used	No. of product images clicked
Mean	538,14	5	0,71	1,14
St. Dev.	370,73	3,50	1,03	1,80
Min	189	1	0	0
Max	1305	11	3	4

Source: own work.

Figure 6. Descriptive statistics

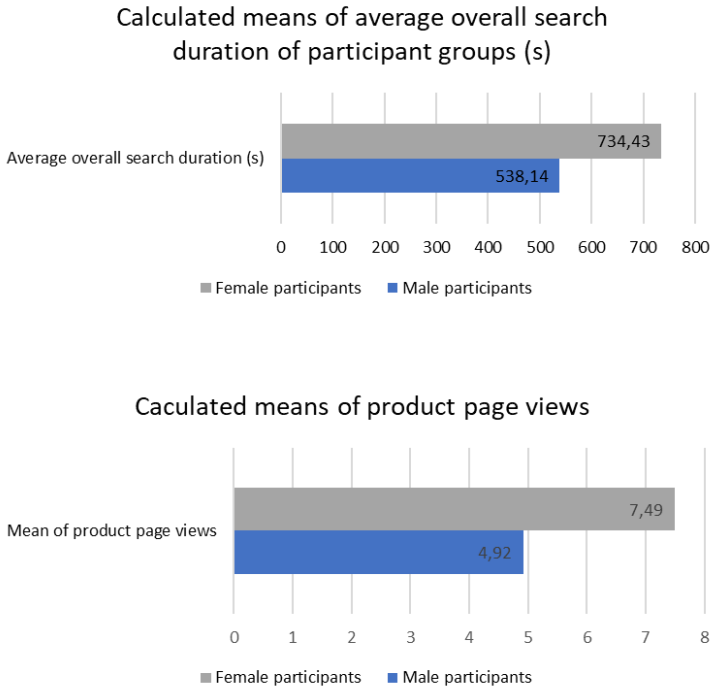
		Valid	Missing	Mean	Std. Deviation	Minimum	Maximum
Filtering option usage	Man	7	0	0.429	0.535	0.000	1.000
Filtering option usage	Woman	7	0	0.857	0.378	0.000	1.000
On-site search usage	Man	7	0	0.571	0.535	0.000	1.000
On-site search usage	Woman	7	0	0.714	0.488	0.000	1.000
Product ratings checking	Man	7	0	0.143	0.378	0.000	1.000
Product ratings checking	Woman	7	0	0.143	0.378	0.000	1.000
Product review checking	Man	7	0	0.286	0.488	0.000	1.000
Product review checking	Woman	7	0	0.143	0.378	0.000	1.000
Product size guide click	Man	7	0	0.286	0.488	0.000	1.000
Product size guide click	Woman	7	0	0.143	0.378	0.000	1.000
Delivery & return policy click	Man	7	0	0.143	0.378	0.000	1.000
Delivery & return policy click	Woman	7	0	0.143	0.378	0.000	1.000

Source: own work.

Table 4 and Figure 6 above consist of variables, sorted by gender groups and calculated values of mean, standard deviation, minimum and maximum values. None of the values were missing. Descriptive statistics values for variables overall search duration (in seconds), number of product images clicked, number of filters used, and number of product page views were calculated in MS Excel. Descriptive statistics for variables filtering usage, on-site search usage, product image clicking, product ratings/reviews clicking, product size guide clicking, and delivery and return policy clicking were calculated with the help of free statistical software JASP, similar to SPSS. The coding principle was as follows: if a participant used an on-site search, the numerical value was 1, and if not, the assigned value was 0. The same coding principle was used for all further variables. Repetition of the same action taken by the same participant was not counted, since it was considered in the qualitative part of the data analysis. For example, if a participant used the size and color filter on each of the three visited websites, the assigned values were 1 for the filter usage, and 2 for the number of filters used.

Search duration (in seconds) and product page view means, which refer to the first set of research questions, can be observed in Figure 7. When recalculated to minutes, women, on average, spent more time searching for a fashion product, 12.24 minutes, while men, on average, spent 8.97 minutes. According to average values, female participants viewed more product pages when searching for a fashion product online.

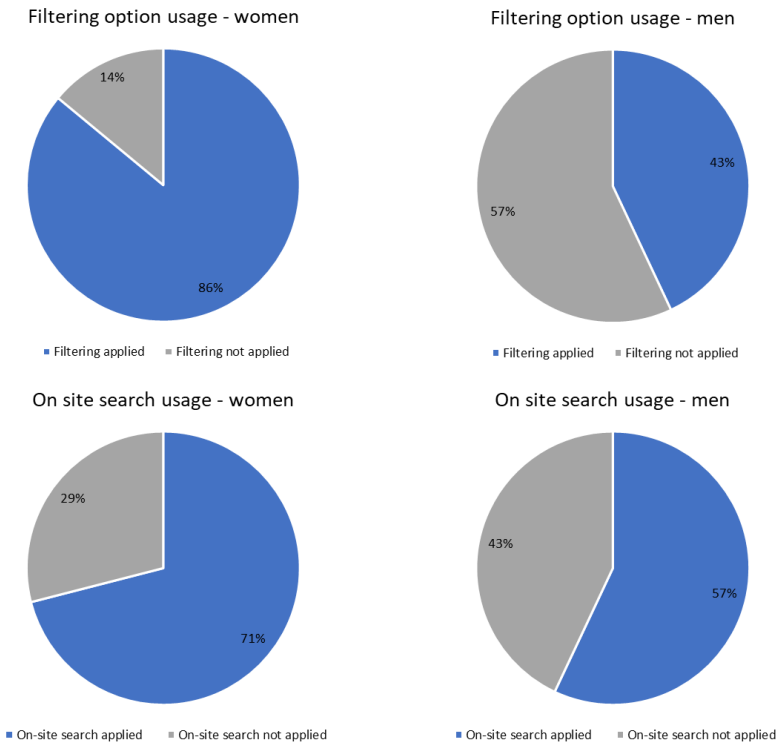
Figure 7. Overall search duration (s) and product page view means for female and male participant groups



Source: own work.

Filtering and on-site search usage can be observed in Figure 8 and refer to the second set of established research questions, which look into gender-specific preferences for on-site navigation. We can notice that the female group of participants was less hesitant in applying filters and using on-site search. Among the two navigational actions, women used filtering more often, while men used on-site search more often.

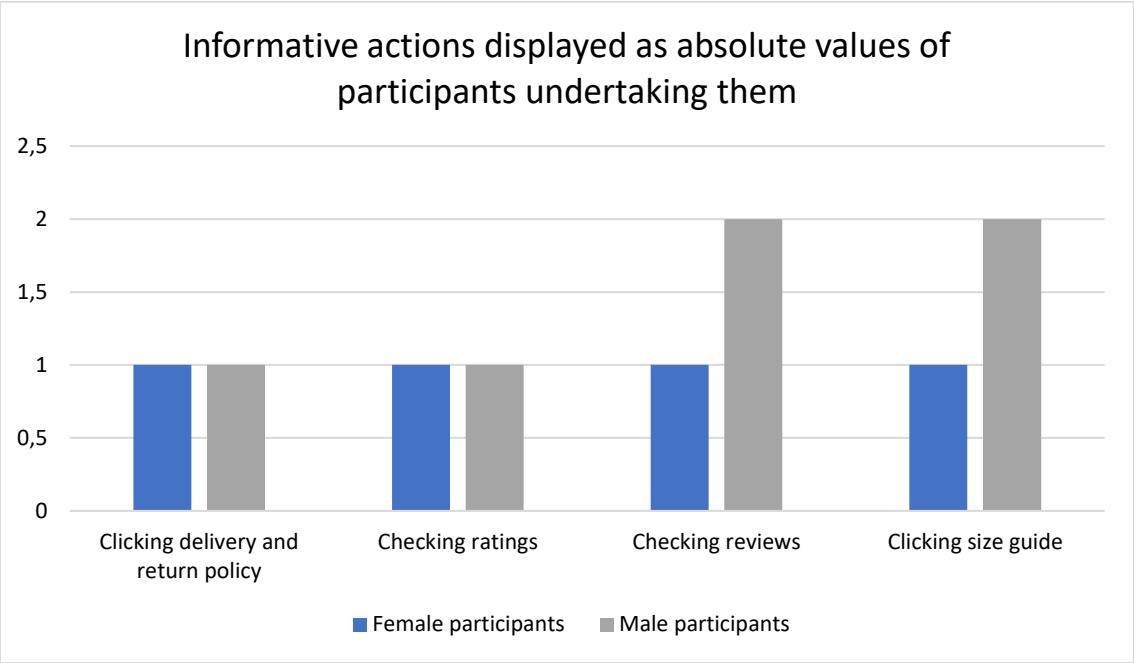
Figure 8. Usage of filtering and on-site search displayed as shares of male and female participants



Source: own work.

Absolute values of participants who clicked on delivery and return policy or size guide, and checked ratings or reviews, can be observed in Figure 9. Those values refer to the third set of research questions, which explore gender-specific fashion eCommerce informational preferences and purchase intention touchpoints. We can observe gender similarities in delivery and return policy clicks, and rating checking. Differences can be noticed in review checking, and size guide clicks.

Figure 9. Absolute values of participants taking informative actions.



Source: own work.

Participants visited the pages they had already ordered from because they had the freedom to choose their websites from the start. They also predominantly chose products from the brands whose sizing they were already familiar with from previous purchases. Therefore, a limited number of participants checked the delivery and return policy, and sizing information. Also, the participants knew from the instructions that they do not have to process the payment, so the product will not be shipped. Thus, RQ5 and RQ8 could be explored differently, by imposing an online store to the participants, one they are unfamiliar with, and enabling them to conclude the purchase. Then it would be possible to observe the behavior more accurately and conclude the outcome for RQ5 and RQ8. As mentioned in the conceptual framework, product ratings refer to customers giving feedback through numbers, while product reviews give customer opinions in the shape of textual entry. What was not anticipated before establishing the research questions is that participants will regularly check product ratings and reviews on websites that display those options together. Thus, when the participants checked reviews, ratings were displayed too, and it was counted as they checked both.

During the data collection of the research process, RQ9 and RQ10 did not yield enough variance to be answered. Add-to-cart and add-to-wishlist actions were imagined as ending incidents which participants will be able to choose. Due to the primacy effect or mentioning the add-to-cart option as the first in the participant instructions, 100% of the participants chose the add-to-cart option to be their ending incident.

As aforementioned in chapter 3.2., actions that were product image clicks included specifically clicking on one product photo to see it in full-screen mode or zooming in on one of the images to see a detail or particular part of the product. The mean of product image clicks for female participants was equal to 2,00 and for the male participants, it was equal to 1,14.

Nevertheless, transcripted values of variables turned out to provide a valuable overview. In the case of bigger sample size, the proposed tests would be (1) an independent samples t-test for the variables of overall search duration (in seconds), number of product images clicked, number of filters used, and number of product page views; (2) a chi-square test for the filtering usage, on-site search usage, product images clicking, product ratings/reviews clicking.

4.6 Qualitative research methodology

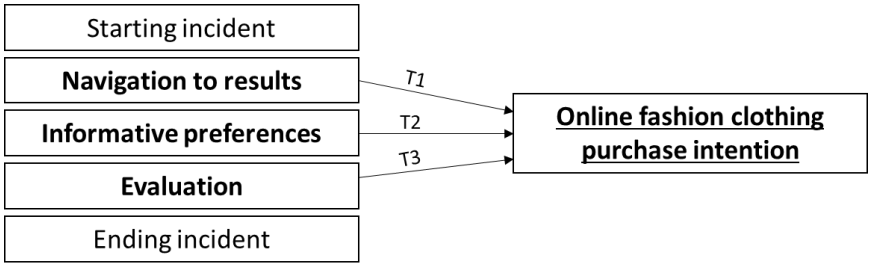
This master's thesis focused on the qualitative approach to data analysis, accompanying the ambition of offering greater clarity into the used method by utilizing the multimodal data that screencasting provides while staying consistent with the inspected sources (Kawaf, 2019; Shevchenko, Kuhlmann, & Reips, 2021). This data analysis method is related to the goals (1) and (2), which address gender differences in online fashion information search and observation of predefined parts of user activity. It also addresses the established goal (3), how eCommerce fashion companies could better leverage the gender data on female and male visitors to provide the best user experience.

4.6.1 Content analysis of screen recordings

The collected screencasts were analyzed using content analysis to utilize the screencasting data and present the results conclusively. By watching and re-watching the collected screen recordings, actions and pathways for every participant were drawn, to display their individual online customer journey map (Appendix 5).

Afterward, by identifying all critical touchpoints and studying the connective and transitional states between individual customer journey maps, actions and pathways within the experiences were first coded into themes, that displayed online customer journey phases related to the exploring of consumer online fashion clothing purchase intention. Themes that generated enough variance were compared between the gender segments and used to conclude the gender differences in their online fashion clothing purchase intentions.

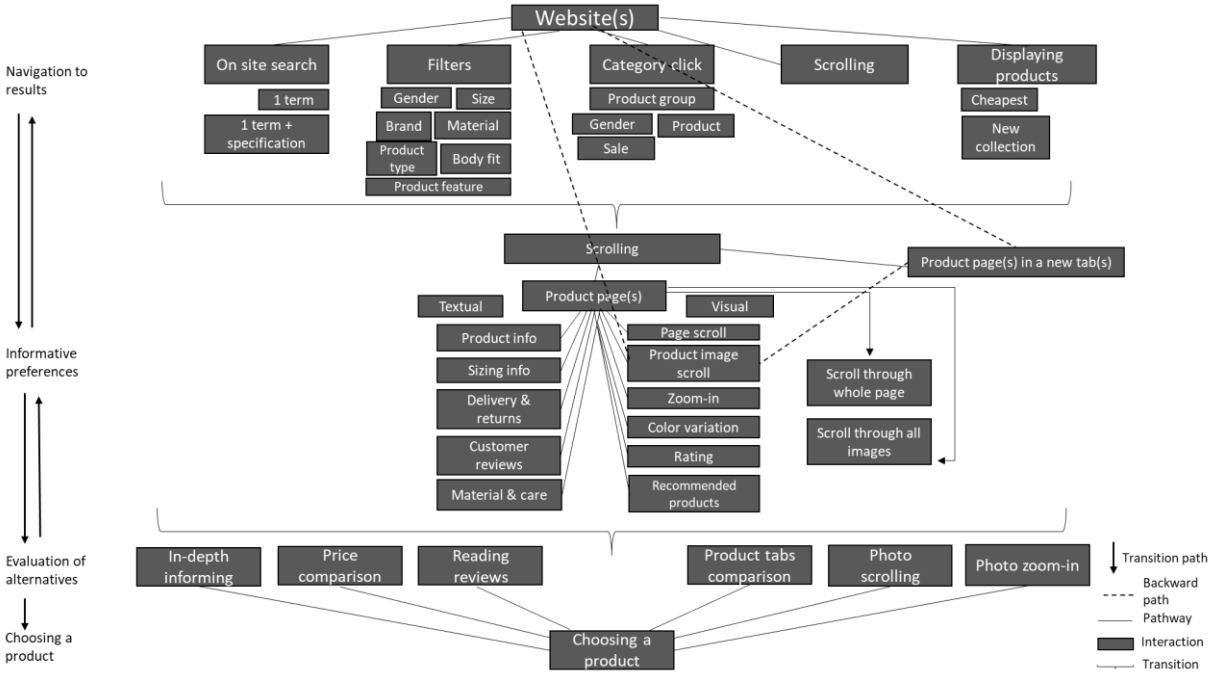
Figure 10. Themes for interpreting online fashion clothing purchase intention



Source: own work.

By studying and comparing all the drawn online customer journey maps, one main map was created to provide an overview of all possible actions and pathways of all the online journeys together (Figure 11). Customer journey maps segmented in gender groups were compared to this main map to provide an insight into actions and pathways that displayed patterns. The insights found from customer interaction maps and their established themes served as a base for suggesting managerial implications regarding fashion e-commerce content customization, focusing on navigational features on e-commerce websites and information presentation on product pages.

Figure 11. Online fashion customer journey map



Source: own work.

4.6.2 Results of qualitative research

Content analysis of fourteen customer journey maps generated results that display differences between female and male online fashion information preferences. On the other hand, both men and women also displayed similarities in their journeys. In the following section, the results of the qualitative research will be presented, firstly as answers to established research questions compared to previously inspected literature, secondly as observed gender-based patterns that refer to the established themes of content analysis, and finally, as drawn customer journey maps for male and female Millennial participants of this research.

When it comes to analyzing screencasts and creating customer journey maps, it is critical to watch and re-watch material with a specific focus in mind to spot and draw comprehensive pathways and interactions. This type of work requires predetermined spotlights. In this case, the spotlights were put on the scope and complexity of the overall online passed customer journey, ordering of the elements within the online journey, navigation to the product pages and on the product pages, and particular interactions taken which led to connective and transitional states among phases within the online customer journey. Patterns in male and female online customer behavior were described, based on existing themes that represent male and female online fashion purchase intention, after comparing the individual customer journey maps based on the spotlights.

Answers to the research questions that relate to the established goal (1), which explores differences in male and female Millennials' online fashion search patterns and goal (2), which deals with using screencasting videography to comprehend these patterns, are the following:

RQ1: Will female users have a longer overall search duration to select an item than male users?

Female participants spent more time in their online fashion customer journeys than male participants, as confirmed in descriptive statistics. Women also had more complex customer journeys in choosing an online fashion product than men. In line with Kim, Lehto, and Morrison (2007) and Kraft and Weber (2012), female participants had favorable attitudes toward the website's scope of contents, and to Meyers-Levy and Loken (2015), men conducted a more simplified search process when shopping.

RQ2: Will female users view more product pages in complete online fashion information search than male users?

Female participants accessed more websites and product pages during their consumer journeys, as affirmed by descriptive statistics. It was again possible to note the consistency of Kim, Lehto, and Morrison (2007) and Kraft and Weber (2012) that female participants had favorable attitudes toward the website's scope of the content.

RQ3: Will female users use filtering options less often than male users?

Female participants used filtering options significantly more than male participants in their online fashion customer journeys, as confirmed by descriptive statistics. Also, the female group of participants used more various filters in their customer journeys than the male group of participants. Contrary to Lin, Featherman, Brooks, and Hajli (2018), women were more affected by the interactivity of a website than men were.

RQ4: Will female users use the on-site search option less often than male users?

Female participants used on-site search less than male participants, as presented in Figure 8. In addition, male participants' search inquiries on fashion websites were more precise. These findings relate to Richard, Chebat, Yang, and Putrevu (2010), who state that men appreciate simple access to product information.

RQ5: Will female users check delivery and return policy options less often than male users?

Both female and male participants checked delivery information equally often, as seen in Figure 9. They did it in the same phases of their online fashion customer journeys. To an extent, this corresponds to Wang and Kim (2017) stating that the efficiency dimension of e-service quality is of the same importance for male and female customers.

RQ6: Will female users check product ratings less often than male users?

Both female and male participants viewed product ratings equally often (Figure 9), yet they did it in the different phases of their online fashion customer journeys.

RQ7: Will female users check product reviews more often than male users?

Female participants checked product reviews less often than male participants, as shown in Table 4 with descriptive statistics. That contrasts with Tupikovskaja-Omovie and Tyler (2020), who state that, in most cases, women place more attention on product reviews than men.

RQ8: Will female users check the product size guide more often than male users?

Male participants checked the sizing information more often than female participants (Figure 9), unlike the survey by Ulbrich, Christensen, and Stankus (2010) states. That can be explained by Meyers-Levy and Loken (2015), who state that women display risk avoidance and men have a higher willingness to risk and therefore choose a product from a brand they did not buy before.

RQ9: Will female users will use the add-to-cart option less often than male users?

In participant instructions, add-to-cart and add-to-wishlist actions were established as ending incidents which participants will be able to choose. Due to the primacy effect or mentioning the add-to-cart option as the first in the participant instructions, 100% of the participants chose add-to-cart as their ending incident.

RQ10: Will female users use the add-to-wishlist option more often than male users?

Only one female participant attempted to add the product to her wishlist first, but she was unable to do so because she was not logged in to her customer profile; as a result, she chose to complete the assignment by adding the product to the cart. No male participant used or tried to use the add-to-wishlist option.

RQ11: Will female users click on more product images than male users?

Female participants clicked on more product images than male participants, and in their overall online fashion customer journeys, they scrolled through more product photos than male participants. The mean values in Table 4 confirm that. According to Lin, Featherman, Brooks, and Hajli (2018), women are more affected by vividness during online shopping than men. Gonzalez, Meyer, and Toldos (2020) state that women are more likely to form purchase intentions when exposed to a rich contextual background.

The answers to the set of questions, that relate to the established goal (3), which aims to provide practical recommendations for managing the differences in Millennials' gender-based online behavior patterns, are as follows:

RQ12: Can we find patterns and map online fashion website interactions according to gender?

In the sample of 14 Millennial men and women, gender-based online customer behavior patterns while searching for a fashion product could be observed after mapping online fashion customer journeys. Cognitive differences, to some extent, translated into behavioral differences (Goldman, 2017).

RQ13: Can we customize fashion eCommerce websites according to mapped interactions?

Observed gender-based patterns could serve as guidelines to propose customization indications to e-commerce businesses; and the managerial implications on how to better leverage the gender data.

After observing customer journey maps on the ground of established themes for the content analysis, the findings were grouped based on predefined customer journey phases.

Navigation to results

Female participants used filtering with a specific goal in mind, whereas male participants used it to see what filters were available and selected ones that assisted them in narrowing their search results. Male participants, on the other hand, clicked on categories the most, whether it was for gender, product group, or product type. Both genders used the on-site search equally. When male participants used on-site search, they typed more specific search inquiries than female participants. Distinctive product displaying (e.g. price lowest-highest, new arrivals) was used only by male participants, consistent with Ganguly, Dash, Cyr, & Head (2010), who noted that male customers require online stores to present information

logically to facilitate their quick decisions. Pradeep (2010) also states that men value efficiency and simplified short-time shopping processes.

In general, male participants conducted various actions (filtering, on-site search, category clinking, displaying products) to navigate themselves to results. It was possible to observe male participants trying to narrow the results as much as possible right from the beginning by checking out fewer web pages and opening fewer product pages. This result is consistent with findings by Meyers-Levy and Loken (2015), who state that men pursue a more simplified search when shopping. To reduce the options and display themselves with fewer results, they clicked deeper into categories, typed more specific search inquiries, and displayed products in an order logical to them. Those findings are supported by Pradeep (2010), Richard, Chebat, Yang, and Putrevu (2010), Close (2012), and Tevšić and Nanić (2020), who acknowledge that men appreciate an online store that presents them with simplified user experience, and they expect to inform themselves with clarity and without investing additional effort to search for information.

Informative preferences

Female participants viewed more product pages than male participants. While spending their time on product pages, women focused on product photos and exploring color variations. Male participants checked the sizing information more often than female participants, which is not in line with a survey by Ulbrich, Christensen, and Stankus (2010) about gender-specific online shopping preferences, where females valued sizing information more than males. When compared, female participants scrolled deeply into the results they navigated themselves to, and they scrolled through all the existing product photos on opened product pages. On the contrary, male participants focused more on scrolling deeply into the product page they opened and expanding on the information about the particular product. Male participants did not necessarily scroll through all the product images like the female participants. This type of gender-based pattern is also confirmed by practitioners' reports (Zorzini, 2021; Dasha, 2020). It was interesting to see that only male participants clicked on the "Material and care" section on the product page. Male participants also made more use of the "Recommended products" section at the end of the product page, which was recognized by Meyers-Levy and Loken (2015), and Tupikovskaja-Omovie and Tyler (2020).

In general, male participants' informative preferences included more various actions on the product page itself, relying both on visual and textual information. Sizing information, delivery information, even reviews by other customers, was more often checked by male than female participants. On the contrary, female participants opened product pages often in new tabs, scanned the product page, scrolled through all the product photos, checked out the possible color variations, and moved on with the search to another product page, or even another website, what relates to research by Lynch and Barnes (2020). We can additionally connect this to Arcand (2012), who explains that women tend to make more associations between multiple kinds of information and compare brands based on numerous features, and to Kraft and Weber (2012) who state that women shop in a relaxed pace and compare the

variety of items. Furthermore, female participants had a more visual informative preference, while male participants combined visual and textual.

Evaluation and choosing a product

To choose a product they would be willing to buy, participants showed gender-based differences in evaluation and decision of fashion products (Ling & Yazdanifard, 2014.). Female participants compared product tabs and often went backward in their journey, and they repeated their actions of scrolling the photos and checking color variations. When male participants found a product they seriously considered, they informed themselves in-depth on its product page, zoomed in on the images, or slowly went through them. This type of gender-based behavior can be confirmed in inspected practitioners' reports (Zorzini, 2021; Dasha, 2020). In most cases, this already meant they have an intent of purchase. Therefore, contrary to a survey by Rahman (2019), consumer decision-making styles were different in the case of men and women.

In their online fashion customer journeys, male participants predominantly decided on the last product option they opened. Once they found a product that fits their conditions, they did not search further. Female participants nearly never decided on the first or the last product they saw. On the contrary, female participants tended to choose a product they saw somewhere in the middle of their customer journey. Even though it fit their conditions, they searched further and tried to find an even better fit. After comparing product pages, they realized what they want the most. Practitioners' reports also elaborate women as more selective and men as more interested in the results of their purchase, therefore, men decide to purchase as soon as they find a suitable product (Zorzini, 2021; Dasha, 2020).

Starting and ending incidents

Starting and ending incidents were the established themes that did not yield enough variance for gender-based patterns to be observed. (Almost) all participants started their search for a fashion product by typing a website's name into a search engine. And all the participants ended their online fashion customer journeys by choosing their wanted size and adding the product to the cart. Yet, it was possible to see some outliers in the sample, such as:

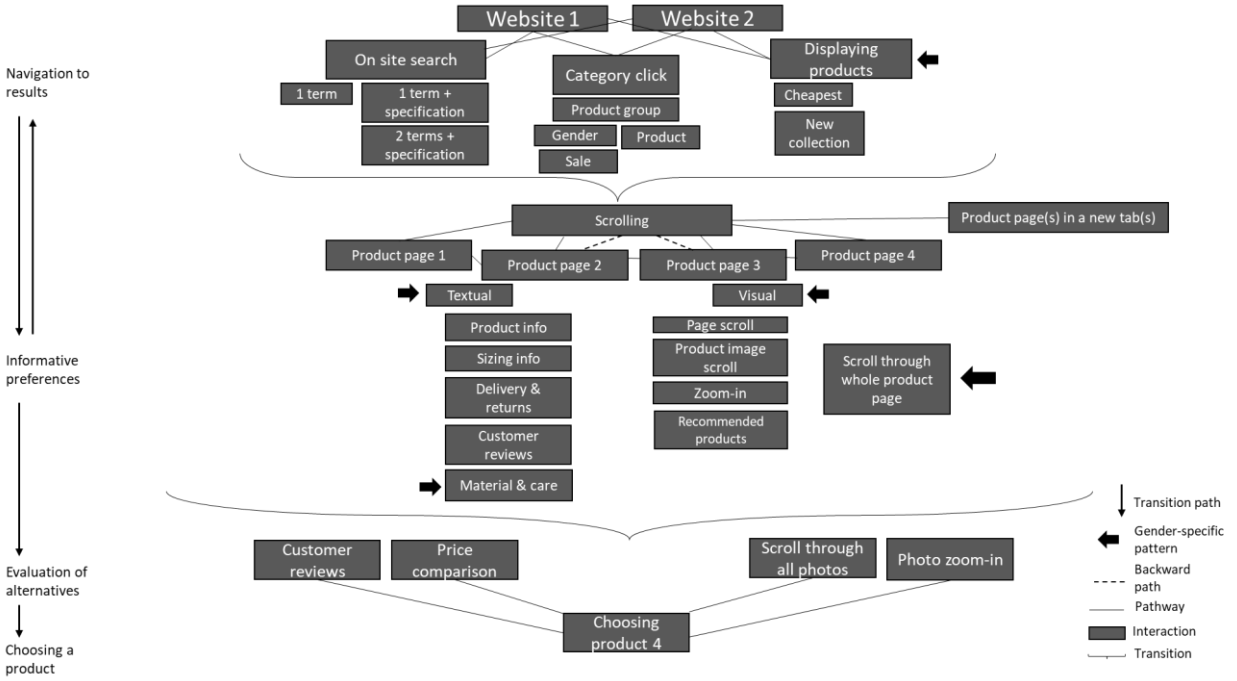
One male participant started his online fashion customer journey by typing "male hoodies" into the search engine without having any particular website in mind.

One male participant put two different products in the basket, checked the estimated delivery time and price for each product, and then deleted one product from the basket.

One female participant attempted to add the product to her wish list first, but she was unable to do so since she was not logged in to her customer profile. As a result, she chose to finish the assignment by adding the product to the cart.

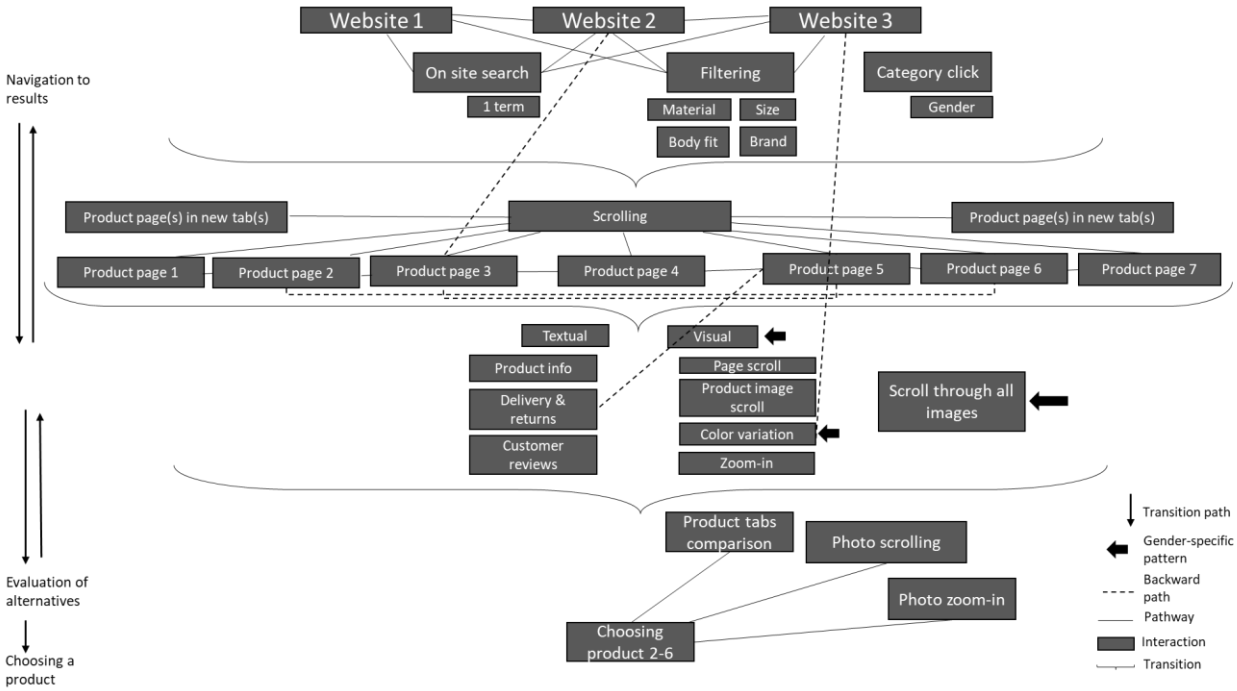
In the following Figures 12 and 13, we can observe created online fashion customer journey maps for female and male participant segments.

Figure 12. Online fashion customer journey map of a Millennial male participant



Source: own work.

Figure 13. Online fashion customer journey of a Millennial female participant



Source: own work.

To summarize the above-drawn findings, Table 5 displays the insights of observing gender-based differences in online fashion customer journeys.

Table 6. Summary of insights on the Millennial online fashion customer journeys.

Category	Male participants	Female participants
Fashion website visits	Visit fewer eCommerce fashion websites	Visit more eCommerce fashion websites
Navigation to results	Use on-site search and category clicking to navigate themselves to wanted results.	Use on-site search followed by filtering to navigate themselves to wanted results
Specification of search results	Are more specific in their on-site search queries. They use the option of displaying results in a particular manner.	Are less specific in their on-site search queries. They support their search with further filtering.
Product pages opening	Open fewer product pages.	Open more product pages.
Scrolling preferences	Scroll down the whole product page.	Scroll through all available product images.
Information preferences	Check out textual and visual information on fashion products.	Check out primarily visual information on fashion products.
Deep scrolling preferences	Click and scroll deeply into a product page.	Click and scroll deeply into the product category and compare product pages.
Online fashion customer journey path	Rarely go backward or switch between the stages in their journeys. If they do – they do this to narrow down displayed results even more.	Often go backward in their journeys and switch the stages of their journeys. They "jump" from website to website, from product page to product page, to compare.
Product choosing preferences	In most cases choose the first product they find that fits their requirements (the last product page they open).	Never choose the first or the last product page they open, tend to choose the "middle" products.

(table continues)

(continued Table 6: Summary of insights on the Millennial online fashion customer journeys)

Decision making informational preferences	Decide about choosing a fashion product based on textual (price, estimated delivery, reviews) and visual (scroll through all product photos, zoom in a product detail) information.	Decide about choosing a fashion product based on visual information, and comparison among other products.

Source: own work.

5 DISCUSSION AND IMPLICATIONS

To the degree of my knowledge, this is the first research that combines multiple real-life eCommerce websites, diverse countries and nationalities, participants' own devices, and the method of screencasting videography, to explore gender differences in online customer behavior in the segment of fashion.

Selecting Millennials as participants stepped away from the repeated practice of conducting eCommerce research based on students' behaviors and attitudes (Sohail, 2020). The sample in this research consisted of multiple European countries of origin and countries of living, and remote handling enabled valuable insights regarding language settings on eCommerce fashion websites. The choice of screencasting videography allowed for real-time observation of online user activity, which would be hard to capture otherwise. Since no time or content limit was imposed on the participants, it was possible to observe and compare their behavior on multiple websites they chose. All of this contributed to the successful distinguishment between male and female Millennials' online search patterns and purchase intentions in fashion marketplaces, in other words, tackling the established goals (1) and (2) of this research.

Since session recording software is widely available and automated analysis is possible with session replay software, future development of screencasting videography can be anticipated. According to Krieter (2020), manual screen analysis has been used in a small number of studies to analyze customer behavior. This method of research is time-consuming and rare. The unique input of this research lies in observing and comparing participants' behavior on fashion websites that are real-life competitors, where hours of manual analysis go beyond instantaneous analytical software results. Online shops positioned as fashion eCommerce market leaders are compared from the customer perspective, which enabled the undertaking of the established goal (3) of this research, that aimed to provide managerial

solutions on how to better leverage the gender data and presented gender-based patterns to offer a refined user experience. Another unique input can be found in Appendix 4, a research diary that was documenting the whole research procedure.

Some findings from this study were unanticipated, such as male participants clicking on the "Material and care" section on the product page and male participants checking sizing information more often than female participants, which is not in line with Ulbrich, Christensen, and Stankus (2010). The latter could be explained by male consumers favoring efficiency (Meyers-Levy & Loken, 2015), and having a practical view towards shopping, contrary to female recreational view (Tevšić & Nanić, 2020), specifically when it comes to fashion products.

The choice of screencasting methodology as primary data collection, which gave results which were consistent and inconsistent with previously inspected sources, and was also positively reviewed by participants, contributes to an endorsement of this type of online customer research by other researchers and online marketing practitioners. The way European Millennials, in terms of gender, differ in online fashion information search while browsing for a fashion product, and the way this affects their purchase intentions, provides valuable insights for the biggest segment in European eCommerce, worth more than €118 billion of revenues (Statista, 2021).

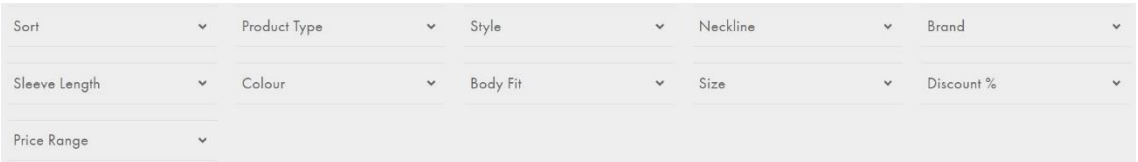
5.1 Managerial and theoretical implications

General implications which were noticed during data collection include language settings and categorization insights of online shops. For example, a participant in this research has a Croatian nationality, lives in Germany, but wanted the online shop which she visited to be in English. She attempted to switch the language from German to English during her online customer journey, but she was having trouble doing so because the website was continuously attempting to link her language preference to her current location. This type of experience made her switch to another eCommerce website. The latter is just one example of many where we can conclude that website's language settings should be something that users can easily choose and change and should not be related explicitly to the location. It is also essential to mention that international online fashion shops must customize their on-site search engines based on the customers' languages, without excluding the widely used English language. In addition, customers often type complex search inquiries, consisting of multiple terms, and this interaction often yields useless results. For example, when an Italian participant visited a market leader fashion website, he typed a brand and a term hoodie in an on-site search. He received nearly no results, except for one product, a ski cap from this brand. Then he went away from this website and visited the original website of the brand he wanted. There he quickly found the results and ultimately decided to add the item from that site to his basket.

Another insight includes the navigational functionalities of an eCommerce website. To multiple participants, it happened that they first clicked on their gender category - men or women. Afterward, they continued their search by using an on-site search function, where they typed the product they were searching for. The website then again displayed them with products for both genders, so they had to repeat their action of either clicking on the gender category or filtering by gender. That additional effort and repeated action should not be imposed on online fashion shoppers, especially not on men.

Filtering and on-site search should be prioritized in the online shop's navigation to enhance female Millennials' online fashion purchase intentions. Implementing a well-executed on-site search gives an advantage from both the company and customer perspective. The functionality of the on-site search must be updated regularly considering the types of search queries that customers type. Female online fashion shoppers use filtering intensively, and they rely on it to give them a variety of products to choose from, but not to show them what they do not want to see. A good example of female-friendly filtering can be observed in the image below. A wider variety of filters is recommended to reach female online fashion shoppers and increase their purchase intentions.

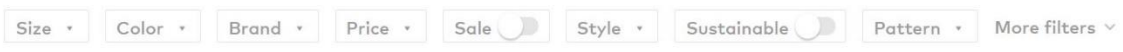
Figure 14. An example of website filtering tailored to female Millennial users.



Source: Asos, 2022.

To display gender-based differences, another good example that could enhance male Millennials' usage of filtering and, consequently, purchase intentions can be observed below in Figure 12. The most often used filters are right at the beginning, sale and sustainability filters work as on/off buttons, while style and pattern, which were not used by male participants at all, are put in the end. If wanted, a user can display more filters too.

Figure 15.An example of website filtering tailored to male Millennial users



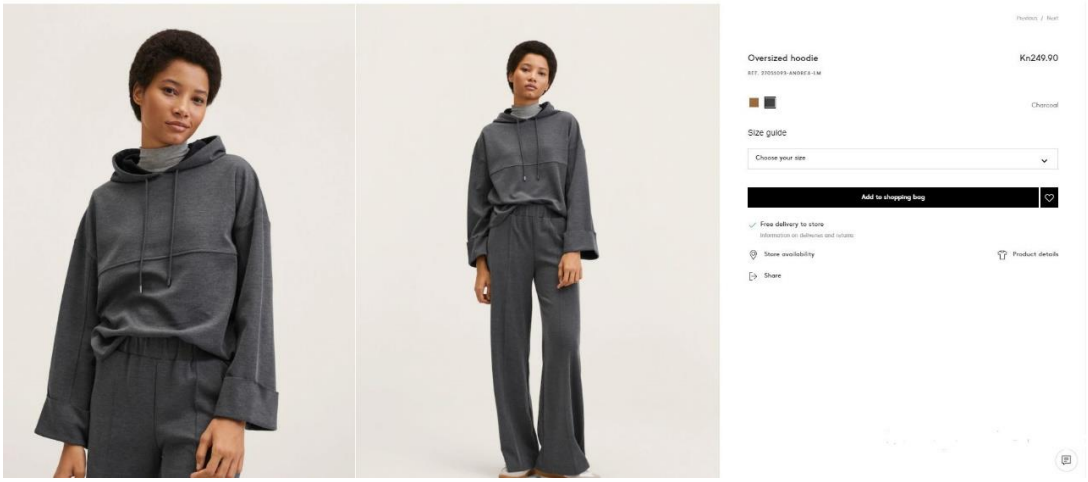
Source: AboutYou, 2022.

In addition, when informing themselves about products, women primarily use visual information, such as product images and color variations. Fashion product images should

display various product aspects since women habitually scroll all the available photos. Product images also play a vital part in the decision-making stage of the female online fashion customer journey. Investing in professional photo shooting, image editing, and A/B testing are helpful to reach the highest purchase intention. Another crucial element to consider is that women often skip the steps and go backward in their online fashion customer journeys, going from evaluating the alternatives and almost choosing a product on one website to navigating the results on a new website and starting all over again. Female Millennials rely on comparison of fashion products a lot, and they like to see a lot of possibilities before deciding (Lynch & Barnes, 2020). To increase their purchase intention, websites should embrace the complexity of their journeys by memorizing their previous steps and allowing them to continue where they left off. Rather than pushing remarketing content directly after a woman leaves the fashion website, it is advantageous to wait for a female customer to come back one or two more times and leaves more data in the digital analytics software. Only then is beneficial to target her with personalized content, tailored to her affinities. That triggers not only her rational, but her emotional aspect of information processing and problem-solving (Pradeep, 2010; Goldman, 2017). This adds up to Wang (2010) who mentions that browsing frequency positively influences female website revisiting intentions.

A well-executed example of a product page (and website) tailored to female Millennials can be seen in Figure 14. Compared to the font size, photos are big and take more than half of screen space. To reach the product description, a visitor must scroll through ten high-quality photographs of different women wearing the product in combination with simple product pictures. The product page is followed by several product recommendation categories, one of which is recently viewed products.

Figure 16. An example of a product page tailored to female Millennials.



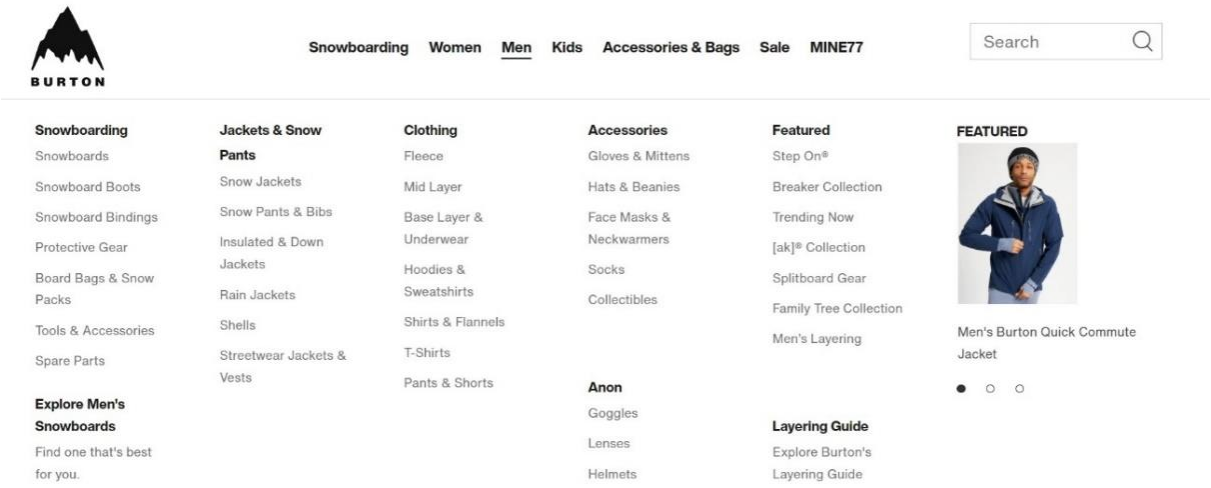
Source: Mango, 2022.

For creating trust in an e-service, men evaluate both visual schemes and navigation functions of a website (Pengnate & Sarathy, 2017). Oghazi, Karlsson, Hellström, Mostaghel, and Sattari (2020) state that in the case of men, increased trust leads to increased purchase intention.

Enhancing the online fashion purchase intentions of male Millennials requires the navigation of the online shop designed with a focus on categories and on-site search. Male Millennials' purchase intention could be increased by providing them with quick, simple, and accurate search results for their multi-term search inquiries. They type in a multi-term search inquiry (e.g., hoodie cotton), and if they see accurate results, they already enter the next stage of their online fashion customer journey. Tracking male search inquiries and updating the on-site search engine is essential for enhancing male Millennial website satisfaction and purchase intentions.

When it comes to website categories, the logic is similar. Male Millennials appreciate structure and directness. A good example of categorization for a Male Millennial can be observed below in Figure 14. Each category has a bolded name, subcategories are not overly plentiful, and they have straightforward names. It is simple to find a way around the displayed categories and the font is easily readable, with enough blank space in between.

Figure 17. An example of categorization tailored to male Millennial users.



Source:Burton, 2022.

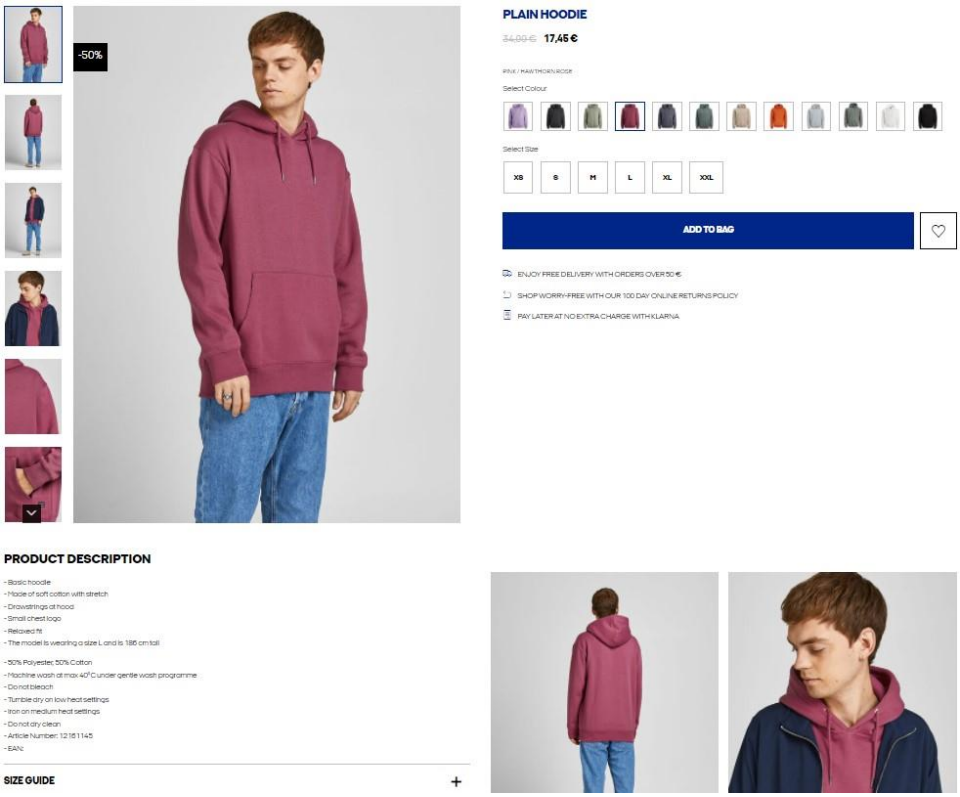
When they inform themselves and make decisions, male Millennials rely both on visual and textual information. What causes the initial interest in their journey is the picture of the product they see scrolling through the results. But what keeps them on the product page is the structure and content of information seen after opening the product page. Even when it comes to fashion products, they take into consideration practical aspects, such as delivery,

reviews, and price. Information that is presented to male Millennials should be shortened, simplified, and structured to enhance their purchase intentions.

Men appreciate directness in information presentation, and they fixate on significantly less data when they process available information (Meyers-Levy & Loken, 2015). Therefore, if the user interface lacks blank space, it is overcrowded with words or the font is too small, they turn to competition. Female recreation-oriented nature towards fashion and shopping (Mehta, 2020) could surpass those difficulties in user experience, but in the case of male Millennials, those instantly mean loss of customers. The visible structure of a website influences male level of satisfaction with the retailer builds a positive attitude and impacts their purchase intention (Kanwal, Burki, Ali, & Dahlstrom, 2021).

An example of a product page tailored to a male Millennial can be observed in Figure 15. Big photos that take not more than half of the screen, followed by the simplified product description. The other half of the screen is occupied with practical functionalities, such as price, color variations, sizing, an add-to-cart button, and a delivery and returns policy. Altogether is presented straightforwardly, with easily readable, highlighted headlines.

Figure 18. An example of a fashion product page tailored to male Millennial users.



Source: Jack and Jones, 2022.

In the case of fashion and eCommerce, customer journeys are more diverse due to endless opportunities, choice, and convenience. Contributions to existing theory include an observation that male Millennial online fashion customer behavior is aligned with traditional theory of consumer buying decision process (Kotler & Keller, 2016) and the updated theory by Solomon, Bamossy, Askegaard, and Hogg. (2006). In the case of female Millennials, omnichannel customer journey by Lynch and Barnes. (2020), with new highly digital stages is more suitable. Its inspiration phase and simultaneous research and comparison phase are more applicable to involve all the touchpoints in today's digital customer journeys. Altogether, due to digital maturity of fashion, Zero Moment of Truth, as just a moment of the consumer journey, plays a deciding role in selling fashion products. Therefore, gender-related differences in information processing (Pradeep, 2010; Richard, Chebat, Yang, & Putrevu, 2010) of fashion websites require customized information presentation. Opportunities to optimize online fashion customer journeys are hidden in behaviors that happen in a blink of an eye. Screen recording customer journeys or using a session replay software helps capturing the online interactions that are hard to capture with other methods or see in analytical software.

5.2 Limitations and further research

This research is subject to limitations. The limitations include a small sample size, collected by convenience sampling, of only one generational cohort. The primary data was collected in contrived settings and all participants were searching for the same predetermined product. In the case of bigger sample size, it would be possible to establish hypotheses and test them. Furthermore, only one demographic variable was considered – gender. Different variables relevant to fashion retailers, such as e.g. fashion consciousness, consumer-spending power, should also be considered when exploring online fashion consumer purchase intentions. The generalizability of this research is limited by the characteristics of the participants and the sample size. In addition, using screencasting videography to research online fashion customers' behavior could generate insightful results when conducted over a longer period, like in the case of Krieter (2020) and Vuong (2017). Exploring different generations of online consumers and screen recording their online customer behavior on their smartphones could yield valuable results for online fashion retailers since available literature displays a gap in that field (Tupikovskaja-Omovie & Tyler, 2020). Further research can adopt the guidelines from Kawaf (2019) and apply them with an additional voice recording or camera recording. To sum up, the revelation of the true potential of screencasting videography requires more diverse research efforts in this area. That would contribute to the theory and practice of analyzing such data.

CONCLUSION

This thesis introduces the importance of eCommerce, particularly in the fashion industry. After examining the available sources regarding online fashion and information search, it reviews the relevant literature regarding gender differences in general consumer behavior and more specifically, gender differences in online shopping. Intending to step away from using questionnaires as a method and students as participants in online customer behavior exploration, this research employs screencasting videography and focuses on the Millennial generation. To tackle the goal of using an alternative method for exploring consumer online fashion purchase intention, the guidelines by Kawaf (2019) are followed and primary data of 14 screencasts of 7 men and 7 women are collected to compare their online fashion purchase intentions.

Primary data generated valuable insights. Firstly, the participants did not hesitate to be part of such research, and they gave positive feedback. Secondly, by seeing how they behave online, on their own devices, and in various online shops, it was possible to observe dynamical experiences of Millennial online consumer behavior. Finally, by qualitatively analyzing these dynamic experiences, it was possible to recognize gender-based patterns in purchase intentions and provide managerial implications.

Using an infrequent method came with challenges. However, it gave an inexpensive, valuable, multi-modal primary data source. Observing customers' screens gives the researcher the possibility to look inside their subconsciousness and behaviors they are not able to express in words.

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APPENDICES

Appendix 1: Povzetek (Summary in the Slovene language)

To magistrsko delo se osredotoča na analizo spletne nekupne namere modnih oblačil s pomočjo uporabe posnetkov zaslona med moškimi in ženskimi milenijci. Po preučitvi razpoložljivih virov, ki se nanašajo na omenjeno temo, sledi podrobna razlaga izbrane metode in predstavitev ustrezne teorije. Magistrsko delo na področju metodologije sledi smernicam Kawafa (2019). Z namenom primerjave online nakupnega procesa in nakupne namere med spoloma zberem 14 posnetkov zaslona - sedem moških in sedem ženskih spletnih nakupovanj na primeru nakupa modnih oblačil. S kvalitativno analizo tega dinamičnega spletnega vedenja je bilo mogoče prepoznati vzorce, ki temeljijo na razlikah med spoloma. Dragoceni multimodalni vir podatkov posnetkov zaslona je ustvaril podroben vpogled v spletne potovanja strank iz katerega ihajajo koristne usmeritve za skrbnike blagovnih znamk. Opazovanje porabnikovih zaslonov raziskovalcu omogoča podrobnejši vpogled v vedenje porabnikov, ki ga slednji bodisi ne znajo ali ne želijo izraziti z besedami.

Appendix 2: Cover letter and consent document

COVER LETTER AND CONSENT DOCUMENT FOR A MASTER'S THESIS RESEARCH

UNIVERSITY OF LJUBLJANA, SCHOOL OF ECONOMICS AND BUSINESS

Dear participant,

This research is part of my master's thesis project that will use screen recording to analyze online consumer fashion purchase intention. Your participation is very meaningful in enabling me to conduct the research for my master's degree, with a goal of understanding the differences in online consumer behavior of Millennial men and women. The intention of screen recording is to observe your online behavior in a familiar online shopping environment.

The task will include that you find yourself a product you are willing to buy, without having to conclude the purchase. You will find out which product is in the task just before the research starts. Your attendance will be purely digital and will be done in a following way:

1) It will require that you install Teamviewer to your own personal computer. The process of installation is explained in the participant instructions you received.
2) In your scheduled research participation time slot, I will connect to your personal computer. The online shopping task you have to fulfill is explained in the participant instructions you received.
3) When you are done with the task, you will notify me, then end the Teamviewer connection, and the recording automatically stops.

There are no right or wrong answers, I am only interested in your personal views. There is no time constraint. All information you provide will be used anonymously and you will not be identified at any point. The screen recordings of your customer journey will be treated in the strictest confidence. The data from your screen recording will be seen and processed only by me, used only as the main data set for my master's thesis research project. If you have any questions or would like further information, please do not hesitate to contact me on my email.

If you are willing to participate in the research, please fulfill and sign the consent document attached below. I appreciate and kindly thank you for your provided help and cooperation.

Mihaela
mihaela.kolacevic@gmail.com

COVER LETTER AND CONSENT DOCUMENT FOR A MASTER'S THESIS RESEARCH

UNIVERSITY OF LJUBLJANA, SCHOOL OF ECONOMICS AND BUSINESS

Dear participant,

please fill out this given consent document.

I, as the participant in the research,

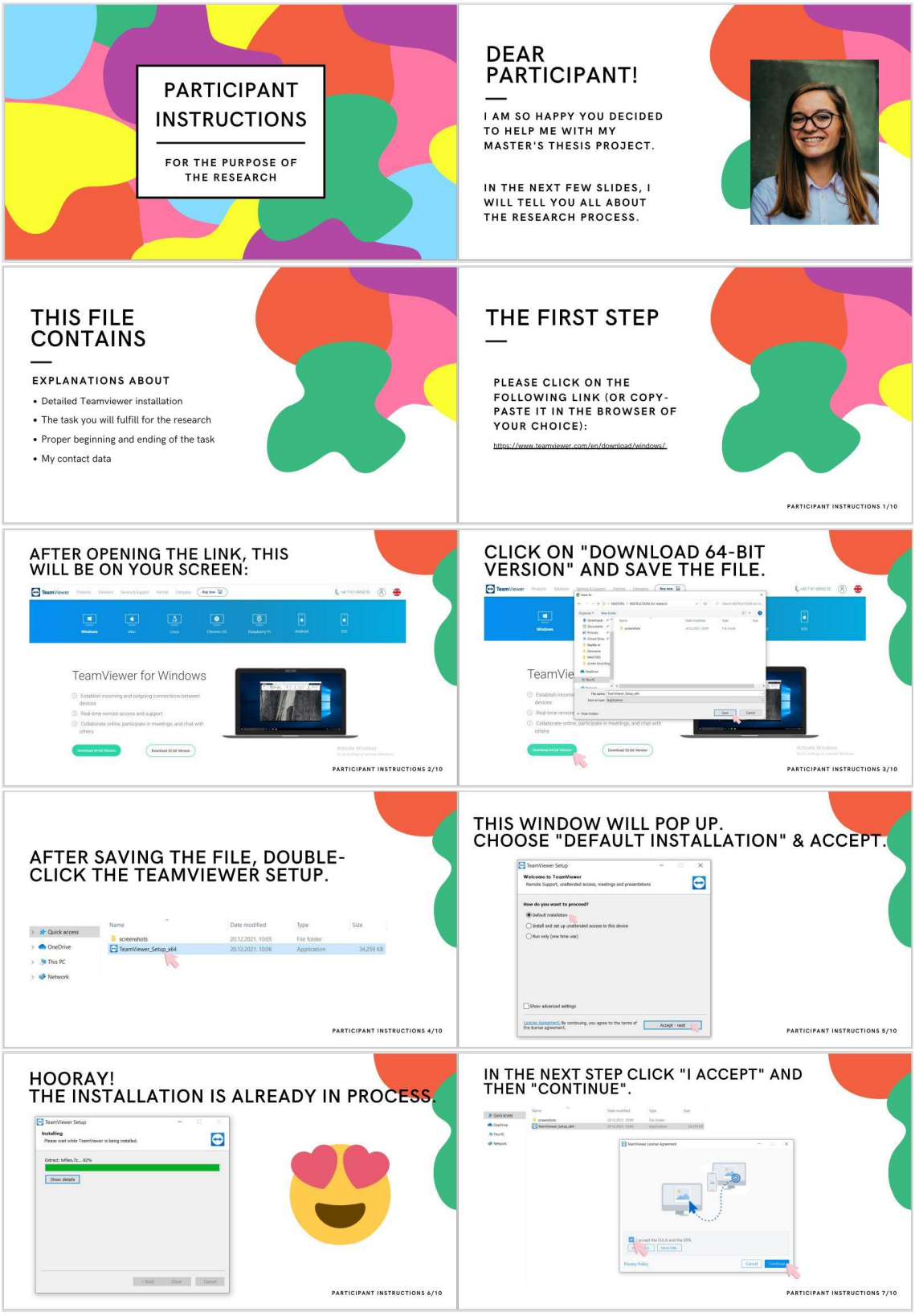
☐ give my consent to the usage of the screen recording of my online behavior on my personal computer for the purpose of this research, and
☐ give permission to the researcher to analyze and process the data of my screen recordings.

Please sign on the line below.

X _____

Participant signature

Appendix 3: Participant instructions



DEAR PARTICIPANT!

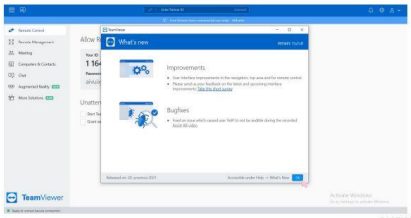
NO WORRIES!
The connection will only be one-time and fully under your control. It is solely for the purpose of this research and won't extract any data from your computer.

YOU'RE IN CHARGE!
In order to be able to connect to your personal computer, I will always need your approval.

SAFETY FIRST!
Teamviewer is very intelligent and generates a new password for every connection established with your computer.

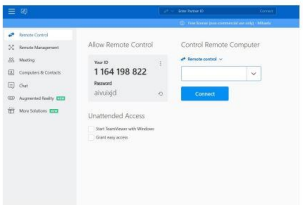
PARTICIPANT INSTRUCTIONS 8/10

THE NEXT STEP IS TO SIMPLY LAUNCH TEAMVIEWER AND CLICK OK.



PARTICIPANT INSTRUCTIONS 9/10

HOORAY! INSTALLATION IS DONE!



After you installed the Teamviewer, the next step is to simply read me your ID and password.
You will have to accept my connection on your computer and *voila*! Let's start screencasting!

PARTICIPANT INSTRUCTIONS 10/10

LET'S EXPLAIN THE TASK!

1. PROPER BEGINNING

After you give me your ID and password, you will have to allow me to record your screen. TeamViewer will ask you for allowance and you should just press the button "allow". Once this is done, we have the green light! We are connected and ready to screencast.

TASK EXPLANATION 1/4

LET'S EXPLAIN THE TASK!

2. THE TASK ITSELF

The task is to find yourself one hoodie you would be willing to buy.

You have no time or any other limit imposed.

You can use more tabs and check out more websites.

Allow yourself to click away and research the products that interest you.

I just want you to relax and behave like you normally behave when you buy yourself clothes online.

TASK EXPLANATION 2/4

LET'S FINISH THE TASK!

3. PROPER ENDING

Once you find the hoodie, you should end the process by clicking either "add to cart" or "add to wishlist". You don't have to buy or process the payment, this is not required.

This is now very important! Please, before you end the screening session by clicking the "x" on the TeamViewer window, notify me that you've completed the task.

To sum up, the proper ending goes as it follows:
1. Add to cart or Add to wishlist
2. Notifying me.
3. The end! - X on the TeamViewer window.

TASK EXPLANATION 3/4

IF YOU HAVE ANY QUESTIONS:

I am available before, after, and during the research!
Please, if something is not clear to you or if have any uncertainties, ask away.

I am very happy to answer anything about this research.

After all, as Mister E. Ionesco said:
It is not the answer that enlightens, but the question.

TASK EXPLANATION 4/4

MY CONTACT DATA

MIHAELA.KOLACEVIC@GMAIL.COM

+385995977844

THANK YOU

YOU WERE AN AMAZING PARTICIPANT!

Appendix 4: Research diary

1st participant – male, 1994.

No technical difficulties regarding software installation, no misunderstanding of the task, efficient when it comes to signature for the consent document.

2nd participant – female, 1983.

Work laptop doesn't allow Teamviewer installation due to cybernetic attack protection, therefore the research participation was conducted on her personal iPad. Software installation was exchanged with app installation of the same provider on her iPad. No misunderstanding of the task, efficient signature of the consent document.

3rd participant – male, 1991.

No technical difficulties regarding software installation, no misunderstanding of the task, efficient signing of the consent document. Forgot to fill out the consent document and just sent it signed. Afterwards he both filled it and signed it.

4rth participant – female, 1995.

Difficulties regarding software installation, contacts me for the help. She was unable to run the software on her personal computer. Her computer has an iOS software, therefore after the installation of the software computer should have been restarted. After restarting the computer software worked normally.

During the research process her internet breaks down. We chat and arrange that we start a second screen recording session where she left off. In the end she doesn't put a hoodie in the basket, but a sweatshirt. Unsure whether to consider this session in the data analysis.

She implies that the consent document sent in a Word file is complicated to sign, therefore I send her already filled pdf file that just requires signature. She manages to sign. This implication contributed to more efficient further signing of the consent documents for other participants. From now on I only sent the pdf file that requires participant's signature, without anything to fill in.

5th participant – female, 1989.

Already had installed software on the personal computer. No misunderstanding of the task, efficient when it comes to signature for the consent document. Said compliments about the instructions presentation. Signature of the consent document sent afterwards

6th participant – male, 1986.

Already had installed software on the personal computer. No misunderstanding of the task, very efficient task completion. Signature of the consent document sent afterwards.

7th participant – female, 1994.

Installed the software without difficulties. During the task she asks whether the hoodie means that the chosen item must have a hood, or she can also choose a sweatshirt. Signature of the consent document sent afterwards.

8th participant – male, 1995.

Installed the software without difficulties. No misunderstanding of the task. Signature of the consent document sent afterwards.

9th participant – male, 1993.

Installed the software without difficulties. No misunderstanding of the task. Signature of the consent document sent on time.

10th participant – female, 1994.

Installed the software without difficulties. No misunderstanding of the task. Signature of the consent document sent on time.

11th participant – female, 1996.

Installed the software without difficulties. Minor technical issues regarding allowance of recording of the screen. Solved independently by the participant herself, in computer and Teamviewer settings. No misunderstanding of the task. Signature of the consent document sent on time.

12th participant – female, 1989.

Installed the software without difficulties. Minor technical issues regarding the digital signature of a pdf document. Solved independently by the participant herself, quickly and without delay. No misunderstanding of the task. Signature of the consent document sent on time.

13th participant – male, 1992.

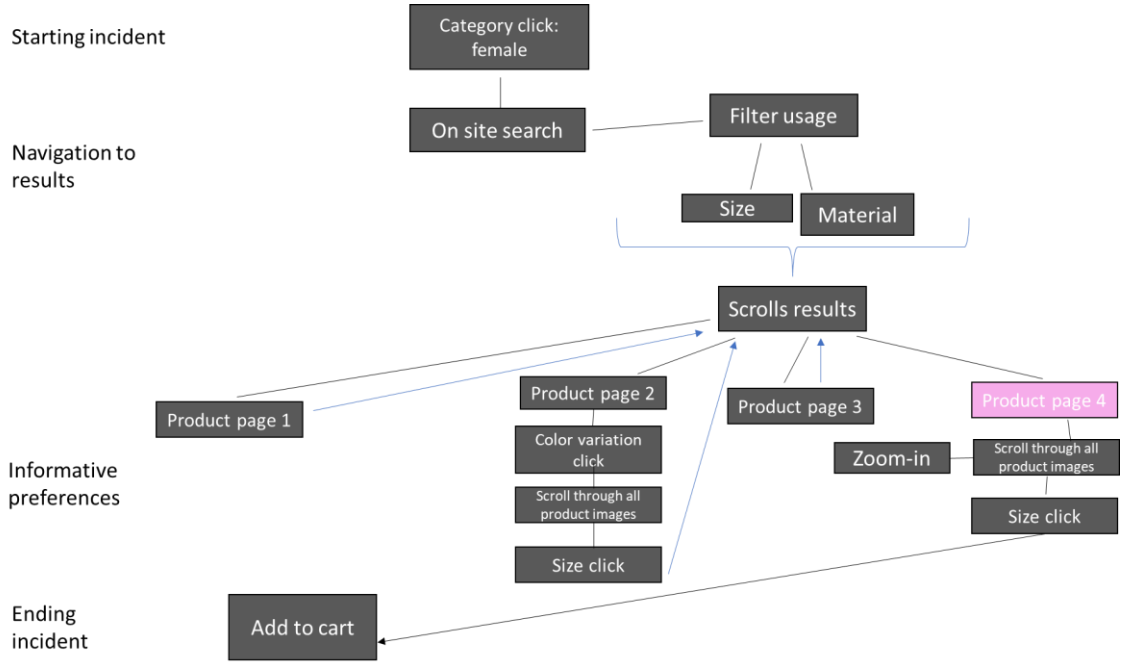
Installed the software without difficulties. Requests to communicate on Telegram App instead of WhatsApp. No technical issues. No misunderstanding of the task. Signature of the consent document sent on time.

14th participant – female, 1995.

Installed the software without difficulties. No technical issues. No misunderstanding of the task. Signature of the consent document sent on time.

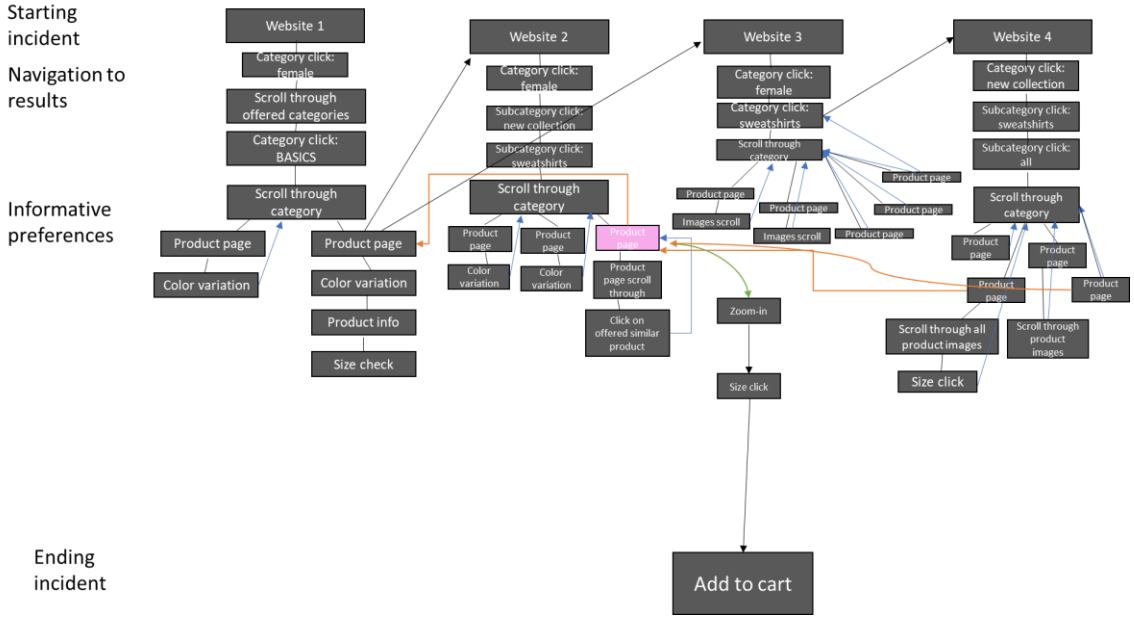
Appendix 5: Customer journey maps

Figure 19. Customer journey of the female participant no. 1



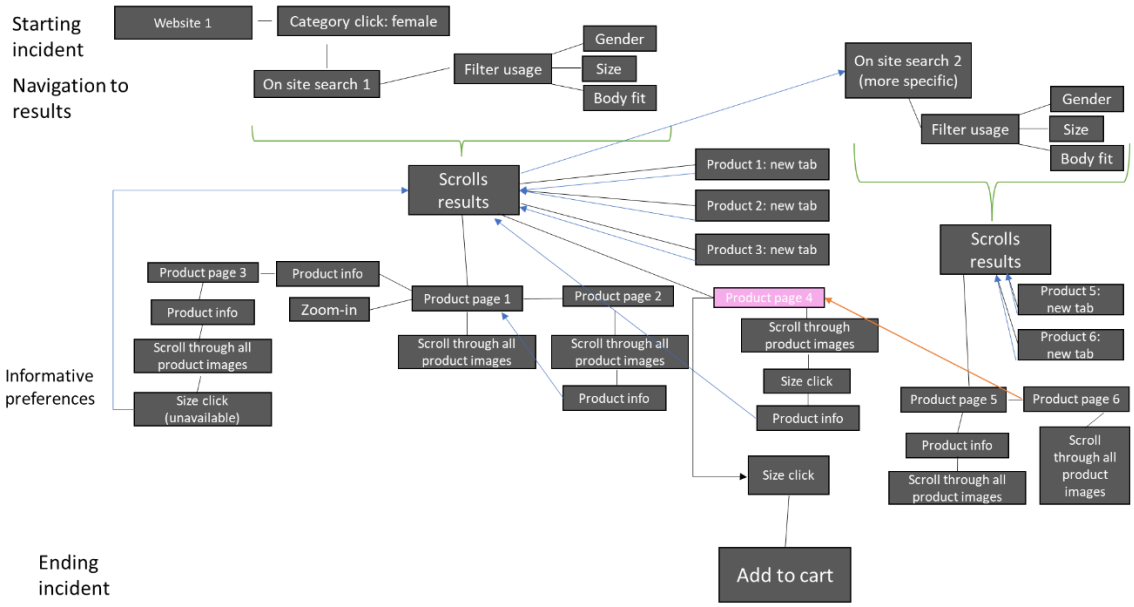
Source: own work.

Figure 20. Customer journey of the female participant no. 2



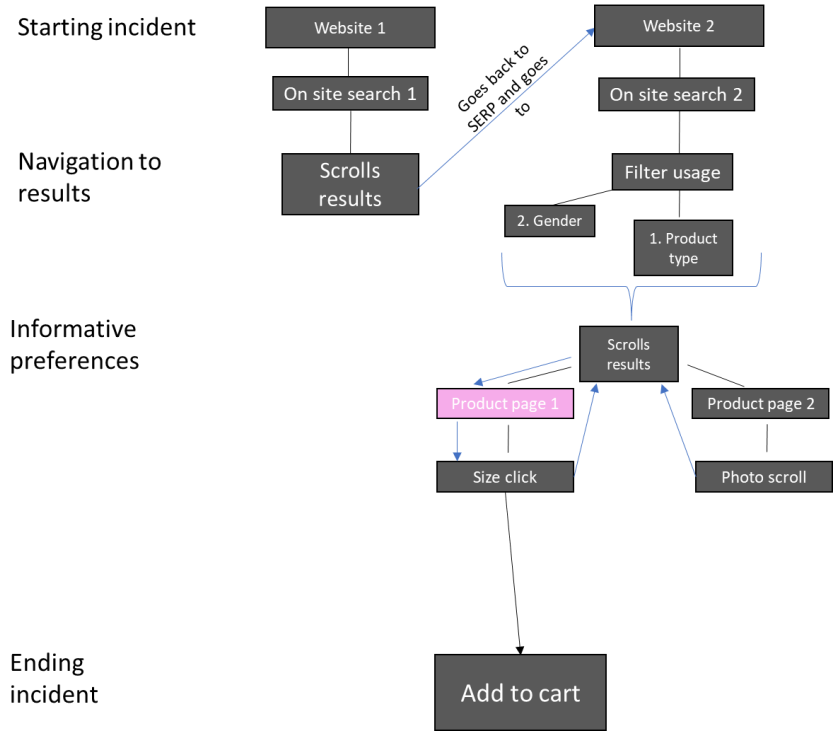
Source: own work.

Figure 21. Customer journey of the female participant no. 3



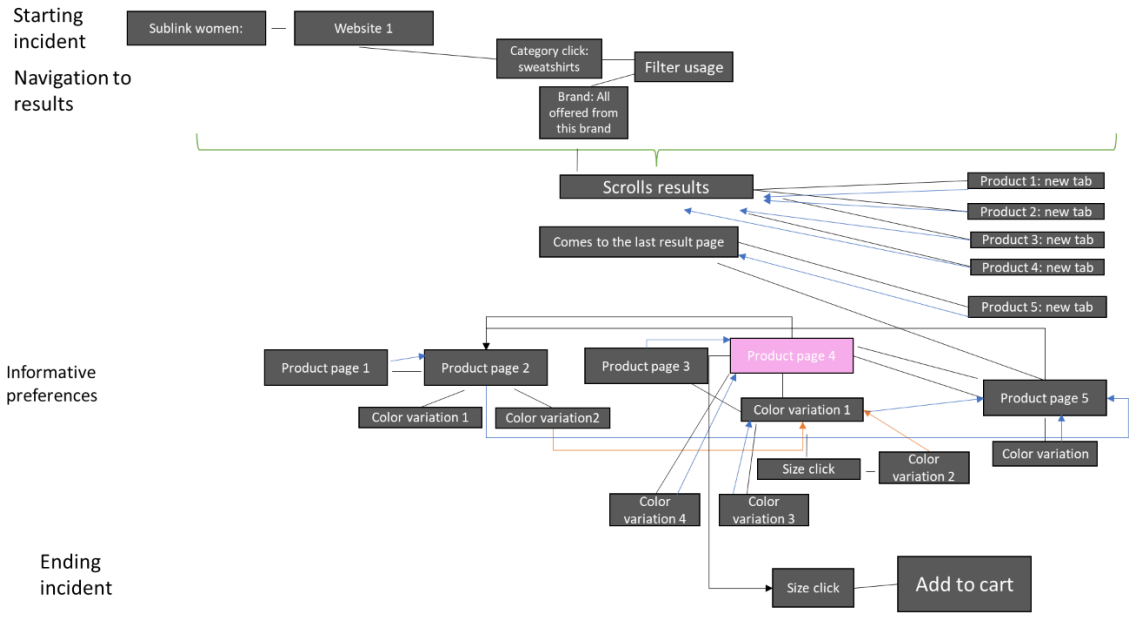
Source: own work.

Figure 22. Customer journey of the female participant no. 4



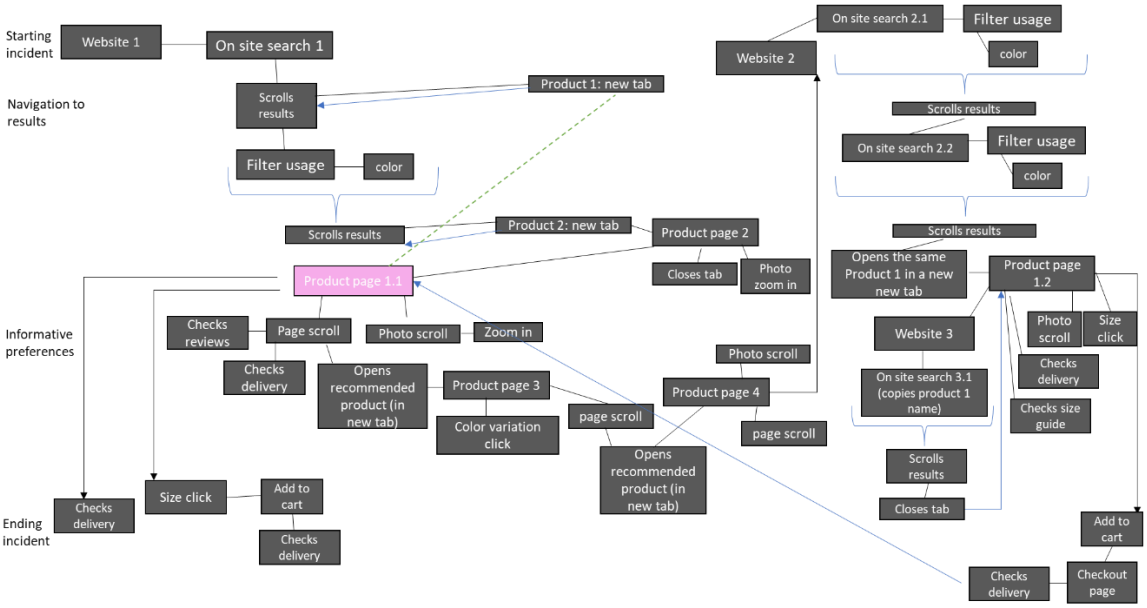
Source: own work.

Figure 23. Customer journey of the female participant no. 5



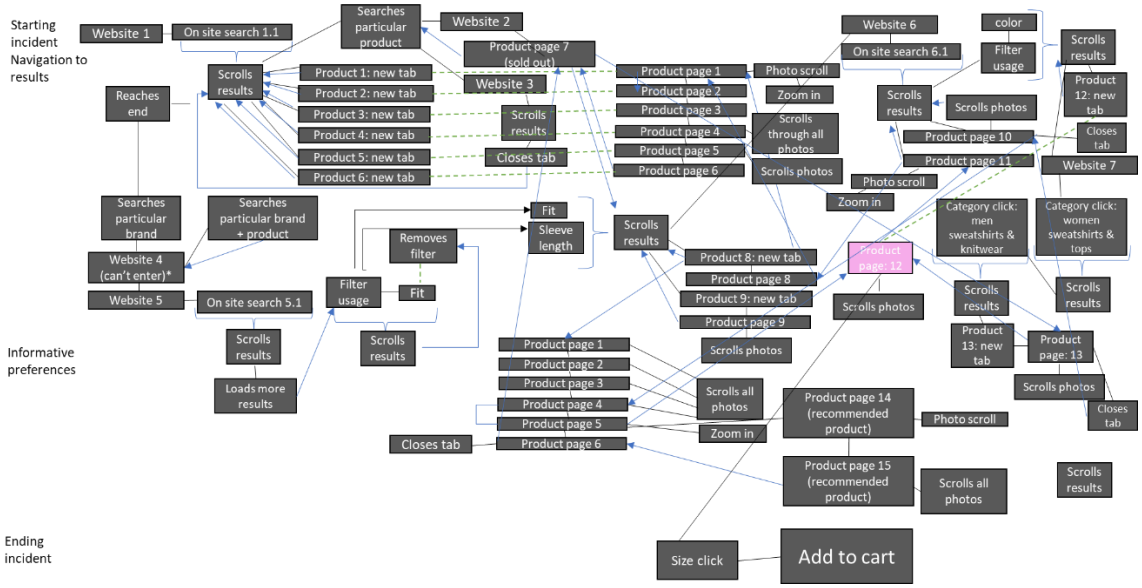
Source: own work.

Figure 24. Customer journey of the female participant no. 6



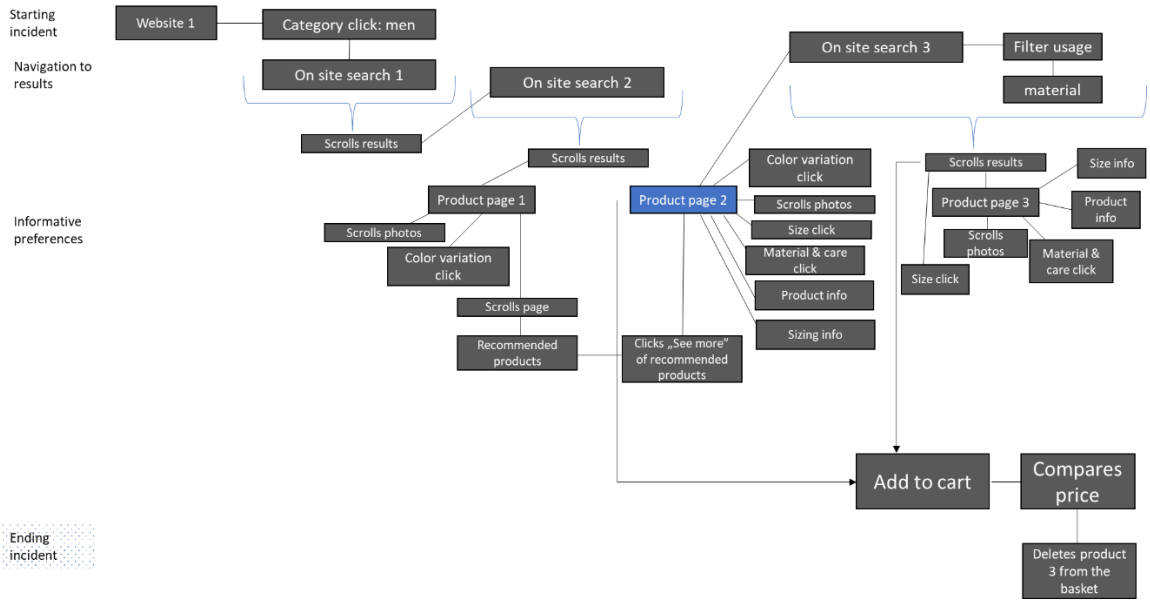
Source: own work.

Figure 25. Customer journey of the female participant no. 7



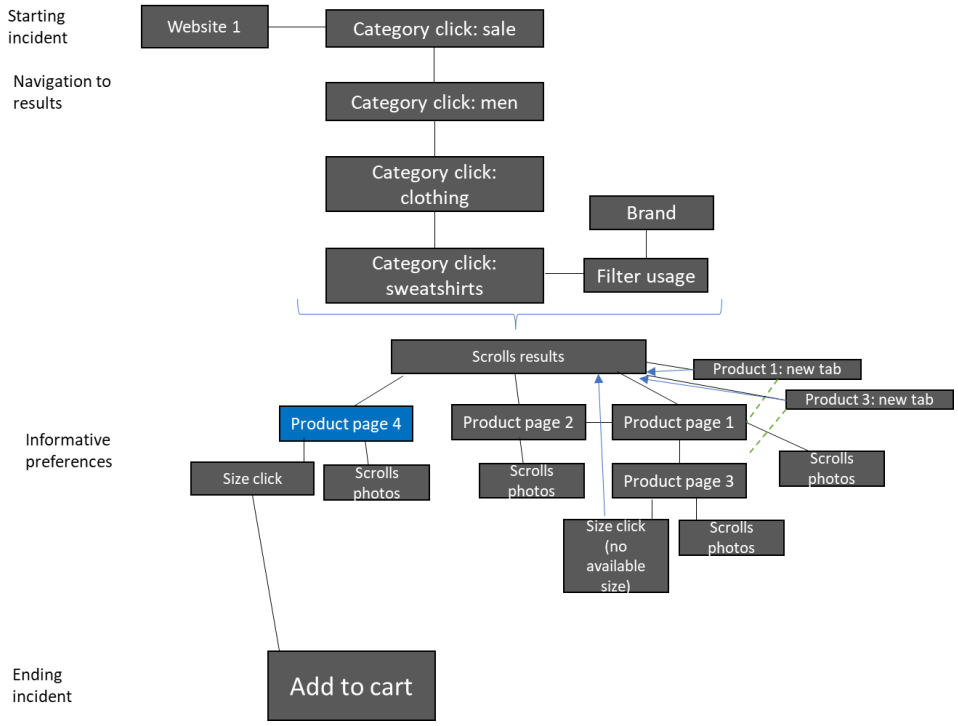
Source: own work.

Figure 26. Customer journey of the male participant no. 1



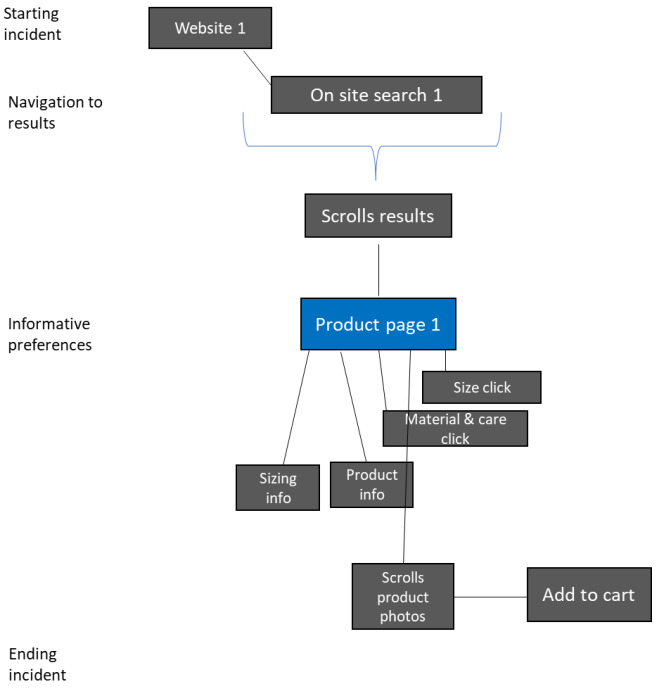
Source: own work.

Figure 27. Customer journey of the male participant no. 2



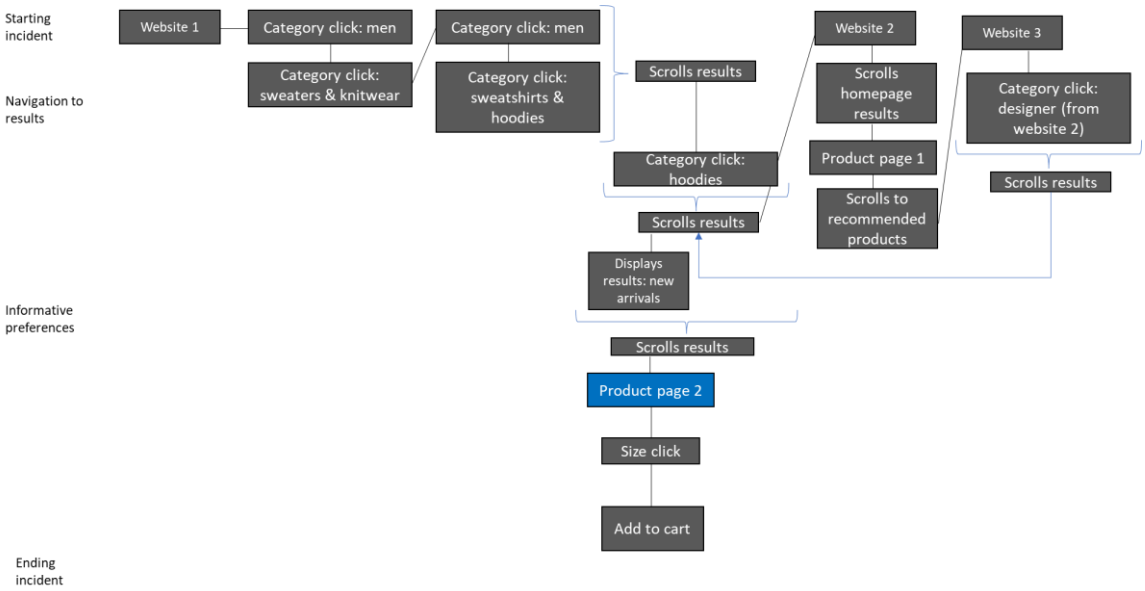
Source: own work.

Figure 28. Customer journey of the male participant no. 3



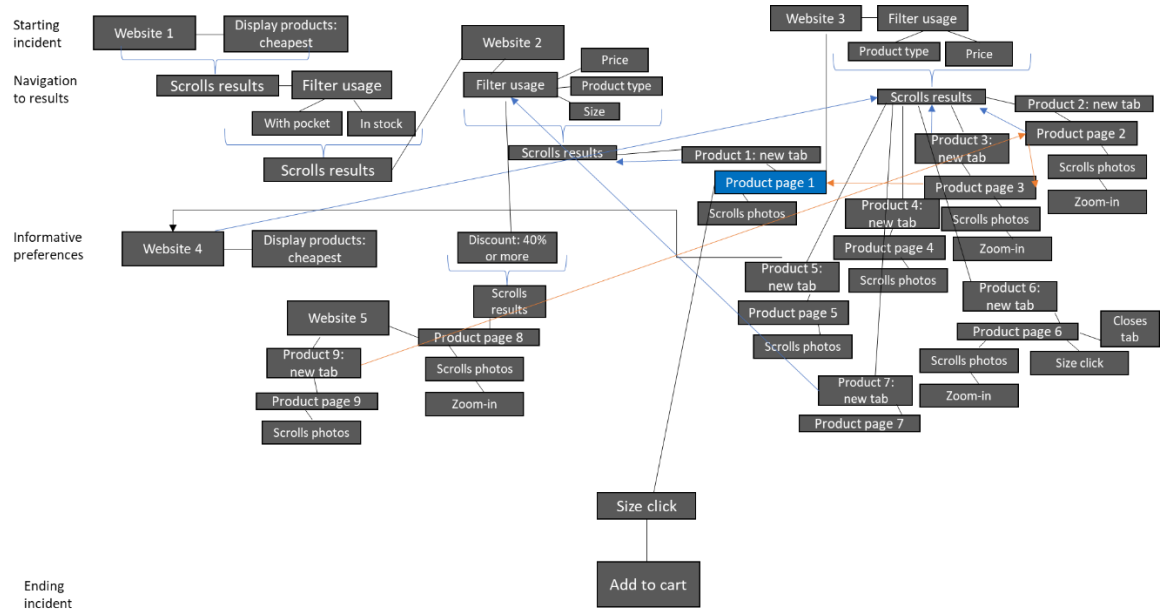
Source: own work.

Figure 29. Customer journey of the male participant no. 4



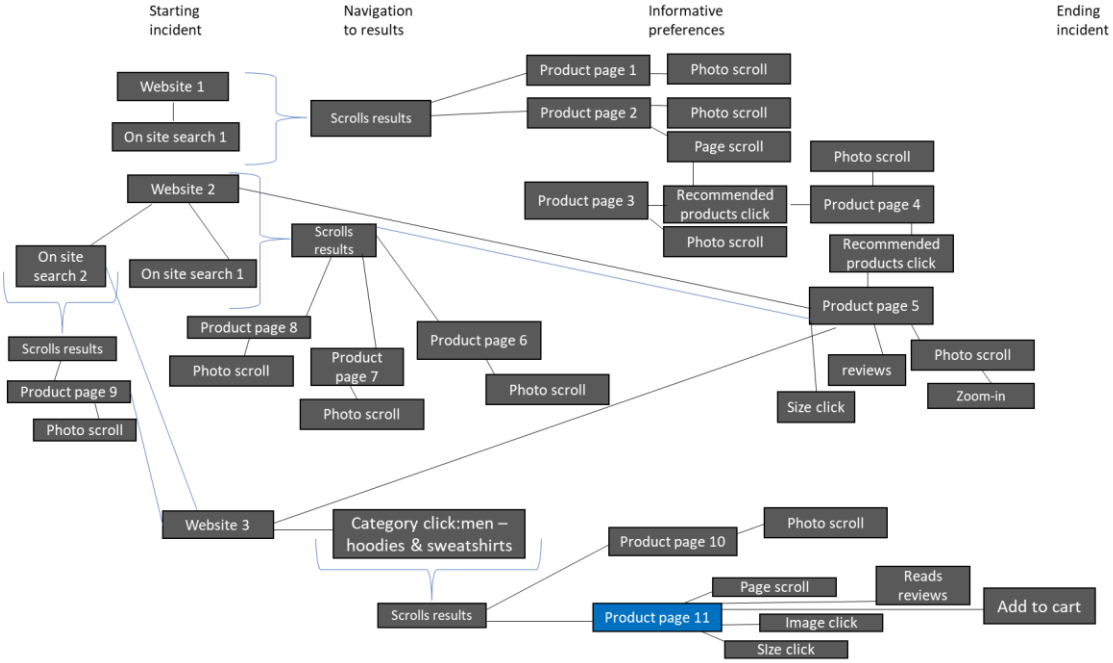
Source: own work.

Figure 30. Customer journey of the male participant no. 5



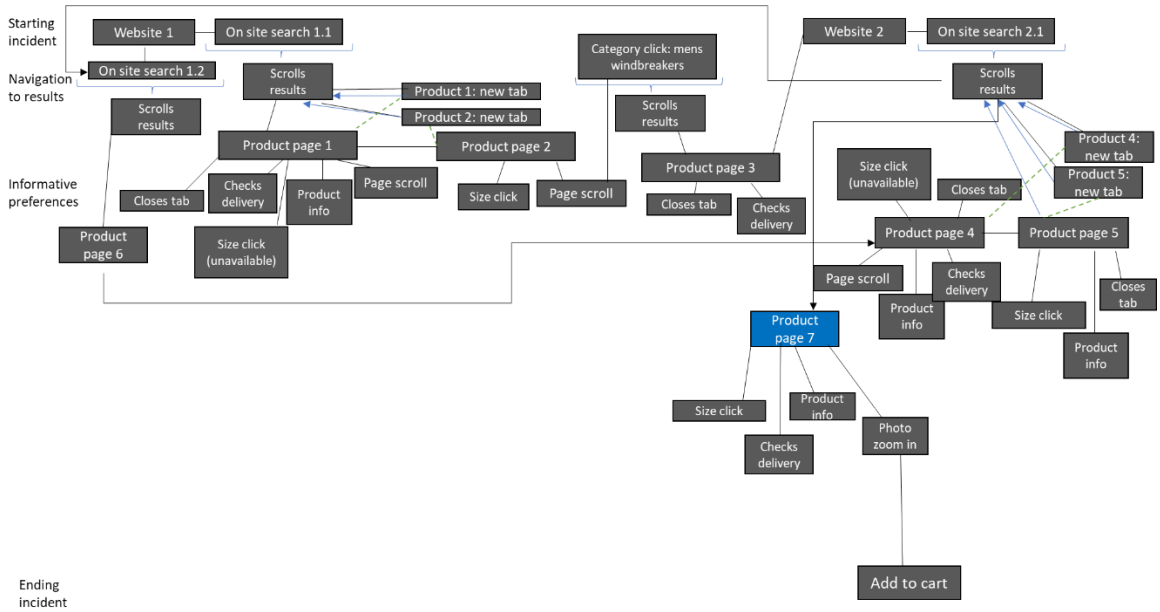
Source: own work.

Figure 31. Customer journey of the male participant no. 6



Source: own work.

Figure 32. Customer journey of the male participant no. 7



Source: own work.