

# Influence of privacy certification marks on the purchase intention of millennials on e-commerce and s-commerce websites

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## Preface

In front of you lies my thesis about the influence of privacy concerns on the purchase intention of online consumers on different types of websites. Finishing this thesis would not have been possible without the assistance and feedback of Dr. Lekkerkerk. Furthermore, I would like to thank all the respondents who took out the time to fill in the survey and help me collect the data I needed.

I would like to thank Manon van der Meijden, with whom I spent a lot of days in the library writing this thesis and who provided me many cups of coffee.

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Last but not least, I want to thank all of my family members for all their love and support the last six years. I would particularly like to thank my sister Lotte and my father and my mother, for always being there for me.

## Abstract

The last two decades, a lot of research has been done on the subject of privacy concerns of online consumers and how privacy concerns affect their purchase intention. Some research had been done on the subject of privacy certification marks and their effect on the purchase intention of online consumers. The effect of privacy certification marks on e-commerce websites remained enveloped in ambiguity. The last decade s-commerce has become increasingly impactful to e-commerce, therefore understanding how privacy concerns affect consumers social interaction and purchase intention on both s-commerce and s-commerce sites is crucial. Research on the effects of privacy certification marks on s-commerce websites has not been conducted so far.

The research question in this thesis is: What effect do privacy certification marks have on purchase intention of online consumers on e-commerce and s-commerce website?

The results of the research show that the privacy certification marks do not have a strong effect on the purchase intention of online consumers on different types of websites. This may be explained by the extensively researched 'privacy paradox'.

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# Chapter 1: Introduction

## 1.1. Privacy Concerns

*'You already have zero privacy. Get over it.'*

*– Scott McNealy, Chief Executive Officer, Sun Microsystems.*

With the rapid diffusion of the internet over the past twenty years, the topic of online privacy has received much attention (Caudill & Murphy, 2000). Internet users are concerned about online privacy and security problems (Yao, Rice & Wallis, 2007). Well-known examples in recent times of privacy scandals are the Cambridge Analytica fiasco and Mark Zuckerberg's (CEO of Facebook) congressional testimony. A lot of research has focused on how privacy concerns form barriers for e-commerce. Privacy and security concerns pose a real problem for online retailers, as they are the number one reason why users are not purchasing over the web (Berendt, Günther & Spiekermann, 2005).

In e-commerce consumers trust between customer and vendor can be built by developing privacy policies and integrating them into the website (Liu et al. 2005). Businesses mostly address the privacy concerns of consumers by posting their privacy policies on their website fully (Tsai, Egelman, Cranos & Acquisti, 2011). The last decade, e-commerce has changed significantly, social commerce (s-commerce) has become increasingly impactful on e-commerce (Wang & Herrando, 2019). S-commerce is the conduct of e-commerce activities in social networks. It is a subset of e-commerce that involves the use of social media (Turban, Bolloju & Liang, 2010). The phenomenon that privacy concerns pose a serious issue to online retailers on e-commerce websites becomes worse with s-commerce as s-commerce integrates tools that enable interaction and socialization such as: recommendation systems, rating options, discussion boards etc. The richness of social interaction entails a larger personal privacy threat because of the collection of more personal information (Wang & Herrando, 2019).

When it comes to s-commerce, consumers disclose more personal information than on e-commerce websites (Yu & Wang, 2017). Social media is changing everything about how people relate to each other in all aspects of life including e-commerce. It offers new forms of collaboration, trading and communication (Turban, Bolloju & Liang, 2010). For online retailers building trust is of crucial importance. To avoid potential losses stemming from customers mistrust in online shopping, the industry has developed a number of solutions to address the privacy concerns of online customers (Tsai et al., 2011). Several different privacy policies have been adopted by online businesses. The policies are designed to fill the information gap between the consumer and the retailer by providing an image of the information practices. However, these practices do not fully provide a solution to this issue. Most

privacy policies come with transaction costs, they are difficult to understand and time consuming to read (Tsai et al., 2011).

Another way online retailers have tried to deal with privacy concerns are privacy certification marks. Privacy certification marks authorities provide a set of guidelines and an enforcement mechanism to ensure that sites abide by a certain privacy policy (Rifon, LaRose & Choi, 2005). These privacy certification marks provide a solution to the aforementioned costs of other privacy policies. However, the empirical evidence about the effect of privacy certification marks is mixed (Moore & Dhillon, 2003). One of the main issues is that people inaccurately interpret the privacy certification marks by assuming it means that the company doesn't collect or share personal information of the customers (Rifon et al., 2005).

This study focuses on millennials because this group constitutes the majority of people who do online shopping and are active on social media. Gaining the trust of millennials is instrumental for the success or failure of online shopping (Jacobsen & Barnes, 2017).

The study seeks to compare the effect that privacy certification marks have on the purchase intention of millennials on e-commerce and s-commerce websites.

#### 1.1.2. Research Question and Aim of the Study

Resulting from the above the aim of the study is to investigate the effect that privacy seals have on the purchase intention of consumers of e-commerce and s-commerce websites.

*Research Question: What effect do privacy certification marks have on purchase intention of online consumers on e-commerce and s-commerce website?*

An answer to this question will be provided by developing a framework based on an extensive literature review. This framework will be tested in an experimental survey design.

### 1.2. Research Motivation

#### 1.2.1. Managerial Motivation

Research in the field of online privacy concerns is of great importance for a variety of reasons. Internet sales are becoming an increasingly large part of the total number of sales for retailers. A majority of internet users search for online product information and make daily online purchases (Chen, Beaudoin & Hong, 2017). Insight in the consumer decision-making process is essential for managers to increase sales. For managers in the field of online retail building the trust of consumers in the vendor is a focus point. To avoid losses that come from consumers mistrust, several privacy policies have been adopted by online businesses in e-commerce. The goal of these policies is to fill the gap of information that exists



between the consumers and the vendor by providing a picture of the information practices of the vendor (Milne & Culnan, 2004).

In business practice, perusing privacy policies also has its share of transaction costs for online retailers. Policies may be difficult to understand for customers and time consuming to read. Even when the policies are read, they are often not fully understood (Nowak & Ferrell, 2000). Because privacy certification marks may provide a solution to the aforementioned transaction costs it is an interesting subject to know more about for managers. Especially because the research conducted on the topic of privacy certification marks is not unambiguous. For managers in the field it is not clear if adding a privacy certification mark to an e-commerce website improves the trust customers have or if it does not have the desired effect of increased trust.

On s-commerce websites the effect of privacy policies, such as privacy certification marks is even more important. S-commerce shifts the e-commerce business model of product orientation more to a consumer-driven orientation (Huang & Benyoucef, 2013). The social media features that accompany s-commerce are perceived as a threat to the personal privacy of consumers (Wang & Herrando, 2019). Given the limited number of studies that have been conducted on privacy concerns in s-commerce more information is needed to tackle the problem of consumer mistrust in online retail. The effect of privacy certification marks on e-commerce compared to the effect of privacy certification marks on s-commerce are unknown. The results may provide fruitful insights for managers how to handle privacy concerns for customers on s-commerce.

### 1.2.2. Academic Motivation

The Marketing Science Institute 2016-2018 considers online privacy concerns such an important issue in online business that they have marked it a research priority. The past decade a considerable amount of research has been conducted on the influence of privacy concerns on online business. Research is conducted to discover the main factors that influence privacy concerns (Yao, Rice & Wallis, 2007). Several privacy policies were tested on effectiveness to suppress privacy concerns and build trust. Among those policies the effect of privacy certification marks on e-commerce websites have been tested. However, the evidence about the effectiveness of privacy certification marks is ambiguous. Moores (2005) found that consumers misunderstand privacy certification marks and interpret them the wrong way. However LaRose & Rifon (2006), found that privacy certification marks create more positive evaluations for customers and that privacy certification marks enlarge the trust of users in the website they are visiting. The effect of privacy certification marks on e-commerce thus remains unclear and needs further research.

S-commerce has evolved very quickly the last couple of years and has not been researched as extensively as e-commerce yet (Chia-Ying Li, 2017). The research that has been conducted has focused on design features and the mechanisms of s-commerce sites (Ahmad & Laroche, 2017). Privacy concerns on s-commerce websites have barely been addressed in research. The research in the area that has been conducted has focused on how concerns about privacy affects the social interaction behavior on s-commerce websites (Wang & Herrando, 2019). The effect of privacy certification marks on s-commerce websites on the purchase intention of customers has not been researched yet. The current study adds to the literature in several different ways. First, the precise effect of privacy certification marks on e-commerce must be clarified. Secondly, the effect of privacy certification marks on s-commerce websites has not been researched yet. The effect of privacy certification marks on the specific age group of millennials has not been specified in research as well.

### 1.3. Problem Statement

Currently, the effect of privacy certification marks on the purchase intention of millennials on e-commerce and s-commerce websites are surrounded by ambiguity. The effect of privacy certification marks on e-commerce websites are unclear and the effect of privacy certification marks on s-commerce are not researched yet. No theoretical framework has been developed on which the effect of privacy certification marks on e-commerce and s-commerce might differ. Once the theoretical framework has been established, it will be useful to find out what the effects of privacy certification marks on e-commerce and s-commerce websites are on the privacy concerns of customers on their purchase intention.

### 1.4. Contribution

This study contributes to both management practice and academic research as explained in paragraph 1.2. The number of online shopping transactions is growing (Nagra & Gopal, 2013). Therefore, it is becoming increasingly important for online retailers to understand what can be done about privacy and security concerns of consumers that limit further growth. The practical aim of this study is to provide managers with insight on the effects of privacy certification marks on their e-commerce and s-commerce websites so this knowledge can be used to reduce the negative effects of privacy concerns.

The research in this area has not yet been focused on the specific group of millennials. Millennials are an important group for online retailers to focus on, as they form the biggest group that shop online regularly (Wang & Herrando, 2019). Privacy certification marks may have a different effect on millennials specifically than on normally divided groups. This study aims to widen privacy-trust research in the context of e-commerce and s-commerce.

### 1.5. Approach

To provide an answer to the research question an extensive literature review will be conducted. Participants will be confronted with one or two images of either an e-commerce website with or without privacy certification marks or a s-commerce website with or without a privacy certification marks. Afterwards, the participants will be asked questions about how they perceive the webpage, their privacy concerns and their thoughts and expectations concerning the privacy certification marks. The results of the influence of privacy certification marks on e-commerce and s-commerce websites will be compared.

The study will now proceed as follows. In chapter 2 a review of the existing literature on the influence of privacy concerns on e-commerce and s-commerce and possible effects of privacy certification marks on those concerns. Thereafter, the research methods and the execution of the research will be discussed in chapter 3. Chapter 4 will contain an analysis of the results of survey. This is followed by the discussion in chapter 5 and a conclusion including the limitations of the study and the suggestions for further research in chapter 6.

## Chapter 2: Literature Review

### 2.1. Conceptual Part

In this paragraph, a synthesis of the existing literature on the effects of privacy concerns on online shopping and the effect of privacy certification marks will be discussed. First, background information on e-commerce and s-commerce will be provided (paragraph 2.1.1. and 2.1.2.). Paragraph 2.1.3. contains an overview of the differences between e-commerce and s-commerce. In paragraph 2.1.4 the effects of privacy certification marks on the buying behavior and purchase intention of customers will be discussed. Paragraph 2.1.5 elaborates on online privacy concerns and paragraph 2.1.6 provides more information about privacy certification marks. Paragraph 2.2. contains the hypothesis of this research. In paragraph 2.3 conceptual model of the research is presented.

#### 2.1.1. E-commerce

The internet has resulted in a shift in the practice of retailing, creating a shift in consumer and business behavior. This change has been so fundamental that it has been compared to the Industrial Revolution (Nisar & Prabhakar, 2017). E-commerce has enabled traditional business to achieve greater, faster and more economical results. The influence of e-commerce has made an impact on each aspect of human society, such as production, government function, law systems and education. As the term suggests, e-commerce refers to online commercial activities. There are various definitions of e-commerce. It is defined as the general term for exchange of information among enterprise and between enterprise and customers (Rayport & Jaworski, 2002). The global Information Infrastructure Committee defines it as the economic activities using electrical communications (Schneider, 2002). In a narrow sense, e-commerce refers to various online commercial activities focusing on exchanging processes by electronic methods by companies, factories, enterprises, industrial undertaking and consumers. In the broader sense, it refers to the electrification of all business among all industries. E-commerce consists of six fixed components: business, bank, commercial administration, distribution center, certification authority and the customer (Kim & Lee, 2002).

E-commerce falls into five distinctive categories: business to business, business to customers, business to governments, governments to governments and customers to customers. Given the scope of this research, e-commerce will be limited to business to customers e-commerce. In business to customer e-commerce, the internet is used to provide customers goods and services via websites. Various types of B2C websites spread all over internet to supply customers a variety of goods and services. This kind of online shopping allows customers to acquire further information on goods, shop around, purchase goods at the lowest costs and save shopping time without going outside (Rayport & Jaworski, 2002).

### 2.1.2. S-commerce

The internet has evolved from websites where people were limited to the viewing of content on websites to websites where people can create content by interacting and collaborating with each other. This user-generated content is called Web 2.0 (O'Reilly, 2005). An important part of Web 2.0 is called the 'Social Web' (Weber, 2009). This refers to websites that are designed to support social interaction. The objectives of those websites is to facilitate an interaction between users with similar tastes. Examples are blogs, video sharing platforms and social network sites (Taddicken, 2014).

Social media has changed the way people communicate. Social networking sites have become more popular and have created connections among internet users. This unleashes opportunities to create a business model that includes the social aspects to attract customers (Yusuf, Hussin & Busalim, 2018).

Three main concepts joined to form the s-commerce phenomenon: web 2.0 technologies, social media and e-commerce. Social media benefits commercial transactions of vendors by developing relationships with their customers. By enriching the quality of the relationship, the sales increase and the loyalty to the business is encouraged (Hajli & Lin, 2014). S-commerce changes the role of the customers as well. It has shifted e-commerce from being product-oriented to customer-oriented (Huang & Benyoucef, 2013).

S-commerce has several different definitions (Liang & Turban, 2011). In general it is defined as the use of internet based media to enable users to participate in selling, buying, comparing and sharing information about products and services in online marketplaces (Zhou et al., 2013). Sturiale & Scuderi (2013) defined it as an evolution of web 2.0 of online commerce by allowing more interactivity and more participation of customers. Liang & Turban (2011) define s-commerce as a subset of e-commerce that involves the use of social networks to support social interaction for the online buying and selling of products and services. Wu, Shen & Chang (2015) have defined social commerce as a word of mouth applied to e-commerce. Smith, Zhao & Alexander (2013) define s-commerce as the conduct of e-commerce activities using social media platforms to aid in encouraging customers to make online purchases.

The start of s-commerce activities occurred in the late 1990s. Two large e-commerce companies, Amazon and eBay, introduced features that enabled customer to write reviews on the products that they bought (Friedrich, 2015). With the emergence of web 2.0 e-commerce companies started to integrate technologies into their websites to provide a more interactive shopping experience for their customers (Curty & Zhang, 2011). The first academic article that stated the term 'social commerce' was in 2007 (Jascanu, Jascanu & Nicolau, 2007).

### 2.1.3. Differences between e-commerce and s-commerce

Some authors state that s-commerce is a subset of e-commerce. However, there are some key differences between the two business models (Sigala, 2015). S-commerce provides a more interactive environment to allow customers to share their information with friends and customers. In e-commerce, the customer is usually perceived as isolated and disconnected from a community while in s-commerce he is perceived as someone who interacts with a community of potential users (Huang & Benyoucef, 2013). S-commerce is about utilizing social media to create a relationship by creating a sense of shared values (Baghdadi, 2013). There are four main characteristics that give s-commerce its uniqueness: interactivity, collaboration, community and social aspect.

Interactive technologies have changed how firms relate to their customers online (Blasco-Arcas, Hernandez-Ortega & Jimenez-Martinez, 2013). The integration of those interactive technologies are based on the evolution of the internet in the last two decades. Consumer social interaction is critical part of s-commerce. The most used aspect of social interaction are online rating of products and reviews. When ratings and reviews are honest, this leads to better informed decisions of customers (Liang & Husain, 2013). The interaction also helps companies to receive feedback from their target customers. The social connections also provide opportunities for companies to encourage a positive word of mouth (Chow & Shi, 2015).

Customers are nowadays participating in business with active behavior. This environment has changed the behavior of users to become creators of content (Hajli, 2013). Engaged customers become partners of the sellers in the value-adding process to satisfying the needs of the other customers (Sashi, 2012).

One of the main difference between e-commerce and s-commerce is that s-commerce is community based (Stephen & Toubia, 2010). S-commerce provides a platform for people to connect with friends and conduct networking activities. The aim of the seller on s-commerce websites is to make customers to be advocates of the brand. The aim of the customer is to make an informed purchase decision. The community power of consumers is strengthened based on the information that they share.

S-commerce is built on several types of social media. Social support on social media is the key element that differentiates s-commerce from other forms of online commercial activities (Liang, 2011). Social support affects the customers intention to use s-commerce (Busalim, 2016). Customers who perceive social presence are willing to share more information about social activities (Zhang et al, 2014).

### 2.1.4. Privacy

There have been several attempts to define privacy, despite the many attempts, a simple account of privacy has yet to emerge (Buchanan, 2007). The scope of privacy is wide-ranging, extending over

information, activities, decisions, thoughts, bodies and communication. The broad scope and complex nature of privacy has resulted in a way of defining it through various dimensions.

Privacy can be defined as the right to self-determine which information is made accessible to whom and when (Westin, 1967). The degree of privacy that is pursued incorporates various aspects. An ideal degree of privacy is reached when the individual need for social interaction and the self-disclosure is brought in line with the need for their privacy (Altman, 1975).

De dimension 'informational privacy' relates to the right of a human being to determine how, when and to what extent information about them will be released to another entity. Central to this dimension is the desire to keep personal information out of the hands of others.

Consumer privacy is usually described as 'the right to be left alone'. It is related to solitude, secrecy and autonomy. Consumer privacy is a complicated issue when it is associated with the electronic marketplace. Privacy issues in this domain are associated with the unauthorized collection, disclosure and other personal information as a result of e-commerce transactions (Wang, Lee, Wang, 1998). There are two types of personal information on consumers: static private information. This includes referential information, historical financial information, health information, personal affiliations & personal documents. The other type of information is dynamic personal information. This type of information changes over time. When it is collected, a well-informed individual profile may be generated. It includes activity history and activity content (Wang et al., 1998).

Contextual integrity is a philosophical account of privacy in terms of the transfer of information. It is not a full definition of privacy but a normative model for evaluating the appropriateness between individuals and other entities (Barth & Datta, 2006). Social rules governing the flow of information are the starting place for understanding normative commitments to privacy. Four constructs are used to define the contextual integrity: informational norms, appropriateness, roles and principles of transmission. One of the key defining aspects of the judgement that the contextual integrity has or has not been violated is the type of information in question (Nissenbaum, 2004). 'Appropriateness' is a way to signal whether the type of information in question conforms to the relevant informational norms. As the label suggests, norms of appropriateness dictate what information about a person is appropriate to reveal in a particular context. The norms generally circumscribe the type of information that within a certain context is allowable, expected or even demandable. There is no place not governed by at least some informational norms (Wijesekera, Baokar & Hosseini, 2015).

In addition to appropriateness, another set of norms govern distribution of information. Societies are made up of several spheres, and each sphere is defined by a social good that is internal to them. Social goods are things like wealth, political office, honor, commodities, education, security, welfare and

employment (Nissenbaum, 2004). The social goods are distributed according to criteria that vary according to the spheres in which they operate. What matters is not only whether information is appropriate or not in a given context, but also if the distribution respects the contextual norms of the flows of information (Nissenbaum, 2004).

### 2.1.5. Online Privacy Concerns

Privacy concerns can be defined as ‘a sense of anxiety regarding one’s personal privacy’. The concerns relate to social privacy and institutional privacy (Raynes-Goldie, 2010). Social privacy refers to the use of personal information by other users of the social network. Institutional privacy refers to the concern about the use of personal information by the social network. Individuals are more likely to be concerned about institutional privacy (Nowak & Phelps, 1995).

Figure 1: Internet users who bought or ordered goods or services for private use in the previous year

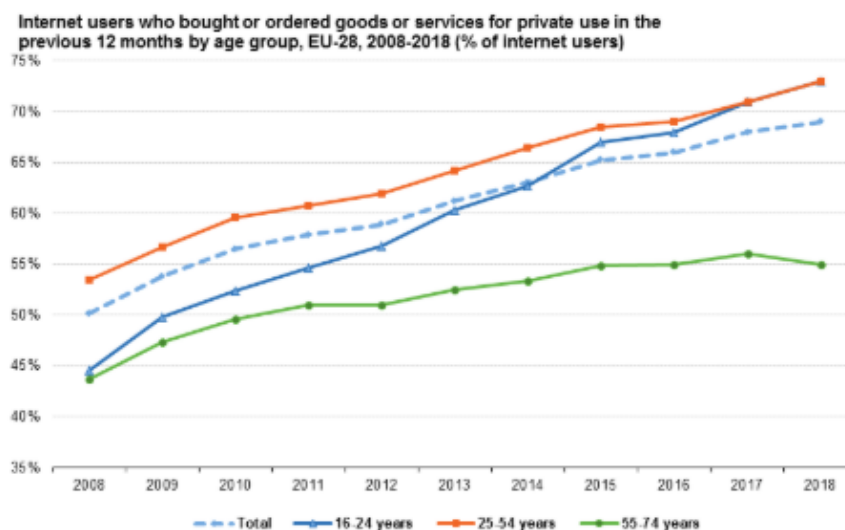
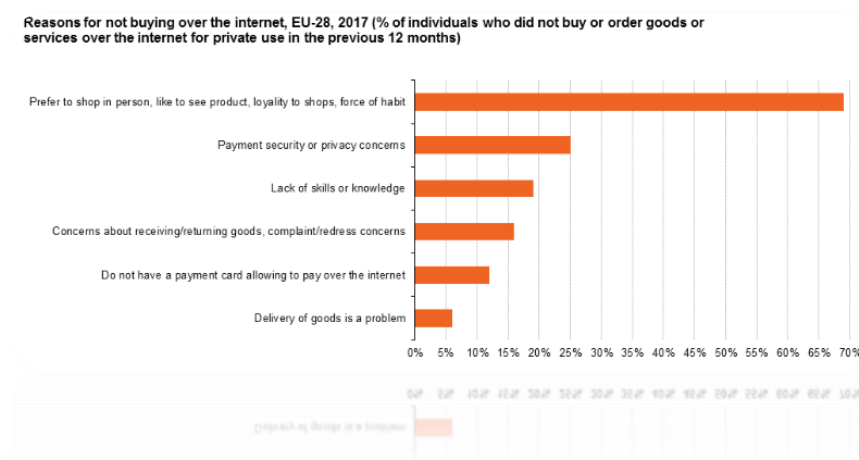


Figure 2: Reasons for not buying over the internet 2017



In Europe, almost seven out of ten internet users made online purchases in 2017. People aged 25 to 34 are the most active e-shoppers. Employees, the self-employed and students shop far more than internet



users who are retired or inactive. As can be seen in figure 2, payment security and privacy concerns form the second biggest reason for people not participating in e-shopping. Evidently, not all consumers are equally concerned about their privacy. Various factors influence the level of consumer concern. Sheehan & Hoy (2000) have distinguished various factors:

#### *Awareness of information collection*

Sometimes consumers are exactly aware of the information about them that is being collected by the website. A notice may provide information to access and consumers may give their permission to have the information collected to decline access to the website that is requesting the information. When users are not aware of information about them that is collected until they receive marketing communication are likely to have their privacy concerns increased (Nowak & Phelps, 1995).

#### *Information usage*

Another influence is how marketers use the information of the consumers. When the information is only used for the current transaction, customers are unconcerned about privacy. When marketers use the information for other purposes or sell the information to third parties, customers become more concerned (Ashworth & Free, 2006). Customers feel it is unacceptable for marketers to sell information about them. Lack of knowledge of secondary use of information causes objections among customers (Wang & Petrison, 1993). Internet users have indicated that they would be more willing to consider providing information when sites informed them on how the information is going to be used (Kehoe, Pitkow & Morton, 1997). Whether information was going to be shared with other parties was the most important factor influencing the decision of the customer to disclose their information.

#### *Information sensitivity*

Gandy (1993) defined information sensitivity as 'the level of privacy concern an individual feels for a type of data in a specific situation'. Sensitive information can be seen as any information that if shared, could cause harm to the subject of the information. (Sheehan & Hoy, 2000). The problem is that what type of information could be damaging to the subject of the information is sometimes unclear. There is variability in the range of information that causes genuine harm or simple annoyance. Sensitivity appears to be contextual: what is considered sensitive information differs by person and situation. In general, consumers appear to be less concerned about the collection of information about product purchases than for example medical records, social security numbers and financial information. (Sheehan & Hoy, 2000).

### *Familiarity with entity*

Closely related to the willingness of consumers to disclose sensitive information is the degree to which they trust the company that wants to gather their data (Rogers, 1996). People appear to make distinctions between marketers with which they are familiar and marketers with which they are not familiar.

### *Compensation*

Compensating consumers for the collection of information can change the hidden approach of a collecting entity into an apparent one. The compensation indicates an exchange of benefits from a situation. People consider the nature of the benefit that is offered in exchange for information when they decide if an activity violates their privacy (Sheehan & Hoy, 2000). Polls have found that shoppers will forgo privacy when they receive discounts beyond the regular discounts (Milne & Gordon, 1993).

Although surveys show that privacy is a primary concern for online shoppers in the digital age. Evidence suggests that individuals do not necessarily behave accordingly. Consumers are willing to trade their personal online browsing information for relatively small rewards (Kokolakis, 2017). Carrascal et al. (2013) found that internet users value their browsing history to be worth around 7 euros. The separation privacy attitude and actual behavior is called the 'privacy paradox' (Norberg & Horne, 2007). Because e-commerce and s-commerce websites are collectors of vast amounts of personal information, a proof of this privacy paradox would encourage them to increase the collection of personal information. This theory would mean that no privacy assurance on online shopping websites should not make a difference in the purchase intention of consumers, even though they claim that privacy assurance is important to them. Government policy makers justify privacy regulations by the raised privacy concerns consumers have. The inconsistency of online consumers weakens this justification (Kokolakis, 2017).

However, Tsai et al. (2011) have investigated whether or not prominently displayed privacy information causes consumers to incorporate considerations about their privacy in their purchasing decisions. It appears to be the case that even when a lack of privacy policy does not hold consumers back to make a purchase, prominently visible privacy information can be used strategically by a company. The display that the personal information of a consumer is protected can be used as a competitive advantage (Gellman, 2002).

#### 2.1.6. Privacy Certification Marks

To control online privacy concerns of consumers, three fundamental approaches have evolved over time: ensuring privacy through law, self-regulation and technical standards. European countries mostly rely on the force of law (Acquisti & Grossklags, 2004). This poses a large

challenge, regulation risks to always be behind the development of new technology, creating and financing appropriate control is difficult and imposing national data practices on other powers in the world proves rather challenging (Spiekermann, 2005). It is questionable to what extent regulation through law has the desired effect on the protection of consumers privacy.

The US has over the years pursued the more liberal approach of self-regulation of companies. Whether or not self-regulation to approach did have the desired effect on privacy concerns is unclear. In general, the public is skeptical about the efficacy of self-regulation for protecting privacy. The most common way of self-regulating is through third-party intervention. This is employed to provide trustworthiness to companies through membership of self-policing associations (Xu et al., 2012). Research has shown that companies that announce membership of self-policing associations foster the perceptions of the customer that they have control over their personal information (Xu, Zhou & Li., 2008).

If a privacy notice is not perceived as comprehensible it will be less likely to be read. Many online consumers experience frustration about the lengthy and legalistic documents these notices have become. When consumers perceive they can comprehend privacy notes they are more likely to trust the notices. Notices that are perceived by consumers to be very legalistic lead to skepticism in consumers (Milne & Culnan, 2004). However, when consumer perceive that they are able to comprehend the privacy notices, they are more likely to read notices across an array of situations and to trust the notices. (Milne & Culnan, 2004).

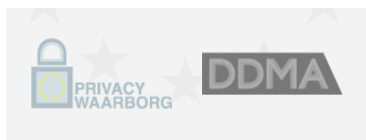
An effective way to avoid a comprehensible privacy notice is through privacy certification marks. A privacy certification marks is an identifiable symbol or logo, voluntarily displayed on a website, which graphically asserts that the site has implemented and complies with specified privacy practices (Miyazaki & Krishnamurthy, 2002) Certification marks authorities provide a set of guidelines and a voluntary enforcement mechanism to ensure that websites abide by the policy. The certification marks communicate a third-party authority designed to show customers that their personal information is protected as stated in their privacy policy (Rifon & LaRose, 2005). The companies that agree to abide by the approval standards are authorized to place a logo on their website (Miyazaki & Krishnamurthy, 2002). The privacy certification marks is located in one place on the website, the full privacy policy can be reached by clicking on the certification mark or the hyperlink (Milne & Culnan, 2004).

Underlying assumption of this focus on privacy certification marks is that people are conscious about their privacy and that they trust privacy statements and certification marks. Consequence is that the market force will lead to the survival of companies who abide by certain privacy protection standards. It is unclear to what extent privacy certification marks actually have the desired effect. Although the concept of certification marks of approval has existed for decades and have been sponsored by a variety

of organizations, the effect of internet certification marks of approval have received not much attention by academic researchers over the years (Miyazaki & Krishnamurthy, 2002).

Over the years, a handful of online privacy certification marks have emerged. The most dominant privacy certification marks programs are BBBOnline, TRUSTe and EuroPriSe. Dutch examples of privacy certification marks are DDMA Privacy Waarborg. Each certification marks has different roots, they are developed independently, awarded by organizations with different goals. The process to obtaining the certification marks differs as well. For a visitor, the objective of a privacy certification marks is to obtain assurance over the privacy practices of a website and develop an accurate perception of the website. The objective of the company with an e-commerce or s-commerce website is to give the user the perception of strong privacy assurance. Not all certification marks provide the same amount of privacy assurance. This is different from certification marks as the Dutch Thuiswinkel Waarborg, the goal of this certification mark is to assure consumers not only about their privacy, but about guarantees, payment and customer service as well.

*Figure 3: Image of Dutch Certification Mark – Privacy Waarborg*



Even though an the existence of an privacy certification marks does not necessarily mean better safety, it might still have the effect of lowering the perception of risk of consumers (Kerkhof & Van Noort, 2010). The presence of a certification mark leads to more favorable attitudes towards the privacy policy of the web store. LaRose and Rifon (2007) found that people who received a warning about their online privacy expected more negative outcomes, but only when the warning was not accompanied by a privacy certification mark. Only those who consumers who already perceived online risk were affected by the presence of the certification mark. The intention to disclose information about oneself is higher on websites that carry a privacy certification mark, compared to websites that don't carry a certification marks (Van Noort, Kerkhof & Fennis, 2008).

Paragraph 2.1.5. stated the factors that influence the amount of privacy concerns consumers experience online: awareness of information collection, information usage, information sensitivity, familiarity with entity and compensation. Not only does the use of privacy certification mark on a website effect the awareness of information collection of consumers. It also provides information about the usage of personal information and provides a sense of another sense of familiarity with the provider of the certification mark. The privacy certification marks therefore potentially have an effect on various factors that influence the degree of privacy concern of customers.

## 2.2. Hypotheses

In line with the existing literature, five hypotheses were formulated. Research has shown that a significant proportion of online consumers experience privacy concerns and that this phenomenon results in a decrease of the purchase intention of consumers on both e-commerce and s-commerce websites. The extent to which consumer privacy concerns influence the purchase intention of consumers also depends on the type of website they visit and whether or not on the website a privacy certification mark is present.

The phenomenon that online privacy concerns poses a threat to the purchase intention of consumers is worse on s-commerce websites than on e-commerce websites. This is because s-commerce websites integrate tools that enable interaction and socialization such as: recommendation systems, rating options, discussion boards etc. (Wang & Herrando, 2019). When it comes to s-commerce, consumers disclose more personal information than on e-commerce websites (Wang & Yu, 2017). Interaction on s-commerce websites encourage other consumers to purchase the products and services displayed on the website. The richness of social interaction entails a larger personal privacy threat because of the collection of more personal information (Wang & Herrando, 2019).

Even though explicitly placed privacy policies on a website does not necessarily mean that the privacy of consumers is handled better, it has the effect of lowering the perception of risk of consumers (Kerkhof & Van Noort, 2010). The presence of privacy policies leads to more favorable attitudes towards the policies of the website. Even when a lack of privacy policy doesn't hold consumers back to make a purchase on a website, prominently visible privacy information may be used strategically as a competitive advantage.

Privacy notes are more likely to get read when they are not lengthy and legalistic. When consumers feel they can comprehend the privacy notes they are more likely to trust the notes. Privacy certification marks are a way to signal to consumers that their privacy is protected. Underlying assumption of this is that people are aware of their privacy and that they trust the privacy notices.

*Hypothesis 1: Privacy concerns have a negative effect on the purchase intention of consumers on e-commerce websites.*

*Hypothesis 2: Privacy Concerns have a negative effect on the purchase intention of consumers on e-commerce websites with a certification mark.*

*Hypothesis 3: Privacy Concerns have a negative effect on the purchase intention of consumers on s-commerce websites.*

*Hypothesis 4: Privacy Concerns have a negative effect on the purchase intention on s-commerce websites with a certification mark.*

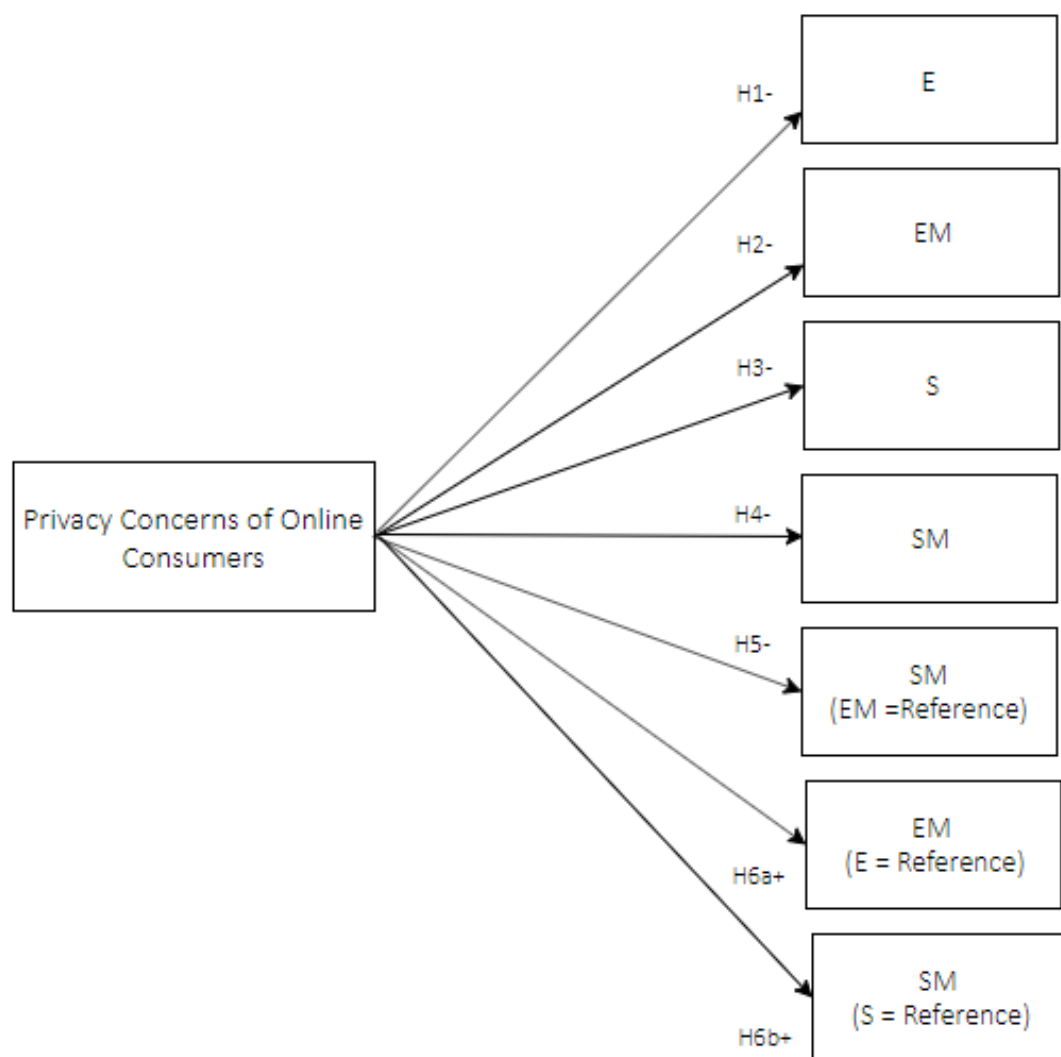
*Hypothesis 5: The effect of privacy concerns on purchase intention is greater on s-commerce websites with a certification mark than on e-commerce websites with a certification mark.*

*Hypothesis 6a: The effect of privacy concerns of e-commerce websites with certification mark on purchase intention of consumers is smaller than on e-commerce websites.*

*Hypothesis 6b: The effect of privacy concerns of s-commerce websites with certification mark on purchase intention of consumers is smaller than on s-commerce websites.*

### 2.3. Conceptual Model

The conceptual framework in figure 3 provides an overview of the assumed relation between the independent variable privacy concerns and the dependent variables of the purchase intention on e-commerce and s-commerce websites. The model will be tested with an survey experiment design in order to provide an answer if privacy seal programs have a positive influence on the privacy concerns of consumers and their purchase intention on various types of websites.



## Chapter 3: Research Design

The purpose of this study is to investigate how and if the use of privacy certification marks influence the privacy concerns of online consumers and their purchase intention on e-commerce and s-commerce websites. To provide an answer to the research question and test the hypotheses a quantitative approach is used. As the influence of privacy certification marks on the privacy concerns of online consumers has been researched before an exploratory approach is less appropriate. A quantitative research is suitable when a statistical analysis is required to measure relationships between different variables (Field, 2017). Quantitative research methods create an opportunity for the researcher to gain data from a large group of respondents. A large group of respondents is useful when the results of the research need to be generalized under a larger population (Babbie, 2010). A quantitative research can be replicated when the research standards are met and the results can be easily compared to similar studies (Singh, 2007). Another advantage of a quantitative research approach is that the researcher can keep a distance from the respondents, this avoids any form of personal bias (Field, 2017). The limitations to a quantitative research approach will be discussed in chapter 6.

This quantitative research is based on a survey experiment, designed to investigate the relationships between the variables in the conceptual model (Rockinson-Szapkiw, 2012). In the setting of an experiment, the variables are manipulated by the researcher. Advantage of this method is that the webpages that were presented were similar in lay-out and in products presented, the only parts of the webpages that vary are the variables in the research. Because the webpages have similarities, the reliability of the research increases. From the twelve created webpages, every participant was confronted with six of them, every type of webpage in two different manners. The participants are randomly assigned to two of the four different options in every product category. By conducting the experiment in the form of an online survey more participants can be reached, the larger sample size results in a higher external validity.

### 3.2. Survey Design

Participants took part in an online survey experiment consisting of three parts. All of the participants signed a letter of consent to make sure they understood the purpose of the research and the fact that they voluntarily participated before participating. After having answered some general questions about their age, gender and level of education in the first part, they were asked in the second part to judge several different images of webpages and answer to the question how likely it was that they would make a purchase on the presented webpage.

The third part of the survey asked participants about their privacy concerns and their trust in online retailers. The participants were asked how they felt about their online privacy with the help of multi-



item scale measurements (Hair, 2014). The reason for creating three types of webpages with a different lay-out and product is because the possibility that the attitude of consumers vary to different products or different designs of webpages.

First, since the attitude of consumers might be product-specific, the judgement of consumers might not be the same when presented with a different lay-out. Second, although the webpages and their design are fictional, participants might have pre-existing associations with a product or a story. To minimize any potential bias three different products were used.

### 3.3. Measurements

#### *Independent variable*

The dependent variable in this research (privacy concerns) were measured by using previously developed instruments. The existence of privacy concerns can be measured by measuring the need for privacy, the trust consumers have in web retailers and their perceived risk (Fortes & Rita, 2016).

	Item	Source	
1	I am concerned about my privacy when I use the internet	<i>Dinev &amp; Hart (2006)</i>	<i>Privacy</i>
2	I am concerned that I'm asked for too much personal information when I register or make online purchases	<i>Dinev &amp; Hart (2006)</i>	<i>Privacy</i>
3	I am concerned about people I don't know obtaining personal information about me from my online activities	<i>Dinev &amp; Hart (2006)</i>	<i>Privacy</i>
4	I am concerned that the privacy I submit on the internet could be misused	<i>Dinev &amp; Hart (2006)</i>	<i>Privacy</i>
5	I am concerned that a person can find private information about me on the internet	<i>Dinev &amp; Hart (2006)</i>	<i>Privacy</i>
6	I am concerned about submitting information on the internet, because it could be used in a way I did not foresee	<i>Dinev &amp; Hart (2006)</i>	<i>Privacy</i>
7	Web retailers are trustworthy	<i>Pavlou (2003)</i>	<i>Trust</i>
8	Web retailers keep their customer's best interest in mind	<i>Pavlou (2003)</i>	<i>Trust</i>
9	Registering online is risky	<i>Schlosser et al. (2006)</i>	<i>Risk</i>
10	It is riskier to shop online for a product than to shop offline for it	<i>Schlosser et al. (2006)</i>	<i>Risk</i>

Participants could rate their response to the above statements on a 7-point Likert scale (1=Strongly agree, 7=Strongly disagree).

### *Dependent variables*

The independent variables in this research are the purchase intention on e-commerce websites and the purchase intention on s-commerce websites. The purchase intention on both types of websites were measured by presenting an image of twelve types of webpages (appendix ii).

Frequencies scenarios:

	S-commerce	S-commerce + Mark	E-commerce	E-commerce + Mark
Book	61	61	61	62
Shoes	62	61	61	62
Laptop	61	60	61	62

When presented with these different images, participants were asked one question: *‘Given that you would like to purchase this book/these shoes/this laptop, how likely is it that you would purchase them on this website?’* Participants could rate their answer on a 7-point Likert scale (1=Extremely likely, 7=Extremely unlikely).

### 3.4. Research Ethics

In every scientific project the researcher needs to be aware of ethical principles. In social research this is especially the case, human interaction is after all an important factor. The researcher needs to take into consideration the ethical implications and be aware of his or her position in the research. In this paragraph, a couple of ethical issues regarding the issues will be addressed.

#### *1. The right of autonomy and self-determination of the participant*

To ensure that all participants did not feel forced to participate in the survey and were free to quit anytime, the first question (Q16) in the survey was devoted to that information and asked if participants could sign it (Appendix II). Q16 states the purpose of the research and the fact that all participants voluntarily took part in it and could stop any time without consequences.

#### *2. Respect for privacy and confidentiality*

In the same piece of information, participants were informed about the objectives of the research. They were also reassured that their answers would be treated confidential and anonymous. They were also informed that the results might be publicly available and may be used for other academic purposes.

### 3. *Positionality*

As a researcher, you have to be careful how you may influence the respondents of the survey and how others perceive you. The researcher tried to stay low profile while participants filled in the survey by staying a couple of meters away and not looking at their screen.

Also, the researcher is aware that the language and tone in het questionnaires might be different than when another person would have made the survey. This especially is the case with the images of the webpages that were designed by the researcher. To prevent ambiguity and confusion about the questions, the survey has been tested and improved by other students. Several students filled in the first draft of the survey to find if there was any haziness in the questions.

## Chapter 4: Results

In this chapter, the results of the research are reported. First, some information about the research sample will be provided. Later, the results of the quantitative analyses are reported.

### 4.1. Sample Choice

The data gained for this research has been retrieved by asking 121 respondents to participate in an online survey experiment of roughly four minutes. In this survey the participants were asked to answer several questions concerning themselves, images of various webpages and their personal privacy concerns. Three types of webpages were designed, all of which with or without certain elements. Every participant was confronted with two variations of each type of webpage.

The data collection took place in a two-week period in August 2019. Participants were randomly selected people, they were mostly approached offline. The few participants that were approached online were sent a link with the invitation over Whatsapp. The participants offline that were approached directly on the campus of the Radboud University Nijmegen in de Refter. As an incentive to take part in the research the participants were offered a small chocolate bar. All of the participants were students of a Dutch university or graduate school.

#### 4.1.1. Demographics

This section explains how the variables of the conceptual model have been measured in the online survey. First the demographic variables in the survey: gender, age and level of education, will be analyzed.

Education	Frequency	Percentage
Less than a high school diploma	0	0%
High school degree or equivalent	61	49,2%
College, no degree	3	2,4%
Bachelor's degree	48	38,7%
Master's degree	12	9,7%
Doctorate	0	0%
	124	100%
Gender	Frequency	Percentage
Male	36	29%
Female	88	71%
	124	100%

Age	Frequency	Percent
18	7	5,6%
19	17	13,7%
20	17	13,7%
21	25	20,2%
22	25	20,2%
23	15	12,1%
24	12	9,7%
25	6	4,8%
	124	100%

#### *Descriptive characteristics of the sample*

Although, respondents were randomly selected and randomly assigned to two images of webpages in each category, a large majority of the respondents of the survey were female. All of the respondents were students at a Dutch University. The respondents in my dataset therefore share similar characteristics like gender, highest level of completed education and age. Consequence of those similarities is that it threatens the external validity of the research, the results may not be applicable to all contexts. However, the current data sample can be used as an explorative one. The sample is, as mentioned, predominantly female (71%). The variable of gender has been measured by three categories (1=male, 2=female, 3=other). Every participant has entered either 1 or 2. Respondents were also asked about the highest level of school they had completed. 49,2% of the respondents answered that their highest completed level of school was their high school degree. 38,7% obtained a bachelor degree and 9,7% of the respondents obtained a master's degree.

All of the respondents were students, this explains the fact that all respondents were between 18 and 25 years old.

#### 4.2. Reliability and Validity of the Constructs

The independent variable in this research, privacy concerns can be regarded as a latent variable. It is impossible to measure this variable directly, because it has multiple facets, but we can measure these indirectly via the facets. Confirmatory factor analysis will be used to check if the survey questions indirectly measure the variables (Field, 2009).

First, A KMO-test and Bartlett's test of sphericity test is performed. These tests measure the strength of relationships among the variables. The KMO-test shows a value between 0 and 1. A KMO-test value of

.5 indicates that the correlation matrix equals the partial correlation matrix. The value should at least be .5 to be considered acceptable. Values greater than .8 can be considered as good. Bartlett's test of sphericity measures the equality of variances across groups against the inequality of variances for two groups. The test is used to see if the variables in the population are uncorrelated. Any value less than .05 is significant. The observed significance is .000.

We can conclude that the relationship between the variables is strong. Appendix iii. shows both the data of the KMO-test and the Bartlett's test of sphericity. Based on the data, it is allowed to proceed with the factor analysis.

#### **OBLIMIN-Rotated Principal Component Analysis: Reduced Set of Variables (Pattern Matrix)**

Reduced Set of 8 variables	Factor <sup>a</sup>
	Component 1
I am concerned about my privacy when I use the internet	.907
I am concerned that I'm asked for too much personal information when I register or make online purchases	.895
I am concerned about people I don't know obtaining personal information about me from my online activities	.912
I am concerned that the privacy I submit on the internet could be misused	.892
I am concerned that a person can find private information about me on the internet	.851
I am concerned about submitting information on the internet, because it could be used in a way I did not foresee	.897
Registering online is risky	.753

### **4.3. Regression Analysis**

The hypothesis in the conceptual model will be tested with regression analysis. Simple regression analysis is used to when you want to analyze the relationship between an independent variable and a dependent variable. With only one independent variable in the model, 121 respondents are more than enough (Field, 2009).

Hypothesis 5, 6A and 6B will be measured by using the reference category as control variable. Control variables are variables you are not particularly interested in, but the control variables are related to the dependent variables.

To find the effect of privacy concerns on the purchase intention on a certain type of website compared, the control variable is a way to find the effect of one type of website compared to another.

#### 4.4. Assumptions of Regression Analysis

Before doing a regression analysis, assumptions about the data used in the research need to be checked. Four assumptions have to be checked in order to perform a linear regression. The type of variables will also be tested, this will be added as an extra fifth assumption. The four main assumptions are: normal distribution, multicollinearity, homoscedasticity and linearity.

The first assumption that will be tested are the type of variables. The variables of both analysis need to be quantitative. All the variables, dependent and independent should be measured at the continuous level and need to be interval. For measuring the purchase intention on the s-commerce and e-commerce website, a seven-point Likert scale was used. This is an ordinal scale that can be seen as an interval scale. Likert scales can be used as interval scales, therefore it will be treated as an interval scale in this research. This assumption is met, the type of variables in the research are fine.

The second assumption that needs to be checked is the normal distribution of the data. To test this assumption, the skewness and kurtosis need to be checked. There is a normal distribution of the data when the value of the skewness and kurtosis are within -2 and 2. For the kurtosis, the range may even be a bit wider (George & Mallery, 2010).

##### Skewness and Kurtosis

	Privacy Concerns	Purchase Intention SM	Purchase Intention S	Purchase Intention EM	Purchase Intention E
Skewness	.804	1.421	1.020	.791	.469
Std. Error of Skewness	.064	.064	.064	.064	.064
Kurtosis	.229	3.679	.450	.1635	.260
Std. Error of Kurtosis	.128	.128	.128	.128	.128

The third assumption is about multicollinearity. Independent variables in a model should not correlate highly. The relationship between independent variables should not be linear. The conceptual model of this research has just one independent variable 'Privacy Concerns'. For that reason, multicollinearity cannot be detected.

The fourth assumption contains the presence of homoscedasticity. The scatterplots of the dependent variables can be found in Appendix E.

Last, the fifth assumption is about linearity. This means that there is a relationship between the dependent and independent variables. To test the assumption, we need to examine residual plots. When the plot shows points that lie around the zero line, there is linearity. There should not be a clear pattern. In the scatterplots in appendix iii can be seen that there is linearity.

#### 4.5. Results Linear Regression Analysis

In this paragraph, the results of the linear regression analysis will be presented in tables. Below the table, the plotted results will be interpreted to make a statement about the hypothesis.

Coefficients <sup>a</sup> Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.	95% Confidence Interval B	Upper Bound
						Lower Bound	
Constant	3.825	.457		8.366	.000	2.920	4.731
PrivacyConcerns	.036	.087	.039	.412	.681	-.137	.209
Gender	-.073	.192	-.035	-0.379	.705	-.452	.307
Age	-.011	.065	-0.020	-.162	.871	-.139	.118
Education Level	-.043	.106	-.051	-.403	.688	-.252	.167

*Hypothesis 1: Privacy concerns have a negative effect on the purchase intention of consumers on e-commerce websites.*

The t-value is about the relationship between the independent variable with the dependent variable. The T-value in this regression is .412, which leads to a significance of .681. Privacy concerns are not significant at a 5% level. Privacy concerns do not have a significant impact on the purchase intention on e-commerce websites. Neither of the control variables have a significant effect on the purchase intention on e-commerce websites. The hypothesis is rejected.

Coefficients <sup>a</sup> Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.	95% Confidence Interval B	Upper Bound
						Lower Bound	
Constant	2.434	.423		5.758	.000	1.597	3.271
PrivacyConcerns	.116	.081	.133	1.445	.151	-.043	.276
Gender	.088	.177	.046	.500	.618	-.262	.439
Age	-.095	.060	-.197	-1.589	.115	-.214	.024
Education Level	0.96	.098	.121	.977	.331	-.098	.289



*Hypothesis 2: Privacy Concerns have a negative effect on the purchase intention of consumers on e-commerce websites with a certification mark.*

T-value is about the relationship between the independent variable with the dependent variable. The T-value is .1445 which leads to a significance of .151. Privacy concerns are not significant at a 5% level. That means that privacy concerns do not have a significant impact on the purchase intention on e-commerce websites with a privacy certification mark. Neither of the control variables have a significant effect on the purchase intention on e-commerce websites with certification mark. The hypothesis is rejected.

Coefficients <sup>a</sup> Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.	95% Confidence Interval B Lower Bound	Upper Bound
Constant	3.648	.499		7.304	.000	2.659	4.638
PrivacyConcerns	-.387	.095	-.357	-4.060	.000	-.575	-.198
Gender	.152	.209	.063	.724	.470	-.263	.566
Age	.039	.071	.065	.546	.586	-.102	.179
Education Level	.042	.116	.043	.366	.715	-.187	.271

*Hypothesis 3: Privacy Concerns have a negative effect on the purchase intention of consumers on s-commerce websites.*

T-value is about the relationship between the independent variable with the dependent variable. The T-value is -4.060. This leads to a significance of .000. Privacy concerns are significant at a 5% level. That means that privacy concerns have a significant impact on the purchase intention on e-commerce websites with a privacy certification mark. Neither of the control variables have a significant effect on the purchase intention on s-commerce websites. The hypothesis is accepted.

Coefficients <sup>a</sup> Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.	95% Confidence Interval B Lower Bound	Upper Bound
Constant	2.643	.361		7.312	.000	1.927	3.359
PrivacyConcerns	-.081	.069	-.109	-1.171	.244	-.217	.056
Gender	.119	.151	.072	.784	.435	-.181	.419
Age	-.001	.051	-.001	-.012	.991	-.102	.101
Education Level	-.019	.084	-.028	-.224	.823	-.185	.147

*Hypothesis 4: Privacy Concerns have a negative effect on the purchase intention on s-commerce websites with a certification mark*

T-value is about the relationship between the independent variable with the dependent variable. The t-value is -1.171, which leads to a significance of .244. In this case, privacy concerns are not significant at a 5% level. That means that privacy concerns do not have a significant impact on the purchase intention on s-commerce websites with a privacy certification mark. Neither of the control variables have a significant effect on the purchase intention on s-commerce with certification mark websites. The hypothesis is rejected.

Coefficients <sup>a</sup> Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.	95% Confidence Interval B Lower Bound	Upper Bound
Constant	1.776	.374		4.746	.000	1.035	2.517
PrivacyConcerns	-.122	.063	-.165	-1.925	.057	-.248	.004
Gender	.087	.138	.053	.630	.530	-1.87	.361
Age	.033	.047	.082	.705	.483	-.060	.127
Education level	-.053	.077	-.079	-.688	.493	-.205	.099
Purchase intention e- commerce + mark	.356	.072	.421	4.915	.000	.213	.500

*Hypothesis 5: The effect of privacy concerns on purchase intention is greater on s-commerce websites with a certification mark than on e-commerce websites with a certification mark.*

T-value is about the relationship between the independent variable with the dependent variable. The t-value is -1.925, which leads to a significance of .057. In this case, privacy concerns are just not significant at a 5% level, although it is very close. That means that privacy concerns have a marginal significant impact on the purchase intention on s-commerce websites with a privacy certification mark. The control variable of the purchase intention on e-commerce websites does have a significant effect. This means that the purchase intention on e-commerce websites with a privacy certification mark is stronger than on s-commerce websites with a privacy certification mark. The hypothesis is accepted.

Coefficients <sup>a</sup> Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.	95% Confidence Interval B Lower Bound	Upper Bound
Constant	1.815	.416		4.357	.000	.990	2.640
PrivacyConcerns	.007	.070	.010	.101	.920	-.132	.146
Gender	.084	.145	.051	.582	.565	-.202	.371
Age	-.009	.049	-.023	-.192	.848	-.106	.088
Education level	-.028	.080	-.043	-.355	.723	-.187	.130
Purchase intention commerce	s- 227	.064	.333	3.544	.001	.100	.354

*Hypothesis 6a: The effect of privacy concerns of e-commerce websites with certification mark on purchase intention of consumers is smaller than on e-commerce websites.*

T-value is about the relationship between the independent variable with the dependent variable. The t-value is 1.400, which leads to a significance of .164. In this case, privacy concerns are not significant at a 5% level. That means that privacy concerns do not have a significant impact on the purchase intention on s-commerce websites with a privacy certification mark. Neither of the control variables have a significant effect on the purchase intention on s-commerce with certification mark websites. The hypothesis is rejected.

Coefficients <sup>a</sup> Model	Unstandardized B	Coefficients Std. Error	Standardized Coefficients Beta	T	Sig.	95% Confidence Interval B Lower Bound	Upper Bound
Constant	2.038	.534		3.816	.000	.980	3.096
PrivacyConcerns	.113	.081	.129	1.400	.164	-.047	.272
Gender	.096	.177	.050	.543	.588	-.254	.446
Age	-.094	.060	-.195	-1.574	.118	-.213	.024
Education level	.100	.098	.127	1.023	.308	-.094	.294
Purchase intention e- commerce	.103	.086	.110	1.208	.230	-.066	.273

*Hypothesis 6b: The effect of privacy concerns of s-commerce websites with certification mark on purchase intention of consumers is smaller than on s-commerce websites*

T-value is about the relationship between the independent variable with the dependent variable. The t-value is .101, which leads to a significance of .920. That means that privacy concerns do not have a significant impact on the purchase intention on s-commerce websites with a privacy certification mark. The control variable of the purchase intention on e-commerce websites does have a significant effect

of .001. This means that the purchase intention on s-commerce websites is stronger than on s-commerce websites with a privacy certification mark. The hypothesis is rejected.

#### 4.6. Summary Results

In the table below, the results of the performed regression analysis are summarized and presented schematically.

Hypothesis	Description	Result
1	Privacy concerns have a negative effect on the purchase intention of consumers on e-commerce websites	<i>Rejected</i>
2	Privacy Concerns have a negative effect on the purchase intention of consumers on s-commerce websites	<i>Rejected</i>
3	Privacy Concerns have a negative effect on the purchase intention of consumers on e-commerce websites with a certification mark	<i>Accepted</i>
4	Privacy Concerns have a negative effect on the purchase intention on s-commerce websites with a certification mark	<i>Rejected</i>
5	The effect of privacy concerns on purchase intention is greater on s-commerce websites with a certification mark than on e-commerce websites with a certification mark.	<i>Accepted</i>
6a	The effect of privacy concerns of e-commerce websites with certification mark on purchase intention of consumers is smaller than on e-commerce websites	<i>Rejected</i>
6b	The effect of privacy concerns of s-commerce websites with certification mark on purchase intention of consumers is smaller than on s-commerce websites	<i>Rejected</i>

## Chapter 5: Discussion

This study aimed to contribute to both management practice and academic research as explained in paragraph 1.2. The number of online shopping transactions is growing (Nagra & Gopal, 2013). Therefore, it is becoming increasingly important for online retailers to understand what can be done about privacy and security concerns of consumers that limit further growth. The practical aim of this study is to provide managers with insight on the effects of privacy certification marks on their e-commerce and s-commerce websites so this knowledge can be used to reduce the negative effects of privacy concerns.

From an academic perspective, several gaps in the literature were found and addressed in paragraph 1.2.2. The first aspect that remains unclear is the effect of privacy certification marks on privacy concerns on e-commerce websites. Researches that have been conducted on this subject contradict each other (LaRose & Rifon, 2007; Moores, 2005). This thesis measured the reaction of consumers to privacy certification marks on e-commerce websites to clarify this effect.

The research in this area has not yet been focused on the specific group of millennials. Gaining the trust of millennials is instrumental for the success or failure of online shopping, because they form the biggest group that shops online regularly. (Jacobsen & Barnes, 2017; Wang & Herrando, 2019). This is the reason this research specifically focused on millennials, which had not been done before.

However, privacy certification marks may have a different effect on millennials specifically than other age groups. To make more general statements about the effect of privacy concerns on the purchase intention on different types of websites, more age groups should be included in further research.

Research on the effects of privacy certification marks on s-commerce websites has not been conducted so far. If and to what extent privacy certification marks have an effect on the privacy concerns of consumers on s-commerce websites is unknown. This study did research the effects on s-commerce websites specifically.

### 5.1. Data collection

In the survey, every respondent was asked to judge six images of webpages and answer one question. There were four types of variables in the research. Because there were twelve scenario's in the survey, each respondent judged six random images. This was done to make sure the survey was short so that respondents would be motivated to finish it.

After the survey was conducted, this appeared to be a design flaw because the six questions the respondents answered were random. This means that not all types of webpages were judged by all the respondents. This made conducting the planned statistical analysis a challenge. To solve this problem, the average score of a respondent on a certain type of variable was calculated and filled in the missing

value. If a respondent didn't have an average score on a certain type of variable, the average score of all the other respondents on that type of variable was used. That way the score of that respondent on that type of website was the least far of the expected score that was to be expected. Consequence of this approach is that some scores were calculated based on three data points while other scores were based on one data point.

Another issue that arose because of the design flaw in the survey, was that the conceptual model needed to be changed. This caused some difficulties in measuring the last three hypothesis. With help of dr. Ligthart it was decided to measure the last three hypothesis as three separate simple regression analysis with the reference categories as control variables.

The way the data were collected in this research influences the reliability and validity of this research. Half of the collected data were calculated means of other data points of the respondents. This has a negative impact on both the reliability and validity of the research.

For these reasons this research can be seen as an exploratory study. The results may be interpreted as a first orientation on the subject. Other research is necessary to be able to make statements about the formulated hypothesis with more certainty.

## 5.2. Statistics

In the regression analysis a confidence interval of 95% was used for the coefficients. The confidence intervals are related to the p-values, the p-values will not be statistically significant at  $\alpha=.05$  if the 95% confidence interval includes zero. The confidence intervals help to put into perspective how much the value could vary.

The criterion of 95% confidence, or a .05 probability forms the basis of modern statistics. It is the most used confidence interval (Field, 2009), this is the reason it is used in this research as well.

## 5.3. Effect of privacy certification marks

In this study, the effect of privacy certification marks on the purchase intention was studied. Previous research on this subject has shown that the presence of privacy certification marks lowers the risk perception of consumers and that the presence of these marks leads to a more favorable attitude towards the privacy policy of the website (Kerkhof & Van Noort, 2010). Another finding in previous research was that consumers who were visiting websites that carry a privacy certification mark were more likely to disclose information about themselves (Van Noort, Kerkhof & Fennis, 2008).

As mentioned in paragraph 2.1.6. a privacy note has to be perceived as comprehensible, otherwise customers will not be likely to read it. The purpose of a privacy certification mark is to take away the

legalistic documents that privacy notification can become. When consumers perceive that they can understand privacy notes they are more likely to trust the notes. Notices that are perceived by consumers to be very legalistic lead to skepticism in consumers (Milne & Culnan, 2004). A way to make a privacy note comprehensible is through privacy certification marks. Several privacy certification marks have emerged over the years. The marks have different roots, are developed interdependently and are awarded by organizations with different goals. We know that the existence of privacy certification marks lowers the risk perception of customers (Kerkhof & Van Noort, 2010) but the marks offer different kinds of assurances. Consumers attribute more assurance to the seals than they should (Kerkhof & Van Noort, 2010). The consumers awareness of what internet seals actually mean is low. Most consumers don't recognize the seals that are used most often on the internet (Kim, Ferrin & Rao, 2008). The trust of online consumers in privacy seals may change if more consumers realize what a seal means.

Another aspect that might influence the perception of consumers is that many popular online firms (for example amazon.com) don't participate in privacy seal programs. This may lead to the idea that only firms who need to externally validate their privacy practices will participate in these programs. For consumers this would imply that licensees of privacy certification programs have worse online privacy practices than non-licensees (Miyazaki & Krishnamurthy 2002).

Another element in the research of the effect of privacy certification marks that remains unclear is the specific effect of the type of privacy mark that is shown on the website. Possibly marks that are well known have more of the desired effect. BBBOnline and TRUSTe are logo's from the United States, EuroPriSe is European and Privacy Waarborg is Dutch. Whether or not a consumer recognizes a logo and can therefore accurately interpret what the logo means is important to know if the logo itself has an effect on the privacy perception of consumers. Whether or not consumers have an idea of what the logo means has to do with the design of the logo as well. Even if customers have never seen the logo of EuroPriSe before, because the words 'European Privacy Seal' are incorporated in the logo, customers have some idea of what the logo is for. Other logo's don't have the word 'privacy' explicitly mentioned in it. This may cause more questions for customers if they don't recognize the logo. This may have an influence on the effect of the privacy certification seals as well. In this thesis, logo 3 was used, in the logo the word 'privacy' is shown, as well as a large letter 'P'. It is likely that customers immediately understood that the logo had something to do with the privacy policy of the webshop and that their privacy was in some way protected.



Image 1: The word 'privacy' is explicitly mentioned

Image 2: The word 'privacy' is not explicitly mentioned

Image 3: The privacy certification mark that is used in this thesis, with the word 'privacy' mentioned small but explicitly

Privacy certification marks that are actually placed on websites require each of their licensee's to place a logo of their seal on the website that acts as an hyperlink. On the website of the organization that awarded the website the privacy certification mark. On this website the consumer can read what the mark means and what the minimum privacy protection is that the licensee offers. In this research, the images of the webpages that were constructed didn't involve a hyperlink. Respondents of the survey didn't have the option to click on the mark and therefore read more about the privacy policies that the mark represents.

Where the privacy certification mark on the website is placed may have an effect as well. It is placed prominently on the website or at the bottom of the page, how large is the mark that is displayed? These decisions that make a mark more or less notable aren't standardized but may as well be important.

#### 5.4. Privacy paradox

The hypothesis that people have a higher purchase intention when there is a privacy certification mark on a website when they worry about their online privacy is based on the assumption that individuals make privacy decisions rationally. However, research has shown that human decision-making is affected by biases (Acquisti & Grossklags, 2007). These biases include optimism bias, this is the tendency of people to believe that the risk of experiencing something negative is smaller than in other individuals (Sharot, 2011).

Brown (2001) was the first to uncover something paradoxical in privacy behavior. While customers expressed concerns about their privacy online they were willing to give personal information in exchange for perceived benefits. This was the first indication that even though internet users say that privacy is a high priority for them, they do not behave accordingly. This 'intention-action gap' is also seen in the market for sustainable products, people say they want them, but do not tend to buy them (White, Hardisty, Habib, 2019). The related decisions towards privacy are affected by incomplete information, bounded rationality and psychological biases such as confirmation bias, hyperbolic discounting and others (Kokolakis, 2017).



The privacy paradox has been researched extensively to find an explanation for the phenomenon. Unfortunately, the research provides us with contradicting results and incomplete explanations for these results (Kokolakis, 2017). It remains unclear if the privacy paradox actually exists. Several researchers have provided evidence that raise doubts about the existence of the privacy paradox. Privacy behavior is a highly contextual phenomenon (Morando et al., 2014). This is because there are differences in the type of information that is collected and there are differences in the use of the collected information.

The collection of personal information doesn't always mean the same thing, there are several types of personal information. Consumers attribute different valuations to the different types. Sensitivity of information is an important moderator that is neglected several major researchers. Data like age, weight, health status and location differ in sensitivity from data about purchase history. Mothersbaugh et al. (2012) suggest that the concept of the privacy paradox may even result from a failure to account for the information sensitivity in the research.

Similarly, there are several types of privacy concerns as well, such as concerns about third-party use of data, improper access by employees or the public and social threats such as bullying and stalking (Krasnova et al., 2009).

This study seeks to understand more about the effect of privacy concerns on the purchase intention of millennials on different types of e-commerce and s-commerce websites. To fully understand what influence the privacy concerns and the purchase intention of consumers, a better understanding of the workings of the privacy paradox is required.

## Chapter 6: Conclusion

### 6.1. Introduction

The research question in this research was formulated as:

What effect do privacy certification marks have on the perceived privacy of consumers on e-commerce and s-commerce websites with and without privacy certification marks?

To answer the question, seven hypothesis were formulated. The hypothesis were measured by using linear regression analysis. In this chapter, results of the hypothesis will be linked to the main research question of the research. As mentioned in paragraph 5.1, the research can be viewed as an exploratory study. The results may be interpreted as a first orientation on the subject. Further research will be necessary to make statements about effects of privacy certification marks with more certainty. Furthermore, recommendations for managers will be formulated based on the conclusions. In paragraph 6.3, suggestions for further research will be made.

### 6.2. Conclusion

To answer the research question, seven hypothesis were formulated. The hypothesis were based on the literature on privacy certification marks and the effect that the privacy certification marks have on perception of customers.

	Hypothesis	Result
1-	Privacy Concerns → Purchase intention e-commerce	Rejected
2-	Privacy Concerns → Purchase intention s-commerce	Rejected
3-	Privacy Concerns → Purchase intention e-commerce + mark	Accepted
4-	Privacy Concerns → Purchase intention s-commerce + mark	Rejected
5-	Privacy Concerns → Purchase intention s-commerce + mark > e-commerce mark	Accepted
6+	Privacy Concerns → Purchase intention e-commerce + mark < e-commerce	Rejected
6+	Privacy Concerns → Purchase intention s-commerce + mark < s-commerce	Rejected

As can be seen in the table, only hypothesis 3 and 5 were accepted. This means that privacy concerns have a negative effect on the purchase intention of online consumers on e-commerce websites with a privacy certification mark and that the effect of privacy concerns on the purchase intention is greater on s-commerce websites with a certification mark than on e-commerce websites with a certification mark.

Based on the results of the hypothesis the research question can be answered. Based on this research the effect of privacy certification marks on the perceived privacy of consumers on e-commerce and s-commerce websites with and without privacy certification marks is minimal. Expectations based on the literature were largely not confirmed in this research. These results were unexpected. There are several possible explanations for why most of the hypothesis have been rejected.

In previous studies to privacy certification marks several studies concluded that the presence of privacy certification marks lead to more favorable attitudes towards the privacy policies of the website. However, in the literature about the privacy certification marks there was some division. Some studies did not find an effect of privacy certification marks at all. Underlying assumption in the research about the privacy certification marks it that people are generally conscious about their privacy and that they trust the given privacy certification marks. In the previous literature on this subject it remained unclear whether or not this assumption is correct.

The unexpected results may as well be explained by the previously mentioned 'privacy paradox'. The phenomenon in which people say they care about their privacy but in reality do not behave accordingly. This would explain why people say that they care about their privacy but the presence of the privacy certification marks on several different websites don't have a significant effect on their purchase intention.

Another explanation is the way the data were gathered for this research. As mentioned in paragraph 5.1, the error that was made in the survey had the effect that some corrections had to be made in the dataset to perform the necessary analysis. Because some of the missing data points were calculated by the results of the other datapoints that were gathered, this may have influenced the end results.

#### 6.2.1. Practical implications

Insight in the decision-making process of online consumers is essential for managers to increase sales. To avoid the losses that come from the mistrust of consumers, several different privacy policies have been adopted to online businesses. Traditional privacy statements have proved to have certain disadvantages. They can be time consuming to read and difficult to understand. Privacy certification marks were considered as a possible solution to this issue. Based on this research, the effects of privacy certification marks have been small. Using privacy certification marks do not have a significant positive effect on the purchase intention of consumers.

#### 6.2.2. Suggestions for further research

The last two decades, marketing research has focused on privacy concerns of online consumers a lot. The effect of privacy certification marks has been researched, but the results of these researches differ.

Some researchers state that that privacy certification marks have a strong effect on the perception of consumers of a website and their privacy policy, therefore increasing their purchase intention on a website. Other research suggests that privacy certification marks have little effect on the purchase intention of consumers. Further research on the effects of privacy certification marks is needed to provide a more definitive conclusion.

What hasn't been researched much yet is the effect of privacy concerns on different types of websites, for example the difference of the effect on e-commerce websites and s-commerce websites. This thesis has focused on the difference between e-commerce and s-commerce websites and can results can be viewed as a first orientation on the subject. In further studies it would be interesting to take a closer look at any differences between the two types that may exist.

Another aspect that might be interesting to research is information sensitivity. The images of the websites that were judged in the survey of this research all had to do with information about product purchases. Most customers do not regard information about their product purchases as sensitive. It would be interesting to find out if the effect of privacy certification marks is stronger on websites that collect more sensitive information, such as medical records or financial information.

As mentioned before in paragraph 5.3, the effect of different types of marks from different organizations has not been researched yet. It remains unclear whether more known privacy certification marks have a different effect of the purchase intention of online consumers than less known privacy certification marks. The role that the design and the placing of the mark plays in this process is unknown as well.

The privacy certification marks that were researched in this thesis were privacy certification marks that were developed by organizations through the liberal approach of self-regulation. Research has shown that the public is skeptical about the efficacy of self-regulation for privacy protection. Other research on the subject could focus on privacy regulation through law. While there are concerns whether or not the protection through law has the desired effect of protecting the privacy of consumers, it might create a different perception among consumers.

As mentioned before, this research has focused only on people who are 25 years of age or younger. The group of respondents was predominantly female and highly educated. The results of this research may be different if the group of respondents is more varied.

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# Appendices

## Scenario's in Survey

### Computers

computernijmegen.nl

Hardware	PC	Notebook	Telefoon	Gaming	Televisies	Audio
Witgoed	Mooi & Gezond	Tuin	Klussen	Camera	Outdoor	Speelgoed

Waar ben je naar op zoek?



**HP LAPTOP 15-DA1100ND**  
**€529**

Ⓢ Dankzij het IPS scherm ervaar je een betere kijkhoek en nauwkeurigere kleurenweergave.  
⚡ Beschikt niet over een grafische kaart.

★★★★★  
Jelma L.  
12-3-19

5 van de 7 klanten vinden deze review nuttig  
**Zeer goede laptop!**  
Ja, ik beveel dit product aan.

Werkt super snel. Kunnen veel programma's open staan zonder dat te vast loopt. Ben er heel tevreden mee.

3 van de 4 klanten vinden deze review nuttig  
**Laptop zonder legacy support**  
Ik wil aangeven dat laptop, maar de BIOS heeft geen legacy support. Daarom is het niet mogelijk om (nu) op deze pc te draaien en kan de krachtige i7 hexacore processor dus eigenlijk niet door waar hij voor bedoeld is, namelijk zware C++ data analyses draaien.

★★★★★  
Christiaan D.  
21-12-18



computernijmegen.nl

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Witgoed	Mooi & Gezond	Tuin	Klussen	Camera	Outdoor	Speelgoed

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computernijmegen.nl

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computernijmegen.nl

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Waar ben je naar op zoek?



**HP LAPTOP 15-DA1100ND**  
**€529**




## I. Shoes

**alleschoenen.nl**

Sneakers Hardloopschoenen Sportschoenen

Kies je maat

€ 49,99



Loggen Favorieten Shoppingbag

VISA Mastercard PayPal

**Elena A**  
 19 Jun 2019  
 ⭐⭐⭐⭐ Factory defect. Awful mismatched fit.  
 Verkeerde maat  
 When I had got this shoes I thought I was crazy, right one fit fine, a bit snug, but comfortable. Left shoe though immediately felt way too tight on my toes, so much it hurt. I checked the size and they are the same size according to label. They seemed same size. But after unsuccessfully trying to wear them and closer examination, a factory defect was very apparent. The outsoles are in a different position from one shoe to the other.


**Jana Miller**  
 30 Mar 2019  
 ⭐⭐⭐⭐⭐ Love these shoes for my hallux rigidus toe problems  
 Verkeerde maat  
 I love the comfort of these shoes and the rocker bottom is great for my hallux rigidus toe problems since it does not flex a lot. Wish I had known about these shoes long ago.

**alleschoenen.nl**

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## II. Books

**jeboekwinkel.nl**

**Astrid Holleeder**  
**Familiegeheimen**  
 22,50 EUR

BESTELLEN



★★★★★ **Zeer prijkeend**  
 Poluur | Driebergen  
 ✓ Ik raad dit product aan  
 + Goede verhaallijn  
 + Meestepend verhaal  
 + Inspirerend  
 ★★★★★ **Tegenvaler**  
 Vollerwichtig  
 Vroespelbaar  
 Sati  
 Geen diepgang

Astrid Holleeder - de zus van Willem Holleeder - schreef een verbijsterende familiechroniek waarin zij een ontzettend portret schetst van een gezin dat sinds 1983 het jaar van de Heineken-ontvoering - alleen nog maar een achternaam heeft: Holleeder.

Uitgeverij Overamstel Uitgevers Pagina's 416 Taal Nederlands ISBN 9789048852642 Binding Paperback  
 Formaat 211x136x33 mm Jaar 2019

**jeboekwinkel.nl**

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BESTELLEN



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Uitgeverij Overamstel Uitgevers Pagina's 416 Taal Nederlands ISBN 9789048852642 Binding Paperback  
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i. Survey Questions

I. Part 1 - Informed Consent

☐ Q16



Thank you for participating in this online experiment, which is conducted in the context of my Master Thesis Innovation & Entrepreneurship at Radboud University Nijmegen.

The experiment consists of three parts. The first part you will be asked a couple of questions about yourself. In the second part you will be asked to judge images of a webpage. Finally, in the third part you will be asked some questions relating to the research.

- ☐ I understand that participating in this experiment is voluntary and that I may withdraw from the experiment at any time.

II. Part 2 – Demographics

☐ Q1

What is your gender?



- ☐ Male
- ☐ Female
- ☐ Other

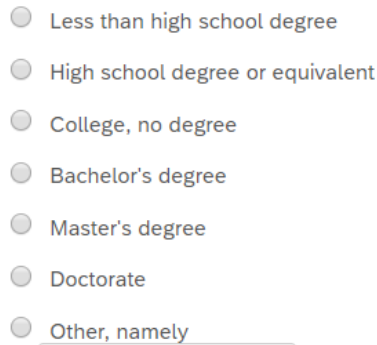
☐ Q2

What is your age?



- ☐ 18
- ☐ 19
- ☐ 20
- ☐ 21
- ☐ 22
- ☐ 23
- ☐ 24
- ☐ 25
- ☐ 26
- ☐ 27
- ☐ 28
- ☐ 29
- ☐ 30

What is the highest level of school you have completed? (If you are currently enrolled, please indicate the highest degree you have received).



### III. Scenario Shoes

Given that you would like to purchase these shoes. How likely is it that you would purchase these shoes on this website?



Q39



Given that you would like to purchase these shoes. How likely is it that you would purchase these shoes on this website?

- ☐ Extremely likely
- ☐ Moderately likely
- ☐ Slightly likely
- ☐ Neither likely nor unlikely
- ☐ Slightly unlikely
- ☐ Moderately unlikely
- ☐ Extremely unlikely

Q19




# alleschoenen.nl

waar ben je naar op zoek?

Sneakers Hardloopschoenen Sportschoenen

Kies je maat

€ 49,99



[Inloggen](#) [Favorieten](#) [Shoppingbag](#)

Elena A

☆☆☆☆☆ Factory defect. Awful mismatched fit.

19. Juni 2019

Verifieerde Kauf

When I first got this shoes I thought I was crazy, right one fit fine, a bit snug, but comfortable. Left shoe though, immediately felt way too tight on my toes, so much it hurt. I checked the size and they are the same size according to label. They seemed same size. But after unsuccessfully trying to wear them and closer examination, a factory defect was very apparent. The outsoles are in a different position from one shoe to the other.

Jane Miller

☆☆☆☆☆ Love these shoes for my hallux rigidus toe problems

30. Mai 2019

Verifieerde Kauf

Love the comfort of these shoes and the rocker bottom is great for my hallux rigidus toe problems since it does not flex a lot. Wish I had known about these shoes long ago.



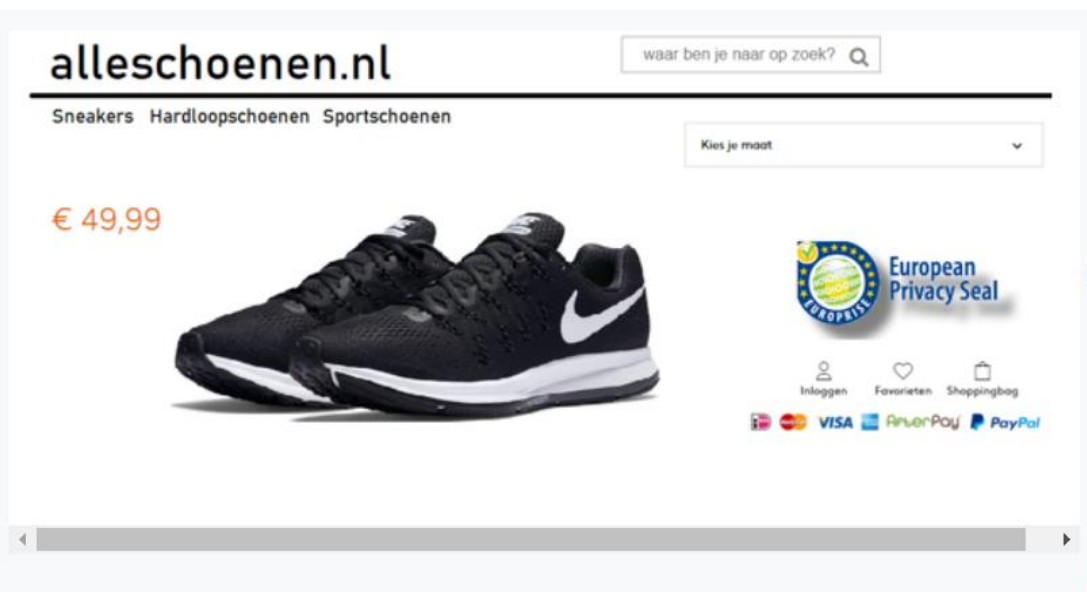
Q20

Given that you would like to purchase these shoes. How likely is it that you would purchase these shoes on this website?



- ☐ Extremely likely
- ☐ Moderately likely
- ☐ Slightly likely
- ☐ Neither likely nor unlikely
- ☐ Slightly unlikely
- ☐ Moderately unlikely
- ☐ Extremely unlikely

Q21

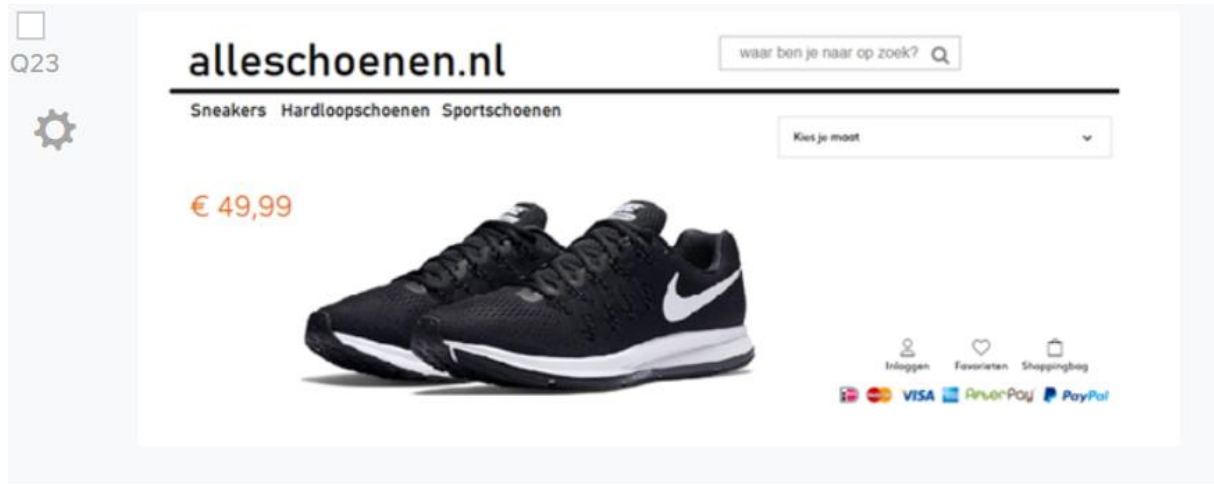


Q22

Given that you would like to purchase these shoes. How likely is it that you would purchase these shoes on this website?



- ☐ Extremely likely
- ☐ Moderately likely
- ☐ Slightly likely
- ☐ Neither likely nor unlikely
- ☐ Slightly unlikely
- ☐ Moderately unlikely
- ☐ Extremely unlikely



Q37 Given that you would like to purchase these shoes. How likely is it that you would purchase these shoes on this website?



- ☐ Extremely likely
- ☐ Moderately likely
- ☐ Slightly likely
- ☐ Neither likely nor unlikely
- ☐ Slightly unlikely
- ☐ Moderately unlikely
- ☐ Extremely unlikely

#### IV. Scenario Books

Q26



jeboekwinkel.nl

Zoek naar 1.163.158 boeken...



Astrid Holleeder  
Familiegeheimen

22,50 EUR

BESTELLEN



Astrid Holleeder - de zus van Willem Holleeder - schreef een verbijsterende familiekroniek waarin zij een onthutsend portret schetst van een gezin dat sinds 1983 - het jaar van de Heineken-ontvoering - alleen nog maar een achternaam heeft: Holleeder.

★★★★★ **Zeer prikkelend**

Polluxw | Driebergen

✓ Ik raad dit product aan

+ Goede verhaallijn

+ Meeslepend verhaal

+ Inspirerend

★☆☆☆☆ **Tegenvaller**

Volverwachting

- Voorspelbaar

- Saai

- Geen diepgang



Uitgeverij: Overamstel Uitgevers. Pagina's: 416. Taal: Nederlands. ISBN: 9789048852642. Binding: Paperback. Formaat: 211x136x33 mm. Jaar: 2019

Q24



- ☐ Extremely likely
- ☐ Moderately likely
- ☐ Slightly likely
- ☐ Neither likely nor unlikely
- ☐ Slightly unlikely
- ☐ Moderately unlikely
- ☐ Extremely unlikely

Given that you would like to purchase this book. How likely is it that you would purchase this book on this website?



*Astrid Holleeder*  
Familiegeheimen

22,50 EUR

**BESTELLEN**

Astrid Holleeder - de zus van Willem Holleeder - schreef een verbijsterende familiekroniek waarin zij een onthutsend portret schetst van een gezin dat sinds 1983 - het jaar van de Heineken-ontvoering - alleen nog maar een achternaam heeft: Holleeder.

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Polluxw | Driebergen

✓ Ik raad dit product aan

+ Goede verhaallijn

- + Meeslepend verhaal

- + Inspirierend

★☆☆☆☆ Tegenvaller

Volverwachting

- Voorspelbaar

— Saai

- Geen diepgang

Given that you would like to purchase this book. How likely is it that you would purchase this book on this website?



☐ Extremely likely

☐ Moderately likely



☐ Slightly likely

☐ Neither likely nor unlikely

☐ Slightly unlikely

☐ Moderately unlikely

☐ Extremely unlikely



Hardware	PC	Notebook	Telefoon	Gaming	Televisies	Audio
Witgoed	Mooi & Gezond	Tuin	Klussen	Camera	Outdoor	Speelgoed

Waar ben je naar op zoek?



## HP LAPTOP 15-DA1100ND

€529

🌱 Dankzij het IPS scherm ervaar je een betere kijkhoek en nauwkeurige kleurweergave.

🔴 Beschikt niet over een grafische kaart.



**Jelena J.**

12-3-19

6 van de 7 klanten vinden deze review nuttig

### **Zeer goeie laptop!**

Ja, ik beveel dit product aan.

Werkt super snel. Kunnen veel programmas open staan zonder dat ie vast l er heel tevreden mee.



**Christiaan D.**

21-12-18

3 van de 4 klanten vinden deze review nuttig

### **Laptop zonder legacy support**

Mooi afgewerkte laptop, maar de BIOS heeft geen legacy support. Daarom mogelijk om linux op deze pc te draaien en kan de krachtige i7 hexacore p; dus eigenlijk niet doen waar hij voor bedoeld is, namelijk zware C++ data-a draaien.



Q33

Given that you would like to purchase this laptop. How likely is it that you would purchase this laptop on this website?



- ☐ Extremely likely
- ☐ Moderately likely
- ☐ Slightly likely
- ☐ Neither likely nor unlikely
- ☐ Slightly unlikely
- ☐ Moderately unlikely
- ☐ Extremely unlikely

Q34

computernijmegen.nl

Hardware	PC	Notebook	Telefoon	Gaming	Televisies	Audio
Witgoed	Mooi & Gezond	Tuin	Klussen	Camera	Outdoor	Speelgoed

Waar ben je naar op zoek?

HP LAPTOP 15-DA1100ND

€529

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Beschikt niet over een grafische kaart.

★★★★★

Jelena J.  
12-9-19

6 van de 7 klanten vinden deze review nuttig

**Zeer goede laptop!**  
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3 van de 4 klanten vinden deze review nuttig

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Q35

Given that you would like to purchase this laptop. How likely is it that you would purchase this laptop on this website?

☐

 Extremely likely

☐

 Moderately likely

☐

 Slightly likely

☐

 Neither likely nor unlikely

☐

 Slightly unlikely

☐

 Moderately unlikely

☐

 Extremely unlikely

Q36

computernijmegen.nl

Hardware	PC	Notebook	Telefoon	Gaming	Televisies	Audio
Witgoed	Mooi & Gezond	Tuin	Klussen	Camera	Outdoor	Speelgoed

Waar ben je naar op zoek?

HP LAPTOP 15-DA1100ND

€529

57

Q37

Given that you would like to purchase this laptop. How likely is it that you would purchase this laptop on this website?



- ☐ Extremely likely
- ☐ Moderately likely
- ☐ Slightly likely
- ☐ Neither likely nor unlikely
- ☐ Slightly unlikely
- ☐ Moderately unlikely
- ☐ Extremely unlikely

Q38



computernijmegen.nl

Hardware	PC	Notebook	Telefoon	Gaming	Televisies	Audio
Witgoed	Mooi & Gezond	Tuin	Klussen	Camera	Outdoor	Speelgoed

Waar ben je naar op zoek?



**HP LAPTOP 15-DA1100ND**  
**€529**

Q38

Given that you would like to purchase this laptop. How likely is it that you would purchase this laptop on this website?



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