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MASTER THESIS

Factors influencing personal data sharing in ecommerce

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Contents

Factors influencing personal data sharing in ecommerce

Introduction

Internet commerce (in short e-commerce) sales in the last 6 years has almost tripled, increasing from 1.3\$T in 2014 to 4.2\$T in 2020, This trend is expected to grow even further and by 2023 projected to hit 6.5\$T (Coppola, 2019). Even though this number has increased so drastically. Ecommerce still is a small portion of global sales, accounting for just 14.1% of market (Statista , 2019). Based on the above-mentioned information we can assume that there still is a large portion of the world population who either cannot purchase online or decide not to. There are many factors such as lack of internet knowledge, lack of ecommerce development and etc. that may make someone decide not to purchase from online stores and one of them is people's unwillingness to share their personal data in ecommerce (Matea, & Katija,, 2014). There have been many studies done about what influences people's trust in a retailer and how it can be increased (Mohr & Walter, 2019). Situational factors are most commonly used to do this, for example offering a subscription trial or free services for giving up personal information or offering great customer experience through good convenient website design or customer support that provides help when needed (Han, Rathindra, & Heng, 2010). Further studies show us that there are also dispositional factors such as price sensitivity, persons internal willingness in trying something new, their life experiences and skills (Mcerloy, Hendrickson, Townsend, & Demarie , 2007).

Some of the factors have already been studied closely in different researches and there is already information on them. Privacy calculus has been a main model in previous studies when explaining and describing personal data sharing in ecommerce (Dinev & Hart, 2006; Trepte & Reinecke, 2017), so I also will be using it in this paper to better connect benefits and risks associated with data disclosure and also how privacy calculus model can be used effectively in this type of topic.

In 2023 there is not a concentrated study on privacy calculus that shows benefits and risks of data disclosure, in this paper I will try to understand if and what kind of role those variables play in regards to privacy calculus. This paper will find models linked with the data disclosure in the online ecosystem, find what kind of variables are involved in them, expand on each of them and link each variable with the existing models. This will bring the relevant up to date study for future researches that need to find what variables in existing model(s) are and how they are translated into the real-world situations.

The aim of this thesis is to investigate and understand the influence of perceived risks and benefits on individuals' willingness to share personal data in the context of e-commerce.

These are objectives that needed to be fulfilled:

1. Identify Factors Affecting Personal Data Sharing: To identify and categorize the factors that influence individuals' decisions regarding the sharing of their personal data in e-commerce settings.
2. Model Development: Develop a comprehensive model that integrates risks and benefits to showcase how they collectively influence personal data sharing decisions.
3. Assess Benefits and Risks: Analyze the perceived benefits and risks associated with personal data disclosure in e-commerce, considering factors such as transparency, perceived control, and past experiences.
4. Review Privacy Calculus Model: To review the Privacy Calculus model as a foundational framework for understanding personal data sharing in e-commerce, and to assess its relevance and effectiveness in this context.
5. Hypothesis Development and Research Design: Formulate hypotheses to explore the relationships between privacy concerns, internet trust, and the moderating effects of personalization and convenience on personal data sharing behavior. Additionally, we will design questionnaires, select appropriate instruments and scales, and determine the sampling method to create a well-structured research design.
6. Data Collection and Analysis Framework: Focus on implementing the research design, including the administration of questionnaires and data collection. Subsequently, our objective is to employ robust data analysis methods to test the formulated hypotheses and derive meaningful insights regarding the factors influencing personal data sharing in e-commerce.
7. Provide Insights for Future Research: To offer insights and recommendations for future research endeavors aimed at further understanding the variables within existing models and their practical implications in real-world scenarios.

By focusing on these objectives, the research will provide valuable insights into the factors influencing personal data sharing in e-commerce, with a specific emphasis on the interplay between privacy calculus and the perceived benefits and risks of data disclosure.

Structure of the paper:

The structure of this scientific work consists of three main parts. First part is devoted to literature analysis, describes privacy calculus model, willingness to share data, internet trust, perceived risks

and benefits, analyzes previous studies. The second part of the study describes methodology and provides the purpose of the research, hypotheses, research model, research design and population, sampling methods, designing a questionnaire. Last part of the study is devoted to the results of the study, conclusions, limitations and recommendations.

Problem of the paper:

Limited research and data, which means that it was limited find data sources that directly addresses to my research question.

1. THE ANALYSIS OF SCIENTIFIC LITERATURE

1.1 Willingness to share data

Willingness to share data in e-commerce is a critical aspect of the modern digital marketplace. It refers to the extent to which individuals are open to providing their personal information, such as name, contact details, and browsing history, to online businesses for various purposes. Understanding this willingness is essential for businesses seeking to engage with their customers, enhance user experiences, and tailor marketing efforts effectively. The decision to share data in e-commerce is influenced by various factors, including benefits, perceived risks, internet trust, and personalization. One common method of data sharing in e-commerce is through the use of customer accounts and profiles, as explained by (Miao, et al., 2022). Customers willingly provide their data when creating accounts on e-commerce platforms. They share information such as their name, email address, and payment details, allowing businesses to offer personalized services, process transactions, and track user activity. Additionally, data sharing extends to online purchases, where customers provide shipping addresses and payment information for order fulfillment, as mentioned in a study by (Paul, Tiago, & Almira, 2019). These interactions create a wealth of data that businesses can leverage for various purposes. Businesses utilize the data shared by customers in e-commerce for a multitude of purposes. Personalization is a prominent use, as companies can tailor their offerings to individual preferences and behaviors. By analyzing data on past purchases, browsing history, and demographic information, businesses can recommend products, send personalized promotions, and enhance the overall shopping experience. A study by (Li, Lin, & Juanjuan, 2023) underscores the role of data-driven personalization in e-commerce. For instance, Amazon is well-known for its recommendation engine, which relies on customer data to suggest relevant products, as highlighted in research by (Liu, et al., 2019). Furthermore, customer data is used for market segmentation and targeting. Companies can identify customer segments based on factors such as age, gender, and location, and then create targeted advertising campaigns to reach specific audiences. While personalization and targeted marketing are important benefits of data sharing in e-commerce, individuals assess the benefits against the perceived risks. Perceived risks encompass concerns about data privacy, security, and the potential misuse of personal information. Customers want to ensure their data is protected and used responsibly. Therefore, businesses must establish trust by implementing robust data security measures, clear privacy policies, and transparent data handling practices. Trust is a key factor that influences the willingness to share data in e-commerce, as emphasized in a study by (Imtiaz & Dr-Kashif, 2019). For instance, e-commerce giants like eBay and PayPal invest heavily in ensuring

secure transactions and data protection to build and maintain trust with their users, as noted in a research paper by (Kathuria, Grover, Perego, Mattoo, & Banerjee, 2019). The interplay between these factors is complex. Research by ((Sun, Wang, Shen, & Zhang, 2015) highlights how privacy concerns, benefit perceptions, and trust interact in the context of online data sharing. The Privacy Calculus Model, as discussed by (Dinev & Hart, 2006), underscores the importance of individuals' confidence and enticement beliefs in shaping their intention to provide personal information for e-commerce transactions. These studies emphasize the intricate balance between benefits and perceived risks and the role of trust in the willingness to share data. As individuals weigh these factors, they make decisions that not only affect their own online experiences but also impact how businesses operate in the digital marketplace, as corroborated by research conducted by (Chunting , Shanshan, & Guozhu, 2020).

From a customer's perspective, the decision to share data in e-commerce is a thoughtful and often cautious process that involves careful consideration of several key factors: benefits, perceived risks, internet trust, and personalization. Customers are acutely aware that their personal information is a valuable currency in the online marketplace. They weigh the advantages of data sharing against their concerns and expectations for privacy and security (Syed Imran, Sherbaz, Tariq, & Miao, 2021).

In conclusion, the willingness to share data in e-commerce is a pivotal element in the digital age, underpinning personalization, targeted marketing, and the overall user experience. Individuals' decisions to share data are influenced by a delicate balance of benefits, perceived risks, and trust, as highlighted in a study by (Andreas I, Eric, & Mohammed, 2013). Businesses must navigate this balance carefully, ensuring that their practices align with customers' expectations for data security, transparency, and personalized services. The interplay of these factors is central to understanding and fostering a climate of trust and data sharing in e-commerce, as demonstrated by research conducted by (Zhao & Morad, 2013).

At the core of this analysis lies the Privacy Calculus model (Laufer & Wolfe, 1977), a foundational framework extensively examined in the existing literature. The model posits that individuals engage in a cost-benefit analysis when deciding whether to share their personal data online. They weigh the perceived benefits, such as customized recommendations, convenience, and access to exclusive offers, against the perceived risks, including concerns about data misuse, privacy violations, and security breaches. The Privacy Calculus model serves as a theoretical foundation for understanding this complex decision-making process (Dinev & Hart, 2006). This model is the

most relevant in this context as privacy calculus discusses what variables go into the person's decision to disclose personal information in any form and in any platform, there have been many studies related to the privacy calculus and ecommerce (Dinev & Hart, 2006; Dinev, Bellotto, & Hart, 2006; Trepte & Reinecke, 2017; Kehr & Kowatsch, 2015) and I'll be using their researches to show which variables are included in them and then explain each variable and what their influence is towards information disclosure. The general privacy model for calculus is presented in the table below:
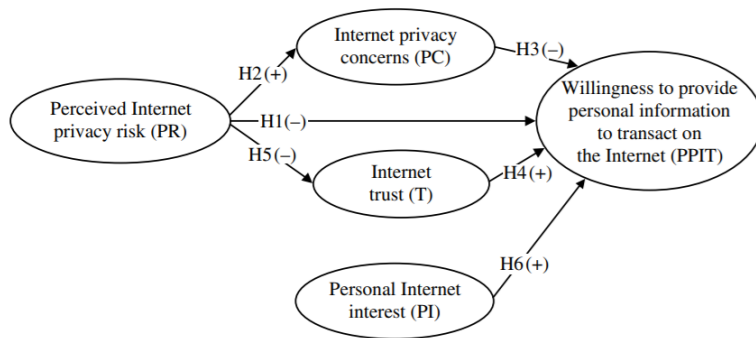
Figure 1. Model of privacy Calculus

This model was done to "better understand the delicate balance between privacy risk beliefs and confidence and enticement beliefs that influence the intention to provide personal information necessary to conduct transactions on the internet (Dinev & Hart, 2006).
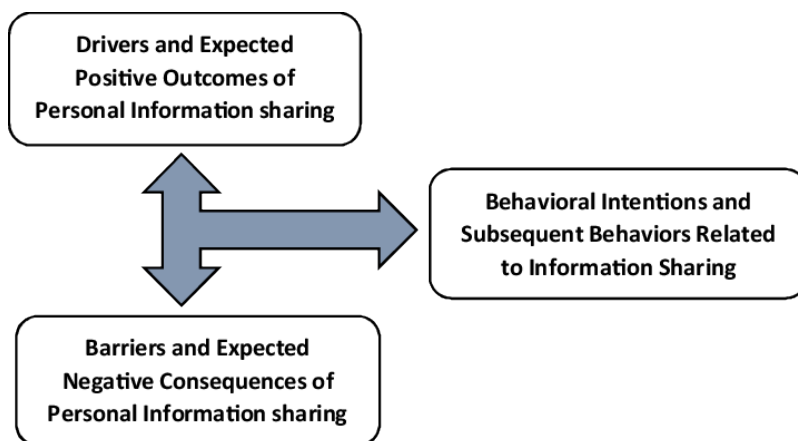
Figure 2. Model of privacy Calculus

Privacy Calculus Model is a theoretical framework that plays a pivotal role in understanding personal data sharing behavior in e-commerce. This model, rooted in information systems

research, investigates the complex interplay of various factors that influence individuals' decisions to disclose personal information on the internet. Several research studies have utilized this model to explore privacy concerns, benefits, perceived risks, and internet trust as independent variables, shedding light on the intricate dynamics of data sharing in online contexts. At its core, Privacy Calculus Model posits that individuals weigh the potential benefits against the perceived risks when deciding to share their personal data in e-commerce. These benefits encompass factors such as personalization, convenience, cost savings, and time savings, which incentivize individuals to provide their information to online platforms. On the other side of the equation, perceived risks, which are shaped by privacy concerns and past experiences, act as potential deterrents. Privacy concerns reflect individuals' apprehensions about how their data will be used, while past experiences, including data breaches and misuse of personal information, contribute to shaping perceptions of risk. One notable study, conducted by (Dinev & Hart, 2006), used the Privacy Calculus Model to explore the delicate balance between privacy risk beliefs and the confidence and enticement beliefs that influence the intention to provide personal information on the internet. Their research delved into the factors influencing internet trust and its role in shaping individuals' decisions regarding data disclosure in e-commerce. This study highlighted the significance of trust as a key determinant of data sharing behavior. Another study by (Heng, Hock, Bernard, & Ritu, 2010) employed the Privacy Calculus Model to investigate privacy concerns and preferences in e-commerce. The research delved into how individuals' perceptions of risk and benefit influenced their decisions to disclose personal data online. It proposed an Elaboration Likelihood Model perspective, offering a comprehensive understanding of the processes individuals go through when making data sharing decisions. (Yoon & Occena, 2015) explored the role of internet trust, risk, and benefit in shaping individuals' privacy intentions using the Privacy Calculus Model. Their research emphasized how these variables interacted in influencing decisions regarding personal data disclosure. The study highlighted the complex nature of privacy calculus and the importance of considering multiple factors in understanding data sharing behavior.

In conclusion, the Privacy Calculus Model provides a robust framework for investigating the interplay of benefits, perceived risks, and internet trust in the context of personal data sharing in e-commerce. These independent variables contribute to the multifaceted nature of individuals' decisions to disclose personal information online, and research utilizing this model has shed light on the intricate dynamics of data sharing behavior in the digital age.

1.2. Internet trust

Internet trust is a pivotal and intricate concept that holds a profound influence on individuals' willingness to share personal data on the internet. It reflects the degree of confidence and faith individuals have in the security, reliability, and ethical conduct of online platforms, services, and interactions (Al-Debei, Akroush, & Ashouri, 2015). This concept serves as a critical independent variable when exploring the dynamics of personal data disclosure in the digital realm. The degree of internet trust directly shapes the perceived benefits and risks associated with data sharing.

Research by (Dinev and Hart, 2006) scrutinized the interplay between internet trust and the Privacy Calculus model. Their study discovered that individuals with higher levels of internet trust were more likely to engage in personal data sharing online. This trust in the online environment reduced the perceived risks of data disclosure, subsequently increasing individuals' willingness to participate in online transactions and share their personal information. (Dinev & Hart, 2006)'s work emphasizes the vital role of trust in mediating data sharing behaviors.

Further insights into the impact of trust in e-commerce environments are provided by (Mohr & Walter, 2019) Their extensive research revealed that trust-building strategies employed by online retailers had a significant influence on customers' trust levels. A trustworthy online presence fostered not only confidence in data security but also positively impacted customers' willingness to share personal information. This study underscores the crucial role of internet trust in driving success in e-commerce (Artur & Mariia, 2022).

Additionally, the design and features of e-commerce platforms play a pivotal role in shaping internet trust, as highlighted by the work of (Han, Rathindra, & Heng, 2010). User-friendly website design, transparent data handling practices, and responsive customer support all contribute to higher levels of internet trust among consumers. In turn, this increased trust positively influences individuals' data sharing decisions, as they perceive fewer risks associated with disclosure (Milena, Dianne, Satya, & Boudhayan, 2010). The findings from this research underscore the impact of platform-related factors on internet trust.

In summary, internet trust is a multifaceted independent variable that encompasses individuals' confidence in online platforms and their data handling practices. Past research consistently demonstrates that higher levels of internet trust are associated with a greater willingness to disclose personal data on the internet. Trust in the online environment is influenced by various factors, including platform design and transparency in data usage. Understanding and fostering internet trust is crucial in the context of personal data sharing in e-commerce, as it significantly shapes individuals' attitudes and behaviors in the digital marketplace.

1.3 Perceived risks

In the context of e-commerce refer to the subjective assessment individuals make regarding the potential negative consequences of disclosing their personal data online. This variable plays a significant role in influencing individuals' decisions about whether to share their information on the internet (Steven & Izak, 2011). Privacy concerns and past experiences are two key moderating variables that directly impact the level of perceived risks associated with data disclosure (Bailing, Huimin, & Caroline, 2022). Numerous studies have examined the concept of perceived risks and its connection to privacy concerns and past experiences in the context of online data sharing. Understanding these relationships is essential for gaining insights into individuals' willingness to disclose personal data in e-commerce settings (Nuno, Paulo, & Margherita, 2017).

Research by (Dinev and Hart, 2006) delved into the intricate relationship between privacy concerns and perceived risks associated with data disclosure. Their findings indicated that individuals with high privacy concerns were more likely to perceive greater risks in sharing personal data online. Privacy concerns serve as a driving force behind the assessment of risks, as individuals become more cautious and apprehensive about potential negative outcomes when their privacy is at stake (Devendra, Gopal, & Mohit, 2020).

(Mohr and Walter, 2019) conducted a study that emphasized the interconnectedness of privacy concerns, trust, and perceived risks in e-commerce. They found that individuals with heightened privacy concerns were less likely to trust online platforms, which, in turn, amplified their perception of risks associated with data sharing. Privacy concerns acted as a catalyst in magnifying the perceived risks of sharing personal information (Chien-Lung, Yi-Chuan, Ching-Wen, & Lin, 2022).

Past experiences with data breaches, online scams, or identity theft significantly influence individuals' assessment of perceived risks in e-commerce (Chakraborty, Lee, Bagchi-Sen, Upadhyaya, & Rao, 2016). Research by (Jones & Ross, 2007) conducted that highlighted how individuals who had previously encountered negative online experiences were more likely to perceive higher risks in sharing personal data. These past experiences created a sense of vulnerability and caution, leading to an increased perception of risks.

(Mcerloy, Hendrickson, Townsend, & Demarie , 2007) explored the moderating roles of privacy concerns and past experiences on perceived risks. Their research revealed that privacy concerns and negative past experiences interacted to intensify individuals' perceptions of risks associated

with data disclosure. Those with both high privacy concerns and adverse past experiences exhibited the highest levels of perceived risks.

In summary, perceived risks in the context of e-commerce are shaped by privacy concerns and past experiences. Individuals with heightened privacy concerns are more likely to perceive greater risks in sharing personal data, and individuals with negative past experiences tend to have heightened perceptions of risks. The interplay between these variables is complex, and understanding how they collectively influence perceived risks is crucial for comprehending individuals' willingness to disclose personal data in e-commerce settings.

Privacy concerns serve as a crucial moderating variable in the relationship between perceived risks and personal data sharing in the digital landscape. Privacy concerns encompass individuals' unease about the potential threats to their personal information when it's shared online. These concerns influence the extent to which people perceive the risks associated with data disclosure. Research by (Naresh, Sung S, & James, 2004) delves into the moderating role of privacy concerns in online transactions. They found that individuals with high privacy concerns were more sensitive to the perceived risks of sharing personal data. As a result, these individuals were less likely to engage in online data-sharing behaviors, highlighting the pivotal role of privacy concerns in influencing perceived risks. Additionally, (Kelly D & Patrick E, 2016) explored the role of privacy concerns in the context of social media. They discovered that privacy concerns significantly moderated the relationship between perceived risks and individuals' intentions to disclose information on social networking platforms. Higher privacy concerns amplified the negative perception of risks, making individuals more hesitant to share their data. (Heng, Tamara, H., & Paul, 2008) examined the moderating effects of privacy concerns in online banking. Their research highlighted that individuals with heightened privacy concerns perceived higher risks in conducting online banking transactions. These concerns served as a strong moderating variable, influencing individuals to be more cautious when sharing their personal information in the online banking environment. (Dinev and Hart, 2006) emphasized that individuals' privacy concerns interact with their perceived risks when making decisions about data disclosure. Higher levels of privacy concerns amplify the negative perception of risks, making individuals more reluctant to share their personal data. This suggests that addressing privacy concerns is essential for businesses aiming to alleviate perceived risks and encourage data sharing in e-commerce (Yaping & Varun, 2022).

In summary, privacy concerns act as a pivotal moderating variable in the relationship between perceived risks and personal data sharing. They exacerbate the perceived risks associated with

data disclosure, especially for individuals who are highly concerned about their privacy. To foster trust and encourage responsible data sharing in the digital realm, it's imperative for businesses to address these privacy concerns and implement robust privacy protection measures.

Past experiences play a pivotal role in shaping individuals' attitudes and behaviors in the digital sphere, particularly when it comes to personal data sharing (Esra, Kerrin, Johannes, & Yevhen, 2023). These experiences encompass a wide array of interactions and transactions in the online environment, and they significantly impact individuals' perceptions of risks associated with data disclosure. Research (Thomas, Ksenia, Hanna, & Sarah, 2012) emphasizes the importance of past experiences in determining individuals' willingness to share personal data in the context of online social networks. Their findings suggest that positive past experiences, such as secure and enjoyable interactions on social networking platforms, lead individuals to perceive fewer risks in disclosing personal information (Paul, Jurjen , Joseph, Jean , & Petko, 2018). Positive past experiences act as a protective factor, reducing the perceived risks and encouraging data sharing. (Dinev and Hart, 2006) conducted a comprehensive study on internet privacy and data disclosure behavior. They found that past experiences are instrumental in shaping individuals' perceptions of online privacy risks. Positive past experiences, including successful and secure transactions, mitigate the perceived risks, making individuals more inclined to share their personal information. Conversely, negative past experiences heighten the perceived risks, leading to a greater reluctance to engage in data sharing. Moreover, (Smith, Milberg, & Burke, 1996) highlighted the long-term effects of past experiences on online privacy perceptions. They argued that individuals who have previously encountered secure and satisfactory online transactions are more likely to have trust in the digital environment. This trust, stemming from positive past experiences, leads to lower perceptions of risks in personal data sharing (Kangning, Yuzhu, Yong, & Jing, 2018). In the realm of e-commerce, how past experiences influence consumers' risk perceptions and trust in online shopping. Their study revealed that individuals with favorable past experiences in online shopping, characterized by reliable and secure transactions, tended to perceive lower risks associated with sharing personal data (Paul, Tiago, & Almira, 2019). These positive past experiences bolstered trust in online shopping platforms, fostering a more open attitude towards data sharing (Kwek, Teck-Chai, & Tan, 2010).

To sum up, past experiences have a profound impact on individuals' perceptions of risks in personal data sharing in digital contexts. Positive past experiences tend to mitigate perceived risks and increase the willingness to share personal information, whereas negative experiences have the opposite effect. As businesses strive to encourage responsible data sharing, creating and

maintaining positive past experiences for their customers is essential in building trust and fostering a secure online environment.

1.4 Benefits

Benefits in the realm of e-commerce pertain to the perceived advantages and gains individuals associate with divulging their personal data online. These advantages significantly influence individuals' decisions regarding whether to share their information (Yuan, Shuyue, & Yujong, 2019). Moderating variables such as personalization, convenience, cost savings, and time savings play a pivotal role in shaping the perceived benefits of data disclosure (Sandra, Chuanlan, David, & Liu, 2006). Past studies have explored the concept of benefits and their connection to personalization, convenience, cost savings, and time savings as moderating variables within the context of online data sharing. Comprehending these relationships is crucial for gaining insights into individuals' willingness to disclose personal data in e-commerce contexts (Ibrahim, Eid, & Amer, 2021).

Research conducted by (Kehr & Kowatsch, 2015) delved into the relationship between personalization and the perceived benefits associated with data disclosure. Their findings revealed that individuals who highly valued personalized experiences in e-commerce were more inclined to perceive substantial benefits from sharing their personal data. Personalization enhances the overall user experience, contributing to the perception of tailored advantages.

(Donna, Thomas, & Marcos, 1999) conducted a study that emphasized the role of **convenience** in shaping the perceived benefits of data disclosure. Their research findings indicated that individuals who prioritized convenience in online transactions were more likely to perceive notable benefits in sharing their personal data. Convenience simplifies the process of conducting online transactions, rendering it more appealing to individuals.

Research led by (Joanne, Maximilian, Catherine , & Shannon, 2017) underscored the significance of **cost savings** as a moderating variable in relation to benefits. Their research demonstrated that individuals who believed they could attain cost savings through data disclosure were more inclined to perceive significant benefits. Cost savings represent a tangible advantage that enhances the perceived benefits of sharing personal data.

(Kholoud, 2020) and (Jati, Agnes, Noraini, & Mohd, 2020) conducted research that highlighted the role of **time savings** in shaping the perceived benefits of data disclosure within the realm of e-

commerce. The research findings suggested that individuals who valued time savings in online transactions were more likely to perceive benefits in sharing their personal data. Time savings contribute to efficiency and convenience, further bolstering the perceived advantages.

(Dinev & Hart, 2006) conducted research that explored the interplay among personalization, convenience, cost savings, and time savings as moderating variables affecting **perceived benefits**. Their findings indicated that these variables interacted in a synergistic manner to amplify the perceived benefits of data disclosure. Individuals who experienced a combination of personalized, convenient, cost-saving, and time-saving advantages were more inclined to perceive substantial benefits.

In summary, within the context of e-commerce, benefits are contingent upon factors such as personalization, convenience, cost savings, and time savings acting as moderating variables. Individuals who prioritize these factors are more likely to perceive significant benefits when it comes to sharing personal data online. This intricate interplay among these variables adds depth to the perceived benefits, ultimately shaping individuals' decisions regarding data disclosure in e-commerce environments.

Personalization stands out as a significant moderating variable in the context of data sharing within e-commerce. It encompasses tailoring the online shopping experience to cater to individual preferences, making it more relevant and engaging for consumers. The customization of products, services, and content is directly linked to the perceived benefits of data sharing and significantly influences consumers' willingness to disclose personal information (Ilias, Michail , Vassileios, & Adamantia, 2014). Numerous studies have explored the impact of personalization on e-commerce success. (Ting-Peng, Timon, Efraim, & H.-Y, 2012) conducted research to understand how personalization influences consumers' perception of benefits in online shopping. Their findings indicate that when consumers perceive a high degree of personalization in their online shopping experiences, it positively affects their perception of benefits. This personalized approach leads to increased convenience, relevant product recommendations, and tailored content. As a result, consumers are more willing to share their personal data, understanding that it contributes to a more efficient and enjoyable online shopping experience. (Ilias, Panos E, Michail, & Vassileios, 2017) delved into the role of personalization in influencing consumers' attitudes and behaviors in e-commerce. Their study demonstrated that personalization fosters a sense of value among consumers. This value translates into benefits, such as a more tailored shopping process, time savings, and reduced effort in finding desired products or services. When individuals perceive

these benefits, their willingness to share personal data is heightened. They view data sharing as a trade-off for the enhanced and personalized online shopping experience, which further emphasizes the importance of personalization as a moderating variable in the relationship between benefits and data sharing (David & Carolina, 2021).

In essence, personalization plays a crucial role in moderating the perceived benefits of data sharing in e-commerce. As consumers experience a more tailored and relevant online shopping journey, they perceive benefits related to convenience, efficiency, and value. This, in turn, positively influences their willingness to share personal data, as they recognize that data sharing enables a more customized and satisfying shopping experience (Muhammad, Muhammad, Mekhail, Joni, & Deepak, 2022). Businesses seeking to encourage data sharing should prioritize personalization strategies that enhance the perceived benefits for their customers, thereby strengthening trust and fostering fruitful data sharing relationships.

Convenience within the context of e-commerce signifies the ease and user-friendliness of online shopping experiences, making it a key moderating variable for perceived benefits when sharing personal data (Forsythe, S., Liu, C., Shannon, D., & Gardner, L. C., 2006). In a study conducted by (Fei L., Kent B. , & Monika, 2013), it was found that consumers highly value the convenience offered by online retailers. Features such as effortless browsing, intuitive checkout processes, and personalized services enhance the convenience of online shopping. When consumers experience these facets of convenience, it positively influences their perception of benefits related to the online shopping process. Recognizing that personal data sharing leads to smoother and hassle-free shopping experiences, consumers are more inclined to disclose their information. (Rolph, Srinivasan, & Kishore, 2002) explored convenience specifically in the realm of online grocery shopping. Their research demonstrated that consumers' perceptions of convenience directly correlate with their willingness to share personal information. Simplified search processes, user-friendly interfaces, and streamlined interactions all contribute to favorable attitudes toward data sharing. This study underscores the pivotal role of convenience as a moderating factor, enhancing the perceived benefits associated with personal data sharing in e-commerce.

In summary, convenience, emphasizing the simplicity and user-friendliness of online shopping, significantly influences the perceived benefits of data sharing. When customers enjoy a high level of convenience during their online interactions, they recognize benefits related to effortless shopping experiences. As a result, they are more willing to share personal data, acknowledging that such sharing contributes to smoother and more enjoyable online shopping journeys. For

businesses aiming to encourage data sharing, prioritizing strategies that enhance convenience is key to adding value to customers' e-commerce experiences.

Cost Savings in the context of e-commerce is a key moderating variable that strongly influences the perceived benefits of sharing personal data (Jen-Hung & Yang, 2010). Research by (Manfred, et al., 2021) provides insights into the psychological mechanisms behind cost savings as a driver for data sharing. They found that consumers are more inclined to share personal information when they perceive a direct correlation between data provision and monetary benefits. For instance, offering incentives such as cashback on purchases made through a specific e-commerce platform fosters a sense of financial gain, which significantly boosts data sharing intentions. Moreover (Veronika , 2020) conducted a comprehensive analysis of the role of cost savings in online shopping behavior. They discovered that many consumers are highly motivated by discounts and price reductions. E-commerce companies that effectively communicate how sharing personal data can lead to these cost savings through tailored promotions, exclusive discounts, or loyalty programs can greatly influence consumer decisions. However, it's important to note that the effectiveness of cost savings as a moderating variable can also be influenced by factors like trust. Research by (Sonja & A.E., 2023) emphasized that consumers must trust the e-commerce platform to deliver on its promises of cost savings. When trust is established, and consumers believe that sharing data will genuinely result in financial benefits, their willingness to provide personal information increases (Metzger, 2004).

In conclusion, cost savings are a potent moderating variable for benefits associated with personal data sharing in e-commerce. Research demonstrates that individuals are more willing to share data when they perceive a direct link between data provision and financial gains. E-commerce businesses that effectively leverage this understanding, along with building trust, can enhance the perceived benefits of data sharing, ultimately encouraging customers to share their personal information.

Time Savings as a moderating variable for benefits in data sharing within the realm of e-commerce carries significant implications for consumers. A study by (Felix & Rembulan, 2023) delves into the concept of time savings in e-commerce. Their research emphasizes that consumers value convenience and efficiency in their online shopping experiences. When e-commerce platforms offer personalized and time-efficient services based on shared personal data, users are more likely to engage in data sharing. This is particularly pertinent in today's fast-paced digital age where consumers seek convenience and instant gratification in their online interactions.

Furthermore, research (Zhao & Morad, 2017) focused on consumer perceptions of time savings in online shopping. Their findings indicate that individuals are more willing to provide personal data when they believe it will result in quicker and more streamlined shopping experiences. For example, features such as saved payment methods, personalized product recommendations, and one-click purchases all contribute to time savings. Consumers recognize these benefits and are more inclined to share personal information to access them. The moderating role of time savings in benefits is closely tied to customer expectations regarding efficiency and convenience (Yunynun, Xiaoyu, & Yanzhe, 2023). In e-commerce, consumers often prioritize time-saving features that enhance their online shopping experience. E-commerce companies that understand this preference and implement strategies to provide faster and more convenient services through data-driven personalization can successfully boost consumers' willingness to share their personal information (Anil, Jay, & Tingting, 2016).

In summary, time savings emerge as a significant moderating variable for benefits in data sharing in e-commerce. Consumers increasingly seek efficient, convenient online shopping experiences, and personalization plays a key role in delivering these benefits. When consumers perceive that data sharing leads to time savings, they are more likely to engage in such sharing. E-commerce businesses that prioritize and communicate these advantages effectively can leverage this moderating variable to enhance their data acquisition strategies.

2. METHODOLOGY OF THE EMPIRICAL RESEARCH ON FACTORS INFLUENCING PERSONAL DATA SHARING IN ECOMMERCE

2.1 The purpose of empirical research

The empirical research in this study aims to deepen our understanding of the factors affecting personal data sharing in e-commerce contexts, building upon insights from the literature analysis. The primary objective is to identify and analyze these key factors, including internet trust, perceived benefits, perceived risks, past experiences, personalization, convenience, cost savings, and time savings.

By investigating the interplay of these variables, the study seeks to explain how they collectively influence consumers' willingness to share their personal data in e-commerce transactions. This research goes beyond theoretical discussions to empirically quantify the impact of these factors on actual behavior intention, providing a comprehensive model of the causal relationships involved.

2.2 Research model and hypothesis

The model was developed based on the privacy calculus theory, previous studies who have used a similar model have been used as a source in this research (Yannic & Nicole C, 2022), below is the modified version of the model that includes internet trust, perceived risks and benefits as an independent variables. Perceived risks having two moderating variables such as Privacy concern and Past experiences, while Benefits having four moderating variables: Personalization, Convenience, Cost savings and Time savings. Internet trust is another independent variable, but it doesn't have a moderating variable in this model. All three moderating variables are connected to our dependent variable Willingness to disclose data.
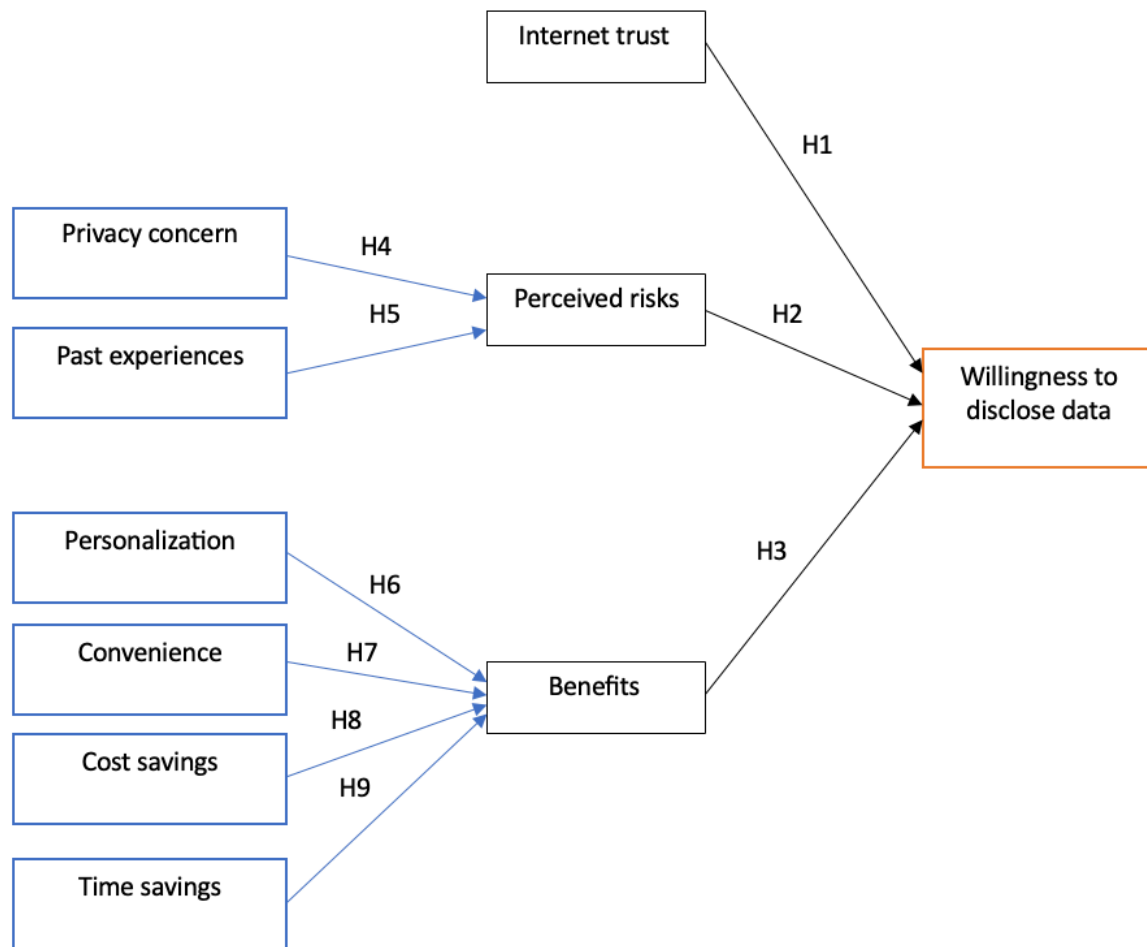
Figure 3. Authors research model

H1: Internet Trust will positively affect Willingness to Disclose Data

This hypothesis builds on research demonstrating that internet trust is a significant factor influencing individuals' willingness to share personal data online. Studies (Dinev & Hart, 2006) and (Mohr & Walter, 2019) emphasize that a higher level of trust in online platforms and retailers leads to increased willingness to disclose personal data. The more individuals trust the online environment's security and ethical conduct, the more likely they are to be willing to share their data, which subsequently impacts their behavioral intentions in the e-commerce context.

H2: Perceived Risks will negatively affect Willingness to Disclose Data.

Perceived risks, as a critical component in the Privacy Calculus model, are expected to negatively affect individuals' willingness to disclose data. Studies, such as (Dinev & Hart, 2006) and (Trepte & Reinecke, 2017), have highlighted that individuals who perceive higher risks associated with data disclosure tend to be more hesitant about sharing their personal information. This, in turn,

can lead to decreased willingness to disclose data and, consequently, influence their behavioral intentions in e-commerce.

H3: Benefits will positively affect Willingness to Disclose Data.

The hypothesis that benefits positively affect willingness to disclose data is grounded in the idea that individuals are more inclined to share their personal information when they perceive tangible advantages. Prior research has consistently shown that personalization, convenience, cost savings, and time savings in e-commerce positively influence individuals' willingness to share data (Han, Rathindra, & Heng, 2010). As the perceived benefits increase, individuals become more willing to disclose their data, which, in turn, can shape their behavioral intentions regarding data sharing in e-commerce.

H4: Privacy Concern will positively affect Perceived Risks.

This hypothesis posits that privacy concern, as a moderating variable, amplifies the negative impact of perceived risks on individuals' willingness to disclose data. When individuals have higher privacy concerns, they tend to become more sensitive to the perceived risks associated with data disclosure. Research by (Dinev & Hart, 2006) has suggested that individuals with greater privacy concerns may perceive even higher risks when sharing their data, which can ultimately impact their willingness to disclose data.

H5: Past Experiences will positively affect Perceived Risks.

This hypothesis suggests that individuals with more extensive past experiences in e-commerce may have a heightened perception of risks associated with data disclosure. Past experiences can make individuals more aware of potential risks or privacy issues, leading to an increased perception of risks when considering sharing personal data. This idea aligns with the research conducted by (Acquisti & Loewenstein, 2015), which indicates that individuals with more extensive e-commerce experiences may be more cautious regarding data sharing.

H6: Personalization will positively affect Benefits.

The hypothesis that personalization positively affects perceived benefits is informed by studies that highlight the importance of personalized experiences in e-commerce. Research by (Mohr & Walter, 2019) has shown that personalization strategies employed by online retailers can significantly enhance perceived benefits, such as convenience and efficiency. When customers

perceive that e-commerce platforms offer personalized experiences, they are more likely to experience greater benefits, which can positively influence their willingness to disclose data.

H7: Convenience will positively affect Benefits.

This hypothesis suggests that a higher level of convenience in e-commerce positively affects perceived benefits. Studies by (Han, Rathindra, & Heng, 2010) have indicated that a convenient online shopping experience contributes to enhanced perceived benefits. When customers find e-commerce platforms easy to use and navigate, they are more likely to perceive benefits in terms of efficiency and satisfaction, which can subsequently influence their willingness to disclose data.

H8: Cost Savings will positively affect Benefits.

This hypothesis proposes that the perception of cost savings in e-commerce positively impacts the perceived benefits of using such platforms. Research by (Mohr & Walter, 2019) has highlighted that e-commerce platforms offering cost-effective solutions can contribute to increased perceived benefits, such as value for money. When customers believe that they can save money by using e-commerce services, they are more likely to perceive benefits and, as a result, may be more willing to disclose their data.

H9: Time Savings will positively affect Benefits.

This hypothesis suggests that time savings, as a perceived benefit in e-commerce, positively affects the overall perceived benefits of using online platforms. Studies by (Han, Rathindra, & Heng, 2010) have shown that customers who experience time-saving features when using e-commerce services tend to perceive more substantial benefits in terms of efficiency and convenience. Therefore, as the perception of time savings increases, it is likely to enhance the overall perceived benefits of using e-commerce platforms, which, in turn, can influence individuals' willingness to disclose data.

2.3 Research design, measurement tools and sampling method

Discussing research design, it should be noted that the evaluation of a given research will be carried out according to three criteria. These are: Purpose of the research, information retrieval and application.

- It must be said that the research is applied. Despite its applied nature, it should be noted that the study is pilot, incomplete for a number of reasons, and it is not generalizable. However, this study is interesting material. The present study may provide useful information for other similar, larger-scale studies. It can be a landmark and a source of information for researchers working on other similar issues.

- In terms of objectives - As for the evaluation of the research by the second criterion named, it should be noted that in terms of objectives, the research is descriptive. The research is descriptive because it describes the attitude and attitude of the population towards the issue at this time.

For this research, a survey in the form of a questionnaire is used as a research tool, which includes various types of questions. The survey included screening questions, questions related directly to those factors which influence personal data sharing in ecommerce, as well as demographic questions.

At the beginning of the survey, a screening question will be used:

Question 1. Student from Vilnius University currently is performing a study, which is aimed at finding out factors influencing personal data sharing in ecommerce. Please answer the questions by ticking the correct options. The information provided by you will be anonymous, only generalized data will be used.

This form usually takes up to 7-8 minutes.

Question 2 - multiple-choice question will be asked to understand behavior intention.

Question 3 - multiple-choice question to understand which data is shared mostly in ecommerce

Question 4-11 – multiple-choice question will be asked about those factors that affect on personal data sharing.

In this study, to measure the decision was made to evaluate the connection between various factors using a 5-point likert scale. On this scale, a rating of 1 signifies "Strongly Disagrees," while a rating of 5 indicates "Strongly Agrees." Furthermore, the survey includes several demographic

inquiries that inquire about information such as gender, age, respondent income, educational background, and relationship status. Respondents in this study are expected to express their perspectives on a range of factors, the combination of which could potentially impact their final decision.

A four-item scale describing behavior intention was adapted from (Steven & Izak, 2011). Fifteen item scale descibing which data customer's are willing to share in ecommerce were adapted from (Gupta, Iyer, & Weisskirch, 2010). Eight-item construct describing internet trust was adapted from (Kwek, Teck-Chai, & Tan, 2010). Four-item scale describing perceived risk was adapted from Dinev & Hart, 2006) and (Malhotra, Kim, & Agarwal, 2004). Four item scale describing benefits was adapted from (Dinev,, Xu, Smith, & Hart, 2013). Five item construct describing privacy concerns was adapted from (Smith, Milberg, & Burke, 1996). Three item scale describing past experiences was adapted from (Khalifa & Vanessa, 2007). Three item construct describing personalization was adapted from (Verhagen, Nes, Feldberg, & Dolen, 2014). Four item scale describing convenience was adapted from (Sandra , Chuanlan, David, & Liu, 2006). Three-point construct characterizing cost saving was adapted from (Huang & Yang, 2010). Three item scale construct characterizing time saving was adapted from (Kilibarda, Vasić, & Kaurin, 2019).

In this section, we will present the research instrument, which will be a questionnaire featuring primarily closed-ended questions, except for age, which will be left as an open-ended question. The questionnaire will be divided into two parts: the first part will cover the constructs under investigation, while the second part will gather demographic information. After comparing data collection methods with previous studies, we have chosen to employ a quantitative approach, specifically through a survey in the form of an online questionnaire. Our decision is rooted in several factors, such as the cost-effectiveness of surveys, their adaptability for gathering a substantial amount of data, and their capacity to target participants from various regions throughout Georgia.

The decision to select the category of individuals aged 18 and above was motivated by practical considerations. Individuals under the age of 18 often lack the ability to make autonomous decisions, and may not possess the same level of rationality as adults. Notably, the population of Georgia stands at approximately 3.7 million people. However, by specifically focusing on the age group of 18 and older, our research is estimated to encompass about 2,817,671 individuals, based on data (World Population Review, 2023).

The formula of Dikčius, 2005 was used to calculate required size of respondents.

Where:

N - required sample size

z - standard error associated with the selected level of confidence

p - estimated share of the population

e - valid sampling error

$$N=\frac{z^2 p(1-p)}{e^2}$$

Confidence level for this study will be 95%. Additionally, for this case standard error – Z is 1.96 and acceptable sample error - e = 5% (0.05) was chosen. After inserting these numbers in the formula calculated necessary sample for this study, which is n=385. In thus, 385 respondents will be from Georgia.

2.4 Designing Questionnaire, data collection and preparation

In the research, we examined how factors influence personal data sharing in E-Commerce. To best understand exactly which factors, we utilized a Likert scale ranging from 'strongly disagree' to 'strongly agree' to measure people's opinions. Consequently, it was necessary to establish a scale for the various factors in order to effectively demonstrate their impact on motivation. Additionally, the Cronbach Alpha reliability coefficient for these scales should exceed 0.6 to ensure the factors are dependable. The chosen measurements are presented below.

Table 1 Development of measurement for Willingness to disclose data - (Gupta, Iyer, & Weisskirch, 2010)

No.	Original Scale Item	Modified Scale Item
1.	Name	I am willing to disclose my name
2.	Home e-mail address	I am willing to disclose my home e-mail address
3.	Home address	I am willing to disclose my home address
4.	Home phone number	I am willing to disclose my home phone number
5.	Work e-mail address	I am willing to disclose my work e-mail address
6.	Work address	I am willing to disclose my work address
7.	Work phone number	I am willing to disclose my work phone number
8.	Credit card details	I am willing to disclose my credit card details
9.	Date of birth	I am willing to disclose my date of birth

10.	Age	I am willing to disclose my age
11.	Weight	I am willing to disclose my weight
12.	Medical history	I am willing to disclose my medical history
13.	Media habits	I am willing to disclose my media habits
14.	Financial information (e.g. income, credit history)	I am willing to disclose financial information (e.g. income, credit history)
15.	Lifestyle data (e.g. number of pets, house owner or rental)	I am willing to disclose my lifestyle data (e.g. number of pets, house owner or rental)

Table 2 Development of measurement for Internet Trust - (Kwek, Teck-Chai, & Tan, 2010)

No.	Original Scale Item	Modified Scale Item
1.	The web site of this web-retailer is trustworthy and honest.	I trust that the website is trustworthy and honest
2.	The web site of this web-retailer wants to keep promises and obligations.	It trust that the website wants to keep promises and obligations
3.	The information provided by the web-retailer is plentiful and of sufficient quality.	I trust that the information provided by the website is plentiful and of sufficient quality
4.	The infrastructure of the web site of this web-retailer is dependable.	I trust that the infrastructure of the website is dependable
5.	The web site of this web-retailer offers secure personal privacy.	I trust that the website offers secure personal privacy
6.	The web site of this web-retailer keeps my best interests in mind.	I trust that the website keeps my best interests in mind
7.	The web site of this web-retailer would not behave opportunistically (e.g., gaining money illegally).	I trust that the website would not behave opportunistically (e.g. gaining money illegally)
8.	The performance of the web site of this web-retailer fulfills my expectation.	I trust that the website's performance fulfills my expectations

Table 3 Development of measurement for Perceived risk - (Dinev & Hart, 2006) & (Malhotra, Kim, & Agarwal, 2004)

No.	Original Scale Item	Modified Scale Item

1.	In general, it would be risky to give personal information to websites.	I think in general, it would be risky to give personal information to websites
2.	There would be high potential for privacy loss associated with giving personal information to websites.	I think there would be high potential for privacy loss associated with giving personal information to websites
3.	Personal information could be inappropriately used by websites	I think personal information could be inappropriately used by websites
4.	Providing websites with my personal information would involve many unexpected problems.	I think providing websites with my personal information would involve many unexpected problems

Table 4 Development of measurement for Benefits - (Dinev,, Xu, Smith, & Hart, 2013)

No.	Original Scale Item	Modified Scale Item
1.	Revealing my personal information to this web shop will help me obtain information/products/services I want	I think by revealing my personal information to this web shop will help me obtain information/products/ services I want
2.	I need to provide my personal information so I can get exactly what I want from this web shop	I think by revealing my personal information I can get exactly what I want from this web shop
3.	I believe that as a result of my personal information disclosure, I will benefit from a better, customized service and/or better information and products	I think by revealing my personal information disclosure, I will benefit from a better, customized service and/or better information and products
4.	I am more willing to provide my personal information to this web shop when this results in a better price or a discount for a future purchase	I think by revealing my personal information I will get better price or a discount for a future purchase

Table 5 Development of measurement for Privacy Concern – (Smith, Milberg, & Burke, 1996)

No.	Original Scale Item	Modified Scale Item
1.	It bothers me when these websites ask me for this much personal information.	It bothers me when these websites ask me for this much personal information.

No.		
2.	I am concerned that these websites are collecting too much personal information about me.	I am concerned that these websites are collecting too much personal information about me.
3.	I am concerned that unauthorized people may access my personal information.	I am concerned that unauthorized people may access my personal information.
4.	I am concerned that these websites may keep my personal information in a non accurate manner.	I am concerned that these websites may keep my personal information in a non accurate manner.
5.	I am concerned about submitting information to websites.	I am concerned about submitting information to websites.

Table 6 Development of measurement for Past Experiences – (Khalifa & Vanessa, 2007)

No.	Original Scale Item	Modified Scale Item
1.	I am satisfied with the pre-purchase experience of internet shopping website (e.g. consumer education, product search, quality of information about products, product comparison)	My pre-purchase experience of internet shopping website (e.g. consumer education, product search, quality of information about products, product comparison) was satisfactory
2.	I am satisfied with the purchase experience of internet shopping websites (e.g. ordering payment procedure)	My purchase experience of internet shopping website (e.g. ordering payment procedure) was satisfactory
3.	I am satisfied with the post-purchase experience of internet shopping website (e.g. customer support and after sales support, handling of returns/refunds, delivery care).	My post-purchase experience of internet shopping website (e.g. customer support and after sales support, handling of returns/refunds, delivery care)

Table 7 Development of measurement for Personalization - (Verhagen, Nes, Feldberg, & Dolen, 2014)

No.	Original Scale Item	Modified Scale Item
1.	The virtual agent understood my needs	I think e-commerce website understood my needs

2.	The virtual agent knew what I want	I think e-commerce website knew what I wanted
3.	The virtual agent took my needs as it's own preferences	I think e-commerce website took my needs as it's own preferences

Table 8 Development of measurement for Convenience - (Sandra , Chuanlan, David, & Liu, 2006)

No.	Original Scale Item	Modified Scale Item
1.	Can shop in privacy of home	I Can shop in privacy of home
2.	I don't have to leave home	I do not have to leave home
3.	Can shop whenever I want	I can shop whenever I want
4.	Can save the effort of visiting stores	I can save the effort of visiting stores

Table 9 Development of measurement for Cost Savings - (Huang & Yang, 2010)

No.	Original Scale Item	Modified Scale Item
1.	Online shopping can save money.	I think online shopping can save money
2.	I can compare price easily via internet.	I think I can compare price easily via internet
3.	I spend less on the internet.	I think I can spend less on the internet

Table 10 Development of measurement for Time Savings - (Kilibarda, Vasić, & Kaurin, 2019)

No.	Original Scale Item	Modified Scale Item
1.	Online shopping saves time	I think online shopping saves time
2.	Online shopping offers possibility of shopping 24/7	I think online shopping offers possibility of shopping 24/7
3.	Online shopping is the smart way to spend time	I think online shopping is the smart way to spend time

3. EMPIRICAL ANALYSIS OF FACTORS ON INFLUENCING PERSONAL DATA SHARING IN ECOMMERCE

3.1 Sample and measures

As it was described in methodological part, the online survey was conducted to examine the Factors influencing personal data sharing ecommerce in Geogia. Data was collected from December 1st to December 19th and IBM SPSS Statistics 29 was used for analysis of collected data. The questionnaire was generated using Google Forms and was distributed through social networks, primarily via Facebook. Additionally, mutual friends played a crucial role in assisting with sharing and expanding the reach to as many participants as possible. Before the calculations it was decided to present respondents information. The total number of respondents was 385. The survey took place online, and participants were required to possess the ability to comprehend and respond to questions in the English language, as well as be aged 18 or older. This choice was made due to the fact that individuals under the age of 18 lack the capacity to use ecommerce sites independently without the accompaniment of their parents or other responsible adults. At the outset of the questionnaire, participants were queried about their confidence in responding to questions in English. Subsequently, respondents were prompted to share their thoughts about data sharing in ecommerce. Additional demographic questions were included in the study to provide a more complete picture and accurate analysis. Everyone who responded was asked to share their demographic information. In the Table 11, it can be clearly variable that 48.31 percent of respondents are female (186 respondents) and 51.69 percent are male (199 respondents).

Table 11. Sample structure based on gender.

Gender	Frequency	Percent	Valid Percent	Cumulative Percent
Female	186	48.31	48.31	48.31
Male	199	51.69	51.69	100.0
Total	385	100.0	100.0	

The next demographic aspect was related to the age of respondents. Based on data obtained during the research which are illustrated in Table 12, it can be conducted that vast majority of respondents are in the range of 22-25 and their percentage is 44.42 (171 respondents). On the second place are aged 30-35 years old respondents, which is 18.44 (71 respondents). On the third place are aged 40 and over (58 respondents) which is 15.06 percent. On the fourth place are 26-29 years old, 38 respondents, which is 9.87 percent. For further information about age please check Table 12.

Table 12. Sample structure based on age.

Age	Frequency	Percent	Valid Percent	Cumulative Percent
18-21 years old	36	9.35	9.35	9.35
22-25 years old	171	44.42	44.42	53.77
26-29 years old	38	9.87	9.87	63.64
30-35 years old	71	18.44	18.44	82.08
36-39 years old	11	2.86	2.86	84.94
40 and over	58	15.06	15.06	100.0
Total	385	100.0	100.0	

Another demographic question was addressed to respondents regarding their income. Based on the research results, it can be concluded that 28.83 percent of respondents have incomes in the range 2001-3000$ (111 respondents), 23.64 percent have incomes less than 1000$ (91 respondents). More information regarding the respondent's income can be visible in the Table 13.

Table 13. Sample structure based on the income

Income (Monthly)	Frequency	Percent	Valid Percent	Cumulative Percent
Less than 1000$	91	23.64	23.64	23.64
1001-1500$	79	20.52	20.52	44.16
1501-2000$	90	23.38	23.38	67.54
2001-3000$	111	28.83	28.83	96.37
More than 3001$	14	3.64	3.64	100.0
Total	385	100.0	100.0	

The next demographic aspect was related to marital status. Based on the data obtained during the research which are illustrated in the Table 14. It can be concluded that the vast majority of respondents are single 58.70 percent (226 respondents), 20.78 percent of respondents are in a relationship (80 respondents) and 13.51 percent is married (52 respondents), for further information please check Table 14.

Table 14. Sample structure based on the marital status.

Marital Status	Frequency	Percent	Valid Percent	Cumulative Percent
Divorced	27	7.01	7.01	7.01
In a relationship	80	20.78	20.78	27.79
Married	52	13.51	13.51	41.3
Single	226	58.70	58.70	100.0
Total	385	100.0	100.0	

In the Table 15 is presented employment status. Based on the results, 84.16 percent is employed (32 respondents). For more information about employment status is visible in the Table 15.

Table 15. Sample structure based on the employment status.

Employment Status	Frequency	Percent	Valid Percent	Cumulative Percent
Employed	324	84.16	84.16	84.16
Student	36	9.35	9.35	93.51
Unemployed	24	6.23	6.23	100.0
Total	385	100.0	100.0	

In the Table 16 we can see that major of the respondents has bachelor's degree – 60.78 percent (234 respondents) and 30.39 percent of the respondents has master's degree (117 respondents).

Table 16. Sample structure based on the education status.

Education status	Frequency	Percent	Valid Percent	Cumulative Percent
Bachelor	234	60.78	60.78	60.78
College	12	3.12	3.12	63.9
High School	23	5.95	5.95	69.85
Master's Degree	117	30.39	30.39	100.0
Total	100.0	100.0	100.0	

Summarizing all presented information above, it is clearly visible that majority respondents are male, most of the respondents are 22-25 years old, salary range is 2001-3000$, are single and have bachelor's degree.

Reliability tests and scales

To make sure the data complies with standards, reliability tests were run on each construct before data analysis. To do this procedure IBM SPSS Statistics 29 was used. (Lavrakas, 2008; (Tavakol & Dennick, 2011; Salkind, 2015) It is recommended for Cronbach's alpha (α) to be more than 0.6. Higher values of Cronbach's alpha (α) are 0.928 and 0.969. All results of this procedure are presented in Table 17. Please see bellow.

Table 17. Cronbach's alpha (α) for research scales.

Scale	Enitial Amount of Variables	Final amount of variables	Cronbach's alpha (α)
Interest Trust	8	8	0.960
Perceived Risk	4	4	0.838
Benefits	4	4	0.859
Privacy Concern	5	5	0.928
Past Experiences	3	3	0.913
Personalization	3	3	0.916
Convenience	4	4	0.901
Cost Savings	3	3	0.887
Time Savings	3	3	0.882
Willingness to disclose data	15	15	0.904

3.2 Analysis of factors influencing personal data sharing in ecommerce

Multiple regression was used to quantify the correlations and differences between independent and dependent variables, which were previously provided in the study model, and to confirm or reject a hypothesis. It was decided to describe the structure of the information presentation in order to facilitate a better understanding of the presented data regarding the hypothesis. The topmost section will display the actual hypotheses, while the middle section will provide information and the computations' outcomes. The bottom section will display the model.

HYPOTHESES:

H1: Internet Trust will positively affect Willingness to disclose data;

H2: Perceived Risks will negatively affect Willingness to disclose data;

H3: Benefits will positively affect Willingness to disclose data;

In the beginning, it was decided to test hypotheses related to willingness to disclose data. For checking whether there is relationship between variables (Internet Trust, Perceived Risks, Benefits) that may affect Willingness to disclose data, multiple regression analysis was used. Calculations showed that, $p<0.001$, and $F=132.308$. Additionally, it can be concluded that of these variables explain 45.6% (R Square=0.456) of willingness to disclose data which is the dependent variable. After making sure that the results are significant, the outcome of coefficient model can be considered. The results of multiple regression are presented in Table 18, which demonstrates that 1 out of 3 hypotheses was rejected. Variables like Internet Trust ($\beta=0.341$, $p<0.001$, $t=3.779$), Perceived Risks ($\beta=0.173$, $p<0.001$, $t=1.946$) and Benefits ($\beta=0.317$, $p<0.001$, $t=3.101$) shows that a positive impact on Willingness to disclose data. As it was told previously, H2 may have negative affect on Willingness to disclose the data, but we can see that it was rejected and H2 also has positive impact. Therefore, based on findings it can be stated that hypotheses 1 and 3 are confirmed. Perceived Risk also positively affects Willingness to disclose data.

Table 18. Results on relationships of different variables towards Willingness to disclose data.

Hypotheses	Variables	Standardized Coefficients B	Standardized Coefficients Std.Error	Standardized Coefficients Betta	t	Sig.	Confirmed/Rejected
H1	Internet Trust	0.325	0.025	0.341	3.779	<0.001	Confirmed
H2	Perceived Risk	0.204	0.028	0.173	1.946	<0.001	Rejected
H3	Benefits	.310	0.028	0.317	3.101	<0.001	Confirmed

In order to test relationship between Perceived Risks and variables which may affect it (Privacy Concern, Past Experience), multiple regression was implemented. The data showed that the model is significant, since $p<0.001$ and $F=406.047$. Additionally, this variable explains 61% (R Square=0.610) of Perceived Risks, which is dependent variable. Therefore the results of these calculations were presented in the Table 19, and it can be stated that 2 out of 2 hypotheses were confirmed. Privacy Concern has a positive impact on Perceived Risk ($\beta=0.412$, $p<0.001$, $t=9.215$).

Past Experience has a significant impact on Perceived Risks (β=0.499 p<0.001, t=11.169). Therefore, based on findings it can be stated that hypothesis 4 and 5 are confirmed.

Table 19. Results on relationships of different variables towards Perceived Risks.

Hypotheses	Variables	Standardized Coefficients B	Standardized Coefficients Std.Error	Standardized Coefficients Betta	t	Sig.	Confirmed/Rejected
H4	Privacy Concern	0.443	0.043	0.412	9.215	<0.001	Confirmed
H5	Past Experience	0.537	0.063	0.499	11.169	<0.001	Confirmed

In order to test the relationship between Benefits and variables which may affect it (Personalization, Convenience, Cost Savings, Time Savings), multiple regression was used. The data showed that the model is significant, since p<0.001 and F=152.263. Additionally, this variable explains 50.6% (R Square=0.506) of Benefits which is dependent variable. Therefore, the results of these calculations were presented in the Table 20, and it can be stated that 1 out of 3 is rejected. Personalization has a positive impact on Benefits (β=0.031, p<0.001, t=0.608), Convenience has a positive impact on Benefits (β=0.82, p<0.001, t=1.069) and Time Savings has a positive impact on Benefits (β=0.098, p<0.001, t=1.901).

Table 20. Results on relationships of different variables towards Benefits.

Hypotheses	Variables	Standardized Coefficients B	Standardized Coefficients Std.Error	Standardized Coefficients Betta	t	Sig.	Confirmed/Rejected
H6	Personalization	0.447	0.041	0.031	0.608	<0.001	Confirmed
H7	Convenience	0.335	0.69	0.082	1.069	<0.001	Confirmed
H8	Cost Savings	-0.072	0.77	-0.073	-0.943	0.346	Rejected
H9	Time Savings	0.289	0.047	0.098	1.901	<0.001	Confirmed

3.3 Discussion and additional findings

The main goal of this research was to determine the main factors which may or may not affect on personal data sharing in ecommerce. Following the empirical research, it was discovered that 2 out of 9 hypotheses was rejected. Figure 4 represents which hypotheses were confirmed and which was rejected.
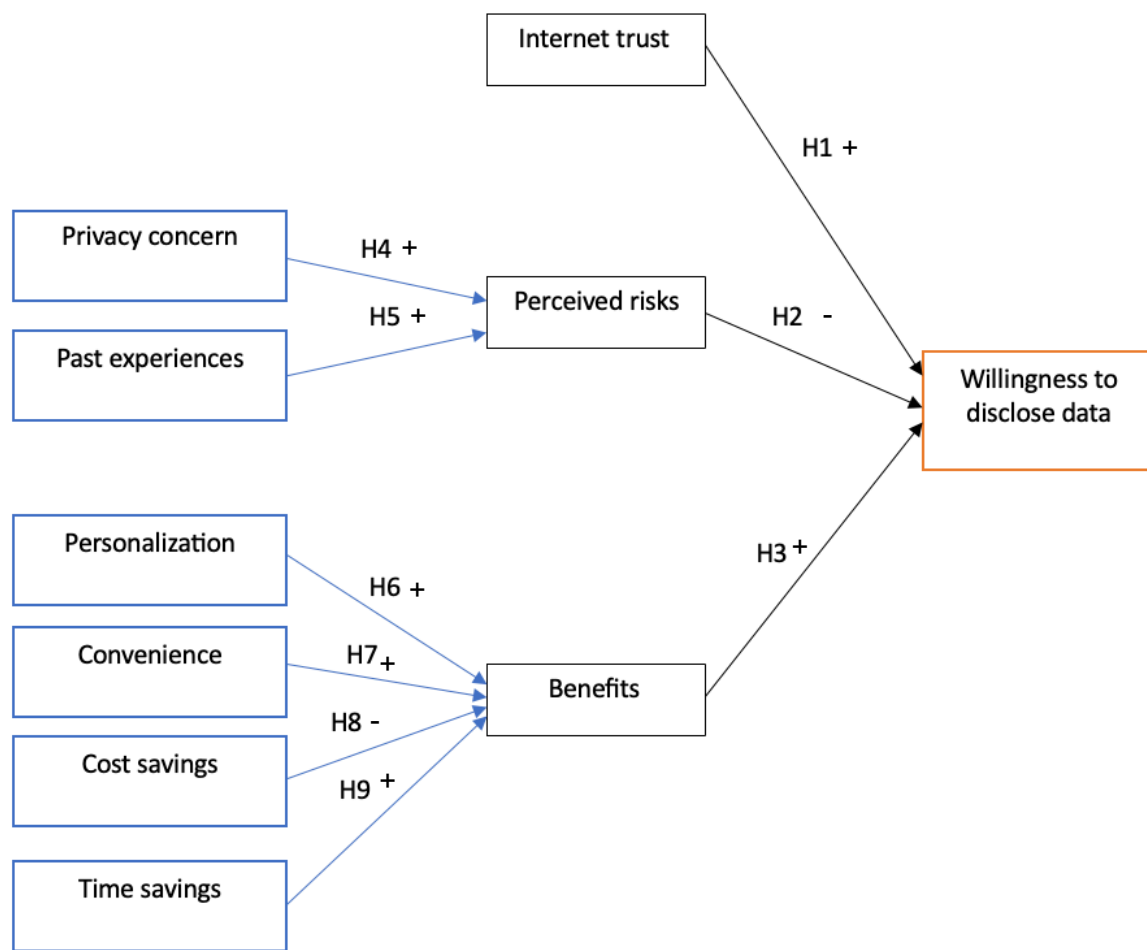
Figure 4. Confirmed or rejected hypotheses based on the research model

The main goal of this study was to find out which factors influence personal data sharing in ecommerce. Results of the study indicates, that majority of previously presented hypotheses were confirmed, meaning that Internet Trust, Perceived Risks and Benefits has positive effect on willingness to disclose data. Thus, it can be concluded that factors which are presented in the model are interlinked, therefore impacting one variable in the beginning of the model could impact the last dependent variable, which is willingness to disclose data. As the problem of the paper was limited research and data, which means that it was limited find data sources that directly addresses to my research question.

CONCLUSIONS AND RECOMMENDATIONS

The aim of this thesis was investigate and understand the influence of perceived risks and benefits on individua's willingness to share personal data in the context of e-commerce. After the analysis of scientific literature, methodology of the empirical research on factors influencing personal data sharing in ecommerce and empirical analysis there was made some conclusions and recommendations. These conclusions and recommendations provide a foundation for future research endeavors in the realm of factors influencing personal data sharing in e-commerce. By addressing these research gaps, scholars can contribute to a more nuanced understanding of user behavior and help businesses develop strategies that align with user expectations and concerns.

Conclusions:

1. **Internet Trust:** The research robustly establishes that internet trust plays a pivotal role in influencing individuals' decisions to disclose personal data in e-commerce settings. Building on the Privacy Calculus model, the positive relationship observed underscores the critical importance of a secure and trustworthy online environment. Strategies aimed at enhancing internet trust, such as transparent data handling practices and robust security measures, are paramount for fostering a positive user inclination towards data sharing.

2. **Perceived Risks:** Contrary to conventional wisdom, the hypothesis linking perceived risks to willingness to disclose data is rejected. The nuanced nature of risk perceptions in e-commerce calls for an in-depth exploration into the specific dimensions that users consider when evaluating potential risks. This unexpected result prompts a reevaluation of traditional risk-benefit models and highlights the need for businesses to tailor risk-mitigation strategies based on these nuanced factors.

3. **Benefits:** The study provides conclusive evidence that perceived benefits, encompassing personalization, convenience, and time savings, exert a positive influence on individuals' willingness to disclose data. Aligning with the Privacy Calculus model, these findings emphasize the significance of creating an online ecosystem that prioritizes user experience and tangible advantages. Businesses should strategically leverage these benefits to encourage and facilitate user engagement in e-commerce transactions.

4. **Privacy Calculus:** A review of the Privacy Calculus model reveals its continued relevance in explaining personal data sharing behaviors in e-commerce. The delicate balance between privacy risk beliefs, confidence, and enticement beliefs, as proposed by (Dinev & Hart, 2006), underscores the model's effectiveness in capturing the intricate dynamics that shape user intentions. Privacy Calculus provides a robust theoretical framework for understanding how individuals navigate the trade-offs between privacy concerns and the perceived benefits of data disclosure.

Recommendations:

1. **Enhance Internet Trust through Transparency:** Businesses should prioritize transparency as a cornerstone in building and enhancing internet trust. Clear communication about data handling practices, security measures, and privacy policies can demystify the online environment for users, fostering a sense of confidence and trust. This transparency should extend to how user data is utilized, providing individuals with a clear understanding of the benefits derived from data sharing.

2. **Tailor Privacy Mitigation Strategies:** Acknowledging the confirmed impact of privacy concerns on perceived risks, businesses should tailor strategies to address and mitigate these concerns. Context-specific privacy features, user-controlled data permissions, and regular privacy audits can contribute to a more nuanced and user-centric approach to data protection. Understanding the intricacies of user apprehensions allows for the development of targeted and effective privacy enhancement measures.

3. **Strategic Leverage of Perceived Benefits:** To capitalize on the confirmed positive impact of perceived benefits on data disclosure, businesses should strategically leverage personalization, convenience, and time savings. Tailoring online experiences, streamlining transaction processes for user convenience, and highlighting time-saving features can maximize perceived benefits. This strategic focus on enhancing user advantages not only encourages data disclosure but also contributes to overall user satisfaction and loyalty.

4. **Continuous User-Centric Adaptation:** The dynamic nature of e-commerce necessitates continuous monitoring and adaptation. Businesses should establish mechanisms for

ongoing user feedback, incorporating user preferences and expectations into the evolution of their platforms. By staying attuned to user sentiments and preferences, businesses can proactively adapt strategies to align with evolving user behaviors and expectations, ensuring sustained success in personal data sharing contexts.

Limitations of the research

While research on the factors influencing personal data sharing in e-commerce provides valuable insights, it's important to acknowledge potential limitations:

The study's reliance on a specific sample raises concerns about sampling bias and respondents country of origin, in this case, Georgia. If the selected participants do not adequately represent the diversity of the broader e-commerce user base, the external validity of the findings may be compromised. Researchers must exercise caution when generalizing the results to a larger and more diverse population of online users across different countries. Research also focuses on a specific set of factors, potentially overlooking other variables that might influence personal data sharing. Factors like the impact of social networks or varying levels of technological literacy are not extensively considered. Future studies should broaden their scope to encompass a more comprehensive range of potentially influential variables.

Recognizing these limitations provides transparency and helps readers and future researchers understand the boundaries of the current study. Addressing these limitations in future research can contribute to a more comprehensive and nuanced understanding of the factors influencing personal data sharing in various contexts.

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SUMMARY

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FACTORS INFLUENCING PERSONAL DATA SHARING IN ECOMMERCE

Master Thesis

Academic Supervisor: Mindaugas Degutis

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Specialization: Marketing and Integrated Communication

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This Master's degree paper delves into the complex landscape of personal data sharing within the e-commerce domain. The study aims to uncover the underlying factors that influence individuals' decisions to disclose personal information in online transactions. Nine hypotheses are tested, exploring the roles of internet trust, perceived risks, benefits, privacy concerns, past experiences, personalization, convenience, cost savings, and time savings in shaping users' attitudes towards data sharing.

The research employs a cross-sectional design, engaging a sample population to gather insights into the relationships between the aforementioned factors. Noteworthy findings include the confirmation of several hypotheses, such as the positive impact of internet trust, benefits, privacy concerns on perceived risks, and the influence of past experiences on perceived risks. A significant discovery is the unexpected positive correlation between perceived risks and the willingness to disclose data, challenging traditional assumptions in the field.

Furthermore, the study provides valuable recommendations for businesses operating in the e-commerce space. Trust-building emerges as a crucial focal point, emphasizing transparent

communication, robust security measures, and ethical data handling practices. Tailoring benefits to user preferences is highlighted, acknowledging the diversity in user expectations and the significance of personalized experiences.

However, the paper acknowledges several limitations, including potential sampling bias, the cross-sectional nature of the study, and the reliance on self-reported data. These limitations prompt considerations for future research, suggesting opportunities for longitudinal studies, exploration of contextual influences, and the incorporation of multiple data collection methods to enhance the depth of understanding.

In essence, this research contributes to the evolving discourse on personal data sharing in e-commerce, providing insights that can inform industry practices, influence user-centric strategies, and inspire future investigations into the dynamic interplay of trust, risks, benefits, and user experiences in the digital marketplace.

SANTRAUKA

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VEIKSNIAI, ĮTAKOJANTI DALINTIS ASMENS DUOMENYS EL. PREKYBOSJE
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Vilnius, 2023

Dydis: 62 Puslapiai, 2 Maketai, 20 Lentelių.

Šiame magistro laipsnio darbe gilinamasi į sudėtingą dalijimosi asmeniniais duomenimis aplinką el. prekybos srityje. Tyrimu siekiama atskleisti pagrindinius veiksnius, turinčius įtakos asmenų sprendimams atskleisti asmeninę informaciją atliekant sandorius internetu. Išbandytos devynios hipotezės, nagrinėjant pasitikėjimo internetu vaidmenį, suvokiamą riziką, naudą, privatumo problemas, ankstesnę patirtį, personalizavimą, patogumą, išlaidų taupymą ir laiko taupymą formuojant vartotojų požiūrį į dalijimąsi duomenimis.

Tyrime naudojamas skerspjūvio planas, įtraukiant imties populiaciją, siekiant surinkti įžvalgų apie pirmiau minėtų veiksnių ryšius. Įsidėmėtinos išvados apima keletą hipotezių, tokių kaip teigiamas interneto pasitikėjimo poveikis, nauda, susirūpinimas dėl privatumo suvokiamai rizikai ir praeities patirties įtaka suvokiamai rizikai, patvirtinimas. Reikšmingas atradimas yra netikėta teigiama koreliacija tarp suvoktos rizikos ir noro atskleisti duomenis, prieštaraujanti tradicinėms šios srities prielaidoms.

Be to, tyrime pateikiamos vertingos rekomendacijos elektroninės prekybos erdvėje veikiančioms įmonėms. Pasitikėjimo stiprinimas tampa itin svarbiu centru, pabrėžiant skaidrų bendravimą, patikimas saugumo priemones ir etišką duomenų tvarkymo praktiką. Pabrėžiama privalumų

pritaikymas prie vartotojo pageidavimų, pripažįstant vartotojų lūkesčių įvairovę ir suasmenintos patirties svarbą.

Tačiau darbe pripažįstami keli apribojimai, įskaitant galimą atrankos šališkumą, tyrimo skerspjūvio pobūdį ir pasitikėjimą savarankiškai pateiktais duomenimis. Šie apribojimai skatina svarstyti būsimus tyrimus, siūlančius išilginių tyrimų galimybes, kontekstinio poveikio tyrimą ir kelių duomenų rinkimo metodų įtraukimą, siekiant pagerinti supratimo gylį.

Iš esmės šis tyrimas prisideda prie besikeičiančio diskurso apie dalijimąsi asmens duomenimis elektroninėje prekyboje, suteikdamas įžvalgų, kurios gali informuoti pramonės praktiką, daryti įtaką į vartotoją orientuotoms strategijoms ir įkvėpti būsimiems dinamiškos pasitikėjimo, rizikos, naudos ir vartotojų sąveikos tyrimams. patirtį skaitmeninėje rinkoje.

APPENDIXES

Questionnaire

Student from Vilnius University currently is performing a study, which is aimed at finding out factors influencing personal data sharing in ecommerce. Please answer the questions by ticking the correct options. The information provided by you will be anonymous, only generalized data will be used.

This form usually takes up to 7-8 minutes.

1. Would you feel confident answering questions of the survey in English?

Yes

No

First of all, we want to understand how you trust ecommerce websites. Please evaluate the following statements from 1 to 5 where 1 is ''Totally disagree'' and 5 is ''Totally agree''

	Totally Disagree	Disagree	Neither agree or disagree	Agree	Totally Agree
I trust that the website is trustworthy and honest					
I trust that the website wants to keep promises and obligations					
I trust that the infrastructure of the website is dependable					

I trust that the website keeps my best interests in mind					
I trust that the website would not behave opportunistically (e.g. gaining money illegally)					
I trust that the website's performance fulfills my expectations					
I Can shop in privacy of home					
I do not have to leave home					
I can shop whenever I want					
I can save the effort of visiting stores					

We want to know what you think about accessing your personal data. Let us know how important are the following statements by responding to them from 1 to 5, where 1 is ''Totally Disagree'' and 5 is ''Totally Agree''

	Totally Disagree	Disagree	Neither agree or disagree	Agree	Totally Agree

I think in general, it would be risky to give personal information to websites					
I think there would be high potential for privacy loss associated with giving personal information to websites					
I think personal information could be inappropriately used by websites					
I think providing websites with my personal information would involve many unexpected problems					
I am concerned that these websites ask me for this too much personal information					
I am concerned that these websites are collecting too much personal information about me					
I am concerned that the websites are collecting too much personal information about me					

I am concerned that unauthorized people may access my personal information					
I am concerned that these websites may keep my personal information in a non accurate manner					
I am concerned about submitting information to websites					

What is the possibility, that in the future you would use ecommerce websites.

Let us know something about you. Please evaluate the following statements from 1 to 5 where 1 is Totally Disagree" and 5 is "Totally Agree".

	Totally Disagree	Disagree	Neither agree or disagree	Agree	Totally Agree
I am willing to disclose my name					
I am willing to disclose my home e-mail address					
I am willing to disclose my home address					
I am willing to disclose my home phone number					

I am willing to disclose my work e-mail address					
I am willing to disclose my work address					
I am willing to disclose my work phone number					
I am willing to disclose my credit card details					
I am willing to disclose my date of birth					
I am willing to disclose my age					
I am willing to disclose my weight					
I am willing to disclose my medical history					
I am willing to disclose my media habits					
I am willing to disclose financial					

information (e.g. income, credit history)					
I am willing to disclose my lifestyle data (e.g. number of pets, house owner or rental)					

Please let us know how much do you agree with below statements related with E-Commerce. Let us know how important are the following statements from 1 to 5, where 1 is ''Totally Disagree'' and 5 is ''Totally Agree'.

	Totally Disagree	Disagree	Neither agree or disagree	Agree	Totally Agree
I think by revealing my personal information to this web shop will help me obtain information/products/ services I want					
I think by revealing my personal information I can get exactly what I want from this web shop					
I think by revealing my personal information disclosure, I will benefit from a better,					

customized service and/or better information and products					
I think by revealing my personal information I will get better price or a discount for a future purchase					
My pre-purchase experience of internet shopping website (e.g. consumer education, product search, quality of information about products, product comparison) was satisfactory					
My purchase experience of internet shopping website (e.g. ordering payment procedure) was satisfactory					
My post-purchase experience of internet shopping website (e.g. customer support and after sales support, handling of returns/refunds, delivery care)					

I think e-commerce website understood my needs					
I think e-commerce website knew what I wanted					
I think e-commerce website took my needs as it's own preferences					
I think online shopping can save money					
I think I can compare price easily via internet					
I think I can spend less on the internet					
I think online shopping saves time					
I think online shopping offers possibility of shopping 24/7					
I think online shopping is the smart way to spend time					

Finally, please provide some basic demographic data

1. **Gender:**
   - Male
   - Female
   - Other
   - Prefer not to say

2. **Age**
   - **Only numbers**

3. **Level of education**
- No formal education
- High school
- Collage
- Vocational training
- Bachelor
- Master
- PHD/Doctorate
- Other

4. **Marital status:**
   - Single;
   - In a relationship
   - Married
   - Separated
   - Divorced

5. **Your employment status:**
   - Student
   - Employed
   - Unemployed
   - Retired

6. **Your income level**
- Less than 500 GEL
- 501-1000 GEL
- 1001-2000 GEL
- 2001-3000 GEL
- More than 3001 GEL

Appendix 2. Reliability of scales

Internet Trust

Reliability Statistics

Cronbach's Alpha	N of Items
.960	8

Perceived Risk

Reliability Statistics

Cronbach's Alpha	N of Items
.832	4

Benefits

Reliability Statistics

Cronbach's Alpha	N of Items
.859	4

Privacy Concern

Reliability Statistics

Cronbach's Alpha	N of Items
.928	5

Past Experiences

Reliability Statistics

Cronbach's Alpha	N of Items
.913	3

Personalization

Reliability Statistics

Cronbach's Alpha	N of Items
.916	3

Convenience

Reliability Statistics

Cronbach's Alpha	N of Items
.901	4

Cost Savings

Reliability Statistics

Cronbach's Alpha	N of Items
.887	3

Time Savings

Reliability Statistics

Cronbach's Alpha	N of Items
.882	3

Willingness to disclose data

Reliability Statistics

Cronbach's Alpha	N of Items
.904	15

Appendix 3. Multiple regression scales

H1,H2,H3

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.669^a	.456	.453	.93087

a. Predictors: (Constant), BenefitsMean, PerceivedRiskMean, InternetTrustMean

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.026	3	137.508	132.308	<.001^b
	Residual	735.132	381	1.917		
	Total	745.473	384			

a. Dependent Variable: DisclosedataMean

b. Predictors: (Constant), BenefitsMean, PerceivedRiskMean, InternetTrustMean

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	4.262	.142		7.080	<.001
	InternetTrustMean	.325	.025	.341	3.779	<.001
	PerceivedRiskMean	.204	.028	.173	1.946	<.001
	BenefitsMean	.310	.028	.317	3.101	<.001

a. Dependent Variable: DisclosedataMean

H4,H5

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.759^a	.610	.609	1.02099

a. Predictors: (Constant), PastExperiencesMean, PrivacyConcernMean

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	815.159	2	407.579	406.047	<.001^b
	Residual	398.207	382	1.042		
	Total	1213.366	384			

a. Dependent Variable: PerceivedRiskMean

b. Predictors: (Constant), PastExperiencesMean, PrivacyConcernMean

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.114	.107		.707	.481
	PrivacyConcernMean	.443	.043	.412	9.215	<.001
	PastExperiencesMean	.537	.063	.499	11.169	<.001

a. Dependent Variable: PerceivedRiskMean

H6,H7,H8,H9

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.665[a]	.506	.504	1.01349

a. Predictors: (Constant), TimeSavingsMean, PersonalizationMean, ConvenienceMean, CostSavingsMean

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	437.556	4	171.779	152.263	<.001[b]
	Residual	242.320	380	1.027		
	Total	679.877	384			

a. Dependent Variable: BenefitsMean

b. Predictors: (Constant), TimeSavingsMean, PersonalizationMean, ConvenienceMean, CostSavingsMean

Coefficients[a]

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	.752	.296		3.599	<.001
	PersonalizationMean	.447	.041	.031	.608	<.001
	ConvenienceMean	.335	.069	.082	1.069	<.001
	CostSavingsMean	-.072	.077	-.073	-.943	.346
	TimeSavingsMean	.289	.047	.098	1.901	<.001

a. Dependent Variable: BenefitsMean

Appendix 4. Frequencies

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	186	48.3	48.3	48.3
	Male	199	51.7	51.7	100.0
	Total	385	100.0	100.0	

Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18	1	.3	.3	.3
	19	11	2.9	2.9	3.1
	20	12	3.1	3.1	6.2
	21	11	2.9	2.9	9.1
	22	12	3.1	3.1	12.2
	23	39	10.1	10.1	22.3
	24	65	16.9	16.9	39.2
	25	53	13.8	13.8	53.0
	28	23	6.0	6.0	59.0
	29	15	3.9	3.9	62.9
	30	54	14.0	14.0	76.9
	31	1	.3	.3	77.1
	33	3	.8	.8	77.9
	34	2	.5	.5	78.4
	35	12	3.1	3.1	81.6
	38	12	3.1	3.1	84.7
	40	13	3.4	3.4	88.1
	43	3	.8	.8	88.8
	44	2	.5	.5	89.4
	45	41	10.6	10.6	100.0
	Total	385	100.0	100.0	

Salary

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1001-1500	80	20.8	20.8	20.8
	1501-2000	91	23.6	23.6	44.4
	2001-3000	112	29.1	29.1	73.5
	Less than 1000$	89	23.1	23.1	96.6
	More than 3001$	13	3.4	3.4	100.0
	Total	385	100.0	100.0	

Education

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bachelor degree	233	60.5	60.5	60.5
	College	12	3.1	3.1	63.6
	High school	23	6.0	6.0	69.6
	Master degree	117	30.4	30.4	100.0
	Total	385	100.0	100.0	

Employmentstatus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Employed	323	83.9	83.9	83.9
	Student	36	9.4	9.4	93.2
	Unemployed	26	6.8	6.8	100.0
	Total	385	100.0	100.0	

Maritalstatus

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Divorced	26	6.8	6.8	6.8
	In a relationship	81	21.0	21.0	27.8
	Married	50	13.0	13.0	40.8
	Single	228	59.2	59.2	100.0
	Total	385	100.0	100.0	