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THE IMPACT OF SELECTED PERSONALITY TRAITS ON ENGAGEMENT IN SOCIAL MEDIA AND ON WILLINGNESS TO DISCLOSE PERSONAL DATA ONLINE

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INTRODUCTION

In a world where digitalism is becoming an inseparable part of business and the use of social network platforms is a daily occurrence, personal data plays a fundamental role. As the name suggests, personal data relates to any piece of information that could be used to identify an individual. Examples of the most trivial personal data are name, surname, home and email address, identification card number, location data and beyond. This information is valuable to any marketer that aims to better understand what products and services their customers are interested in. Moreover, it enables them to deliver more targeted value propositions (Urbonavičius et al., 2021), all of which are needed to meet and exceed customer expectations or simply sell more. Therefore, in response to the ever increasing e-commerce presence and data driven online marketing, factors influencing willingness to disclose personal data have been widely examined in the scientific literature in the last few years (Robinson, 2018; Fernandes and Pereira, 2021).

With the growing popularity of social networks, people tend to share information about themselves and their hobbies freely (Mazurek and Małagocka, 2019). Instagram, the world's leading photo and video sharing social network, is among the most common platforms for disclosing personal data online. In the app, individuals upload photos, images, express their opinions and attitudes in order to present themselves as well as manage others' perceptions of them (Rui and Stefanone, 2013). Since users are not forced to reveal their data, but most of the time choose to do so of their own free will, the personality of the user is one of the key factors influencing customer engagement (Brodie et al., 2011). Consequently, personal characteristics and traits, which have an impact on the level of engagement in social sites, have been extensively researched. Propensity to trust in this case is considered as a personality trait, because of strong influence of trust and distrust factors on disclosures in social networks (Fogel and Nehmad, 2009) and online shopping (Urbonavičius et al., 2021). Also, Moon et al., (2016) and Dumas et al., (2017) in their research confirmed that people with higher levels of narcissism tend to be more active online. However, existing literature lacks proof that narcissism impacts willingness to engage and disclose personal data in social media, Instagram in particular.

Compared to social media, the situation in e-commerce is rather different in terms of willingness to disclose personal data. Although people give their details away quite easily on social networking sites, when it comes to online shopping, people tend to do that more cautiously (Urbonavičius et al., 2021). One of the main reasons for this is that with online purchases, consumers have to provide sensitive details such as credit card number and home address to make a transaction (Robinson, 2017). Earlier studies have identified trust as a key driver of e-commerce

and an essential asset for companies (Gefen, 2000; Mazurek and Małagocka, 2019). Moreover, there is a significant number of studies on how personality traits impact intention to disclose data online (Robinson, 2018; Liu, Ang and Lwin, 2013; Bansal, Zahedi and Gefen, 2016). The most prevalent publications are based on the Big Five model that includes traits such as extraversion, agreeableness, openness, conscientiousness, and neuroticism followed by The Dark Triad model that refers to narcissism, psychopathy and machiavellianism. Alongside the aforementioned trust and narcissism, this study also takes neuroticism into account, which in particular was found to have a significant impact on correlation with online disclosure of personal data (Robinson, 2018; Loiacono, 2015). However, the existing literature lacks a more concentrated analysis on whether neuroticism has an impact on engagement in social media as well as personal data disclosures in the context of shopping online. Furthermore, Zimaitis, Urbonavicius and Kaduskeviciute (2021) have found that involvement in social networks influences not only disclosure there, but also in a slightly different environment - when shopping online. Yet, existing studies lack sufficient evidence on the link between Instagram and e-commerce in terms of personal data disclosure. Thus, there is a large body of research on the impact of personality traits on an individual's participation in social media and, separately, on their propensity to disclose information online. However, the aforementioned aspects constitute a relevant research gap, and this paper addresses the problem - how personality traits influence engagement and self-disclosure on social media as well as the intention to disclose personal data when shopping online specifically. **Therefore, the aim of this study is to evaluate the impact of personality traits – propensity to trust, neuroticism and narcissism - on engagement in a social network and on the willingness to disclose personal data when shopping online.** Accordingly, the objectives will be achieved through empirical research. The objectives of this paper are as follows:

1. To analyze the importance of the disclosure of personal data online and the theories underpinning such research.
2. After examining the concept of social media engagement, identify its relevance in the context of personal data disclosure.
3. To analyze selected personality traits - propensity to trust, narcissism and neuroticism - and determine their impact on engagement and personal data disclosure online.
4. When developing a methodology, to carry out a survey and collect data.
5. To analyze the empirical data and identify the impact of personality traits on engagement and data disclosure online.
6. After conducting a statistical analysis of the data, draw conclusions and make recommendations.

The paper consists of three main sections. First, theoretical analysis of self-disclosure online, engagement in social media as well as selected personality traits and their influence on willingness to disclose personal data online. Second, research methodology which consists of research aim, model, hypothesis as well as methods and procedures for data collection. Third, data analysis and results of the research, including hypotheses testing and findings. Main parts of the study are followed by conclusions and recommendations. Regarding methods applied, to explore the relationship between data disclosures in social media and online shopping, this paper applies the Social Exchange Theory (SET). This theoretical framework helps to effectively and efficiently analyze reciprocal exchange, which in this study is related with engagement in Instagram as well as negotiated exchange linked to shopping online. Another method used is the analysis of scientific literature written on similar topics. Regarding methodology, a survey was used to gather data and the questionnaire was shared in social networks. Lastly, analyses of the collected data were performed using Statistical Package for the Social Sciences.

1. THEORETICAL ANALYSIS OF PERSONALITY TRAITS AND ENGAGEMENT AND THEIR IMPACT ON WILLINGNESS TO DISCLOSE PERSONAL DATA ONLINE

1.1. Theoretical aspects of data disclosure, engagement and shopping online
1.1.1. Theoretical framework of personal data disclosure online

Privacy disclosures are inextricably linked to the factors that trigger them, which often involve certain desirable benefits as well as associated risks. A large amount of academic literature relies on Privacy Calculus Model (PCM) as the theoretical framework for willingness to disclose personal data online (Li, Sarathy and Xu, 2010; Cheng, Hou and Mou, 2021; Jabbar et al., 2023). According to Robinson (2017), PCM seeks to evaluate the risks and benefits of a data disclosure for users and how they act accordingly. As the model suggests, people may agree to disclose sensitive information about themselves consciously for the purpose of obtaining a particular outcome. On the other hand, they may deliberately refrain from doing so because of well-founded fears. In other words, disclosure behavior depends on whether an individual perceives more potential benefits over privacy risks arriving from the disclosure (Lee and Yuan, 2020). The concept of privacy calculus is widely used as a theoretical framework in research concerning digital marketing, especially while examining consumers' willingness to disclose personal data in e-commerce (Zhu et al., 2017; Gouthier et al., 2022). As this study examines the same domain of online shopping, the PCM model seems appropriate for the evaluation of perceived benefits and risks in sharing personal information in e-commerce.

Benefits arriving from personal data disclosure while shopping online, which might override the negative side of perceived risks, include product or service discounts, vouchers, free gifts, trial samples and beyond. In addition to the financial benefits, users are also willing to disclose their data for convenience, which is strongly linked to personalization. Personalized benefits can be described as the advantages that individuals receive from content that is tailored specifically to them based on their browsing behaviors, personal interests, preferences (Tang and Ning, 2022). These benefits might as well result in saved time and efforts, makes it easier to navigate and generally upgrades customer experience. What is more, prior research suggests that personalization positively impacts the cost–benefit evaluation (Gouthier et al., 2022). Concerns and perceived risks regarding data disclosure online involve many forms, examples could be identity theft, mail phishing, public exposure (Robinson, 2015). Taking a deeper look into what is specifically concerned with online shopping, legitimate concerns result from risks related to e-

commerce transactions (Robinson, 2017). This is reasonable, because in order to complete it, the buyer has to enter very sensitive information such as bank card details and home address.

Even though PCM is widespread and useful when describing self-disclosure patterns in various online contexts, many researchers agree that the general cost-benefit approach which evaluates the risks of disclosure against the benefits obtained is overly rational in this model (Fernandes and Pereira, 2021; Kehr et al., 2015). PCM is less concerned with the individuals' level of trust and distrust, because they are more often explained through the prism of irrationality (Urbonavicius et. al, 2021). Moreover, although this model is widely used as a background in understanding disclosure in social networks, it has been shown to have some limitations in this context due to a lack of attention to individual differences and personality, which are proven to have an impact on data disclosure (Plangger and Montecchi, 2020; Sun, Wang and Shen, 2021; Bansal, Zahedi and Gefen, 2016). Since this paper aims to investigate how personality traits and engagement in social media affect willingness to disclose personal data, impulsive behavior is a relevant subject for analysis. Therefore, even though the PCM model is useful for evaluation of perceived benefits and risks of data disclosure, this model alone does not fully cover the subject of the study. It does not specifically address or focus on social network engagement and online shopping (Zimaitis et al., 2022). Taking all into account, in further analyses of consumer attitudes towards the disclosure of personal information online, another theoretical framework will be adopted - social exchange theory.

Even though the social exchange theory is used significantly less than PC, researchers who have previously analysed online disclosures of personal data in relation to e-commerce and social media based on this theory have confirmed its applicability (Moayery and Urbonavicius, 2021; Urbonavicius et al., 2021; Zimaitis et al., 2022). This theory is intended to give an insight into the social behaviour of people in economic activities (Lai et al., 2014) and it is overall a valuable concept for studying social aspects (Urbonavicius et al., 2021). Previous studies have used SET model to examine the intention to disclose personal data online in various contexts such as trust and conspiracy beliefs (Zimaitis et al., 2021), registration to online store (Zimaitis, Urbonavicius and Kaduskeviciute, 2021), acceptance of advertising (Schumann, Wangenheim and Groene, 2014) and online purchasing (Urbonavicius et al., 2021). Researchers have validated social exchange theory as an effective theoretical framework for studying individuals' willingness to share personal information online (Moayery and Urbonavicius, 2021; Zimaitis, Urbonavicius and Kaduskeviciute, 2021). It is proven that trust is a critical factor in both reciprocal and negotiated exchanges, especially in the context of data disclosure (Zimaitis et al., 2021). On the other hand, Molm, Peterson and Takahashi (1999) indicated some key differences: "These two forms of exchange differ in fundamental ways that affect how actors use power and the kinds of risk and

uncertainty they face". Nevertheless, "In both forms of exchange, the worst outcome is to receive no benefit at all: in negotiated exchange, to make no agreement, and in reciprocal exchange, to give unilaterally with no return" (Molm, Peterson and Takahashi, 1999). In this paper, the disclosure of personal data online is examined by linking engagement on Instagram to reciprocal exchanges and online shopping to negotiated exchanges.

From the perspective of reciprocal exchanges, participants provide benefits, in this context data disclosure, to the other party by unilateral acts of donation, without being aware of the reciprocity of the other participant. In other words, partners act individually and benefit the other partner without knowing how the other partner will reciprocate, or even if they will reciprocate at all (Molm, Peterson and Takahashi, 1999). It is therefore difficult to understand the exact timing of when these non-negotiated exchanges begin and end, as a beneficial action by one participant to the other may either end there or may lead to the other participant repaying in some way, which may develop into a series of advantageous actions towards each other. Even more, only if participants are ready to tolerate some temporary risks and uncertainties can some type of reciprocal exchange evolve (Molm, Peterson and Takahashi, 1999), that is why propensity to trust is highly involved. Social exchange theory ensures that by positioning trust as of greatest importance in reciprocal interactions (Molm, Takahashi and Peterson, 2000). One of the most common examples of such exchanges nowadays is social networks. Social media users upload photos, videos, write texts and respond to other users' content with likes, comments and shares expecting to receive perceived benefits such as social recognition, support, relationship building, self-expression and beyond. These social exchanges are usually between application users, and they run independently with no formal obligations and without being sure whether others will respond.

In contrast to reciprocal exchanges, negotiated exchanges are characterized by clarity and consensus, with details defined and agreed in advance. Consumers have a clear explanation of the reasons for the mandatory disclosure and how the information will be used. They are also aware of and do so for the purpose of what they will get as a result, the details of which are foreseen and accepted. Additionally, participants know the costs, timings and other conditions of the exchange beforehand (Urbonavicius et al., 2021). However, Molm, Peterson and Takahashi (1999) have very well defined a fundamental trait: "Neither actor can profit without an agreement that benefits both (however unequally)". This research mainly focuses on negotiated exchange linked to e-commerce. Disclosure of personal information in online shopping is part of this exchange, as certain information is given in exchange for the opportunity to transact and purchase a product or service. Additionally, these exchanges can happen between platform users and the site itself due to the marketing related reasons. Individuals provide personal data as a benefit for marketers and

in return expect to get better recommendations and personalized experience (Wieringa et al., 2021; Plangger and Montecchi, 2020; Li, Cheng and Teng, 2020). Negotiated exchange is legally regulated and controlled, which greatly contributes to mutual transparency. The perception that formal legal systems can be trusted is a crucial factor in the decision to disclose personal data in e-commerce. Zimaitis et al., (2022) confirmed that positive attitudes towards the effectiveness of legal regulations contribute to the willingness to reveal personal data when purchasing a product or service online. For instance, if individuals feel out of control of their data after a transaction has been made and do not know to what extent and for what purposes it may be used, this may be partly compensated by the legal framework's effectiveness (Urbonavičius et a., 2021). Taking all these arguments into account, the abovementioned features followed by the results from other authors indicate that social exchange theory is appropriate for the study of online disclosure of personal data in the context of this paper and will therefore be used as the theoretical basis.

1.1.2. E-commerce and data disclosure when shopping online

The digitalization of businesses has created the opportunity as well as demand to sell and buy products and services online. Internet based marketplaces have expanded the boundaries of possibilities for both customers and companies, with numerous advantages in combination with some disadvantages. "E-commerce is defined as the use of the Internet to facilitate, execute, and process business transactions. Business transactions involve a buyer and seller and the exchange of goods or services for money" (DeLone and McLean, 2004).

When it comes to business and marketing, the ever-increasing demand for online shops is so strong that it has become somewhat rare for a company not to have an e-commerce site. The business benefits of selling goods and services online include increased sales, reduced running and sustaining costs, enhanced customer loyalty and retention, higher revenues and beyond (Jain, Malviya and Arya, 2021). These and other advantages encourage companies to create an online marketplace. However, in order to succeed in e-commerce, it is necessary to obtain people's personal data, because online stores rely heavily on the use of customer information (Wedel and Kannan, 2016). Companies collect data about people ranging from name to product preferences when a person visits, browses, or registers on their website. Once processed and analyzed, data can serve as strategic capital, enabling companies to obtain the best market information or improve their current performance (Spiekermann et al., 2015). Moreover, according to Zimaitis, Urbonavicius and Kaduskeviciute (2021), "The registration provides additional opportunities for e-stores to perform tracking of buyer behaviours and for the personalisation of offerings". However, scholars argue that individuals are not necessarily inclined to disclose their personal data.

Naturally, marketing based on personal data is advantageous not only for businesses, but for their customers too. Taking a people's perspective, they see both pros and cons in information disclosure in e-stores. Concerning benefits, e-commerce helps consumers save time and resources, makes it easier and more convenient to compare prices and shop cheaper. Moreover, it allows consumers to choose from a wider range of products or services, to check their ratings and reviews. Most options to disclose data in e-stores are voluntary and depend on customers' willingness and in this context people tend to disclose data about themselves for extra benefits and personalization (Robinson, 2017; Wieringa et al., 2021). What is related to perceived risks of revealing data in e-stores, they can take many forms and depend on the type of action. In general, these hazards are related to product or service quality and delivery, and what concerns this research the most is that they also include financial and information privacy aspects (Panwar, 2018). Financial and data privacy risks include sensitive information such as credit card number and home address (Robinson, 2017) which are specifically related to online purchasing activity (focus of the research) as they are required in order to make a transaction and purchase a product or service online.

There are several factors proven to have an influence on willingness to disclose data in e-commerce. For example, Robinson (2017) revealed that the more experience people have in online stores, the more they are willing to disclose personal data in it. Moreover, consumer behaviour in online shopping differs considerably depending on the region. There is a significant amount of research done comparing different nationalities and analyzing how people's data disclosure in e-commerce differs (Dinev et al., 2017; Robinson, 2017). This paper examines the traits of certain personalities and engagement, thus focusing on what might be closer to that, Gefen, 2000; Mazurek and Małagocka (2019) acknowledged that trust plays a crucial role in e-commerce and is strongly linked to people's willingness to disclose data online. Furthermore, there is a large body of research on how personality traits affect the intention to self-disclose online, but there is a lack of links between how those traits affect disclosure when shopping online. This study therefore attempts to bridge this gap and examines the influence of certain traits as well as engagement in Instagram on the disclosure of data while shopping online.

1.1.3. Importance of engagement in consumer behaviour

In order to make the further analysis of engagement in social media and its relation to disclosure in e-commerce comprehensive, the concept of engagement itself needs to be explained first. The phenomenon of engagement is considered to be a useful concept that can help to predict the underlying motives for consumer behavior and the resulting outcomes (Hollebeek, Glynn and Brodie, 2014). The use of the term "engagement" has been applied in the academic literature to a

wide range of fields such as business, social sciences, management (Brodie et al., 2011) and especially marketing (Hollebeek, 2011; Hollebeek and Chen, 2014). Due to the different areas concerned, the types of engagement used, and their definitions also vary. For instance, in the scientific literature on psychology, expressions such as "social engagement" and "addictive engagement" may appear more often, while in the business-related topics "stakeholder engagement" and "supplier engagement" are being researched wider. As this paper addresses topics such as engagement in social media and e-commerce, it is mostly related to the field of marketing, where the following terms of engagement prevail: "customer engagement", "consumer engagement" and "customer brand engagement".

It is important to highlight the main terminologies as well as dimensions associated with engagement that are used in this study. Consumer engagement is perceived as a state of mind (Abdul-Ghani, Hyde and Marshall, 2012) and is expected to generate "...consumer loyalty, satisfaction, empowerment, connection, commitment and trust" (Brodie et al., 2013) while customer engagement is associated with "...customer and/or brand experience, emotion, creativity, collaboration, learning, and/or (brand) community interactions." (Brodie et al., 2011). Linda Hollebeek (2011) describes 'customer brand engagement' (CBE) as: "The level of a customer's cognitive, emotional and behavioral investment in specific brand interactions.". Many researchers agree that customer engagement is a multi-dimensional concept consisting of those three core facets (Brodie et al., 2011; Marbach, Lages and Nunan 2015). Furthermore, Hollebeek, Glynn and Brodie (2014) have identified cognitive processing, affection and activation as three CBE dimensions that are consistent with the general cognitive, emotional and behavioral nature of engagement. Cognitive processing is described as "a consumer's level of brand-related thought processing and elaboration in a particular consumer/brand interaction"; affection defined as "a consumer's degree of positive brand-related affect in a particular consumer/brand interaction"; while activation corresponds to "a consumer's level of energy, effort and time spent on a brand in a particular consumer/brand interaction" (Hollebeek, Glynn and Brodie, 2014). Additionally, in the same study they have established and validated a three-factor CBE scale which is used in this paper. However, opinions diverge on whether the concept is really multidimensional or rather concentrated on either one of these perspectives. For instance, Van Doorn et al. (2010) apply a uni-dimensional approach oriented towards engagement behavior and therefore concentrates on specific customer engagement behaviors. Four types of customer engagement behavior were identified by Jaakkola and Alexander (2014): augmenting, codeveloping, influencing and mobilizing while forms of behavior are word-of-mouth, customer helping company and customer helping customers (Roy et al., 2018). This points to the fact that the expression of cognitive,

emotional and behavioral dimensions varies depending on the participants and the context of the engagement itself (Brodie et al., 2011; Hollebeek, Glynn and Brodie, 2014).

Similarly, when analyzing engagement, other cognate elements such as "involvement" and "participation" need to be distinguished. Consumer involvement is more passive than engagement which includes an intention to act and the need for experiential value fulfilment (Mollen and Wilson, 2010). "The main difference between customer engagement and these two concepts is that involvement and participation do not reflect interactive, co-creative experiences." (Marbach, Lages and Nunan, 2015). Moreover, Vivek, Beatty and Morgan (2012) argues that participation and involvement are potential causes of customer engagement, while trust, commitment and loyalty might be the outcomes (Vivek, Beatty and Morgan 2012; Brodie et al., 2013). This research is most relevant to the specific loyalty direction - brand loyalty, as it includes a positive attitude of the consumer towards the brand as well as re-purchase intention (Islam, Rahman and Hollebeek 2018). Commitment can be defined in a bit of a similar way to the PC model as it assumes a customer's willingness to make sacrifices in order to attain some benefits, moreover, it is generally considered a loyalty factor (Khan et al., 2020).

1.1.4. Engagement and disclosure on social media

The emergence of the internet and technology, its bold growth and integration into people's daily lives, has created the opportunity and then the need to communicate and interact online. As a result, many social media platforms have emerged and are still growing in popularity, providing opportunities for communication and entertainment worldwide. According to Statista, as of early 2022, the most popular social networks worldwide were Facebook, YouTube, WhatsApp, Instagram and WeChat respectively. Users upload photos, videos, share their own and others' thoughts and react to others' uploads on these platforms to show their life, opinions and views. By expressing themselves through engagement on these network sites, individuals reveal their personal data, and according to Mazurek and Małagocka (2019), they do so very freely. Moreover, Menon (2022) in his research stated that "Most social media platforms are designed and developed in such a way to motivate their users to disclose information about themselves and other people around them".

The enormous prevalence of social networking platforms has created the key channel for brands and businesses to communicate with their customers. Collaborations between companies and famous athletes, actors, singers and other celebrities have been around for a long time, but in recent years the social media influencer trend has become very popular. Social media influencers are users who create content on these platforms and reach large audiences, are usually highly

credible in their industry, and are supported and trusted by others because of their charming personalities (Arora et al., 2019). They collaborate with various brands and promote them on social networks, especially on Instagram, thus encouraging people to buy various products and services. Businesses benefit from people actively engaging and responding to their content on social media because it helps spread the word about the company and attract new customers (Dolan et al., 2016).

As Facebook has been one of the most popular social media platforms in the world for many years, numerous researchers have been investigating people's engagement (Hollebeek, Glynn and Brodie, 2014) and data disclosure (Oghazi et al., 2020) in it. On the other hand, Instagram, as an example of a social media platform, is less analyzed in the context of data disclosure. Instagram is a photo-sharing application where people upload photos and short videos either permanently or for a limited period of time. Moreover, it has features that have been trending in recent years such as "stories" and "reals", through which users express themselves and which can also include various effects, text, animation, music and beyond. Instagram's data policy states that it collects information from uploads, likes, comments, cookies, identifiers as well as made connections and transactions (Instagram.com 2018). Behaviour on Instagram is expressed and can be measured through the time spent in using the app, the frequency of posting hashtags and the amount of time spent editing Instagram photos (Sheldon and Bryant, 2016). Moreover, behaviour in Instagram includes uploading of one's own content and the responsiveness of others, updating profile pictures, and the frequency of photos shared could work as an additional measure.

The growing popularity of social networks and online services has led to an increasing recognition of the importance to consider factors for disclosing data online. Prior researches have confirmed that participation in social media encourages willingness to disclose information online (Zimaitis, Urbonavicius and Kaduskeviciute, 2021; Urbonavicius et al., 2021). However, there is a lack of research on Instagram's relationship with e-commerce on the issue of personal data disclosure. Therefore, this paper focuses on how data disclosure through engagement in Instagram is related with data disclosure in online shopping. Furthermore, comparing the alternative theories described in the beginning of the paper with the characteristics and examples of social exchange theory suggests that SET is one of the most appropriate theories for data disclosure in the context of engagement in social media and shopping online. As mentioned, both data disclosure in social media and in e-commerce are strongly related to an individual's propensity to trust, however there are other personality traits that may influence it. This thesis further explores selected personality traits and their impact on the engagement in Instagram and willingness to disclose data online. Their influence will be related to reciprocal and negotiated exchanges.

1.2. Selected factors that influence engagement in social media and data disclosures online
1.2.1. Personality traits and their importance

Individuals tend to have different personality types, thus the traits and attitudes of each person may differ and determine their decisions and actions. Combinations of personality traits are unique, contributing to individual differences, and can be reflected in the way people behave in different social circumstances, revealing a person's abilities, interests, beliefs or attitudes. "Thus, trait psychology rests on the idea that people differ from one another in terms of where they stand on a set of basic trait dimensions that persist over time and across situations." (Diener, Lucas and Cummings, 2019). There exist many personal characteristics, such as authoritarianism, self-esteem, need for achievement and optimism just to name a few. Differences in personal characteristics or traits and their influence on decision-making cover a wide range of areas, especially when it comes to socialization. Using and engaging with social networking apps and various online services is no exception.

Concerning social media and e-commerce, it is quite obvious that decisions to be more or less involved in the virtual world and whether or not to shop online also depend on personality. Therefore, like all the other factors involved in this sensitive and, in recent years, extremely popular topic - the willingness to disclose personal data online - the impact of personality traits is attracting more and more interest and demand for research. What is related to engagement, prior studies have identified personality traits as areas of research relevant to the study of engagement in online brand communities (Wirtz et al., 2013), online customer engagement (Marbach, Lages and Nunan, 2016), stakeholder engagement (Hollebeek et al., 2022) and engagement behaviours (Meng and Leung, 2021). When it comes to online disclosure, there is a large body of research on how different personality traits affect the intention to do so (Robinson, 2018; Bansal, Zahedi and Gefen, 2016).

Additionally, in the context of engagement in social networks and the propensity to disclose data online, age and gender also play a role. For instance, in the existing literature it is stated that age is positively linked to cyber fear, positively impacts the perception of regulation efficiency, and also has a direct negative impact on the willingness to disclose personal data (Zimaitis et al., 2020). Robinson (2016) has identified three age groups - children, adolescents and emerging adults - and their differences related to Internet use as well as disclosure of personal data "As each group interacts online, they use different disclosure practices and protection mechanisms to manage and distribute their personal information.". Concerning social media channels, the use of social networks is not only age-related (Dumas et al., 2017), but for some networks it also varies according to gender: "Social network services appeal to women more than men" (Sheldon and Bryant, 2016).

Since there are many personal characteristics and they can be highly interrelated, it is convenient to group them according to similar traits and stimuli. A significant number of psychology scientists suggest that personality could be broken into 5 main grouping variables. Consequently, personality traits in abovementioned contexts are most commonly based on the Big Five model of personality (Robinson, 2018). This model distinguishes individuals in five broad areas, all of which includes many other similar characteristics and together define an individual's personality: extraversion/introversion, conscientiousness, neuroticism, agreeableness and openness to experience. The Big 5 Model is widely used in psychology as according to many scientists and psychologists, it is highly replicable and can be further disaggregated to allow for a more detailed analysis (Digman, 1990). However, abovementioned traits are mostly used in research referring to individuals who have good interpersonal relationships, are high-functioning and well-adapted (Peng, Hsiung and Chen, 2012). Unfortunately, there are other features that are neither positive nor standard but are nevertheless significant and should not be underestimated. Therefore, there is a need to include negative personality traits that are prone to toxic, maladjusted, anti-social or even harmful behaviour. Regarding that, the most popular and widely used personality model is The Dark Triad. This model refers to narcissism, psychopathy and machiavellianism and is examined in marketing related studies concerning engagement (Hollebeek et al., 2022) and behaviors in social networking sites (Fox and Rooney, 2015; Geary, March and Grieve, 2021). In addition, traits included in these two models are broad and have links with other characteristics. For example, Bansal, Zahedi and Gefen, (2016) use the Big Five model, but along with the other traits, they analyze emotional instability and intelligence instead of neuroticism and openness, as they have previously been shown to be correlated. This supports the argument that the Big Five and Dark Triad models are useful for a wide range of research that has its focus on personality traits.

Thus, while there are many personality traits, this article focuses on those that are reflected in the most widely accepted personality models. However, not all of these personality traits included in Big Five and Dark Triad models will be considered in the study, but only those that have previously been shown to be linked with at least one of the main areas of this paper. Research conducted by Robinson (2018) shows that neuroticism was found to be the only positive predictor towards online disclosure of personal data, while the other four were not supported. This trait will therefore be used to study engagement with social media and disclosure specifically in e-commerce. Moreover, it is suggested that the more narcissistic a person is, the greater engagement in various online activities they will have (Moon et al., 2016; Dumas et al., 2017), but there is a lack of validation on whether this trait has a direct impact on engagement specifically in social media (Instagram) and personal data disclosure there. As already addressed under the topic of data

disclosure in e-commerce, trust in this context plays a key role and therefore, in this paper, propensity to trust will be considered a personality trait. Some of these traits separately have been shown to be directly related to engagement in social media and some to self-disclosure, therefore, this research is focused on analyzing what has not been proved yet. This study tries to bridge a gap in the literature and therefore, excludes other personality traits due to the fact that, in terms of social media engagement and the propensity to disclose personal data online, they are either proven to have no link or there is clear evidence of a relationship. Therefore, this study examines the roles of propensity to trust, neuroticism and narcissism, their importance in social media engagement and in intentions to disclose data while shopping online.

1.2.2. The impact of propensity to trust on online engagement and disclosure

The relevance of trust in various scientific disciplines is well depicted by the abundance of research on the matter. "Many economists, psychologists, sociologists, and management theorists appear united on the importance of trust in the conduct of human affairs" (Hosmer, 1995). Trust and distrust are often linked to different levels of uncertainty and dependency (Rousseau et al., 1998) as well as legal regulations of privacy and control (Urbonavicius et al., 2021). These qualities are involved in many interactions and are important in any field, such as social, political, economical and technological. "General trust is a trait that positively impacts numerous human interactions, including activities online that require disclosure of personal data." (Zimaitis et al., 2022). This suggests that those people who have a higher level of trust in others tend to have a higher level of trust in online disclosure and, therefore, are more willing to share their personal data. Mayer, Davis and Schoorman (1995) suggests that "Propensity might be thought of as the general willingness to trust others". In general, since the propensity to trust is considered a personality trait, like most others, depends on many factors, both internal and external, and manifests itself at different levels in diverse contexts across people, however, within-person, it is considered as a stable and consistent trait (Frazier, Johnson and Fainshmidt, 2013).

As far as online disclosure is concerned, many researchers agree that trust is a very important factor and have demonstrated this in studies explaining both data disclosure in social networks and e-commerce (Urbonavicius et al., 2021). Regarding reciprocal exchange and social media, existing literature suggests that propensity to trust has an impact on disclosure of personal data as well as the level of engagement in online activities (Fogel and Nehmad, 2009). Individuals are likely to be sharing personal details about themselves more freely in social networks than in e-commerce, since the type of information shared in such networks might be seen as less confidential. For instance, there is no need to provide home address or credit card details. Instead, taking Instagram as an example, the majority of the information that is shared on that application

consists of photos, videos and short messages and most importantly, everything is done by a free will. What is more, these exchanges are not negotiated and there is no need to consider whether to trust legal mechanisms or not, because they are relatively absent from social media. Nevertheless, it does not mean individuals trust the app unconditionally and that the propensity to trust has no effect.

While e-commerce has all the previously mentioned advantages for both users and businesses, it is still a new distribution channel in developing and developed countries (Rodríguez-Ardura and Meseguer-Artola, 2010). Lack of trust and the resulting fears about online security are one of the main reasons why people tend to shop in physical stores rather than online (Robinson, 2018). People perceive fear and risk of disclosure in e-commerce due to cyber-fear, lack of trust in the legal framework or in a company they are purchasing from, and a tendency to trust in general. Concerning legal framework and protection mechanisms, in order to protect data, which is disclosed online, various national and international entities are implementing privacy regulations and policies. That is common in negotiated exchanges and online shopping is not an exception. Transactions in this context are established and controlled by legal systems and laws, carefully and according to defined rules. Regarding personal data disclosure while shopping online, numerous studies agree that trust in assurance structures is important, and the General Data Protection Regulation is among the most widely used examples for that. Urbonavicius et al. (2021) took GDPR as an example of an assurance scheme and discovered that there is a positive correlation between perceptions of regulatory effectiveness and the intention to disclose private data in purchasing online. Additionally, prior research proved that "strictness of external regulation positively impacts perceptions about regulation effectiveness" (Moayery and Urbonavicius, 2021). This implies that when transactions are strictly controlled by legal entities, individuals are more likely to trust them. Therefore, it may be concluded that if a person trusts the legal mechanisms that come with e-commerce, there will be a greater willingness to disclose data when shopping online.

One more factor where the propensity to trust attribute has a significant impact in negotiated exchanges, and especially in the context of e-commerce, is that the disclosure of data when shopping online is also influenced by trust in the company itself. Many organizations make it a regular practice to gather personal information of customers obtained during their visits to the websites and transfer it to affiliates or even sell it to third parties (Robinson, 2017). Customers lose control over their personal information the minute they share it in e-commerce and as a result, they become unable to choose how, where and to what extent the data about them is used. Consequently, in the absence of an assurance that the data will be kept confidential, disclosure is likely to be limited (Miltgen, 2009).

Another aspect that goes hand in hand with trusting a website, a company and the disclosure of personal data to them is experience. Satisfaction with past online purchases and transactions also contributes to the propensity to trust and influences future decisions in the respect of data disclosure online (Bansal, Zahedi and Gefen, 2016). Taking abovementioned considerations into account, researchers have proven that general trust, as a personality trait, has an impact on trust in online security, legal framework and online activities in general.

1.2.3. The impact of neuroticism on online engagement and disclosure

The level of neuroticism describes a person's susceptibility to a range of negative emotions. "Neuroticism is characterized by anxiety and sensitivity to threat, low levels of emotional stability, and high levels of anxiety" (Meng and Leung, 2021). This personality trait reflects a tendency to experience psychological distress, often accompanied by a tendency to worry intensely and excessively. People who have relatively high levels of neuroticism often experience fear, insecurity, sadness and sudden changes in mood and well-being (Loiacono, 2015).

Existing literature reveals that neuroticism has a significant influence on the intention to disclose personal data online. (Robinson, 2018) states that the higher the level of neuroticism, the more negatively a person feels about self-disclosure online. Loiacono, (2015) explains that one of many reasons for this relationship is that the more neurotic a person is, the more he or she weighs up the risks. The relation to negotiated exchanges can be seen in the context of uncertainty of control over information disclosed. As neuroticism is associated with sensitivity to threat, people with high rates of this trait might be more afraid to share information about themselves due to perceived hazards. In the context of shopping online, information that is mandatory for the completion of a transaction, such as home address or credit card details, is considered sensitive data over which consumers lose complete control immediately after the disclosure. When online shoppers with higher levels of neuroticism face perceived breaches of contract, they become more anxious and as a consequence, lose trust in the company, legal mechanisms and beyond (Pavlou and Gefen, 2005).

In terms of reciprocal exchange, existing studies consider that people with high levels of neuroticism may be more likely to seek social support and feel a sense of belonging. Attempts have been made to investigate whether neurotic people are more likely to engage and thus disclose their personal data on social media due to this trait, but the results are mostly insignificant (Meng and Leung, 2021). In fact, there are quite a lot of articles on examining behaviours of neurotic individuals in social networks. Surprisingly, Amichai-Hamburger and Vinitzky (2010) suggests that people with either high or low levels of neuroticism tend to share more information in social

networks than those with moderate levels, however, analyses were conducted on basic rather than personal information.

Even though the behaviours of neurotic people in social networks are examined widely, there is a lack of sufficiently strong and clear evidence that, in the context of data disclosure, there is a link between neuroticism and engagement on social media, Instagram in particular. Therefore, this study attempts to cover this gap by looking at the relationship between neuroticism and engagement on Instagram. In addition, although it is proven in previous researches that neuroticism has an impact on the willingness to disclose data online, a gap in literature exists on whether neurotic people are more likely to disclose their personal data when purchasing goods or services online and thus, this paper concentrates on that.

1.2.4. The impact of narcissism on online engagement and disclosure

The third and final personality trait whose influence on the willingness to disclose private data online is examined in this paper is narcissism. Jabeen, Gerritsen and Treur (2020) describe narcissism as a personality trait associated with a set of human behaviours that demonstrate self-superiority and self-exhibition. Because of the bad qualities of narcissism, people with high levels of this trait may be referred to by the currently trending term - "toxic" individuals. Although narcissism is often perceived as a negative trait in society, which is usually defined as a personality disorder related to fixation on the self (Meng and Leung, 2021), there are some positive sides to it. For instance, the ability to present oneself with dignity, higher self-esteem and self-sufficiency are attractive qualities in other people, which sometimes makes narcissism even desirable (Jin and Muqaddam, 2018).

A number of scholars believe that this trait cannot always be analyzed as a single unit as narcissism has many different components. Studies examining narcissism in the context of engagement in social networks mostly suggest that narcissism falls under two main clusters: grandiosity and vulnerability (Geary, March and Grieve, 2021). Grandiose narcissism refers to overconfidence and can be further divided into components such as exhibitionism, superiority and self-sufficiency, while vulnerable narcissism is associated with insecurity and defensiveness (Nardis and Panek, 2019).

The perfect medium for narcissistic behaviour to be expressed nowadays is social media, where individuals can choose how and to what extent they want to present themselves (Nardis and Panek, 2019). As a result, the influence of narcissism on behaviour has been analyzed quite extensively in the context of social networks. Individuals with a high level of narcissism enjoy seeking attention and revealing themselves on social networks (Dumas et al., 2017; Fox and Rooney, 2015). It is demonstrated that narcissistic individuals tend to be more engaged online

(Moon et al., 2016; Dumas et al., 2017). Social media users can get satisfaction from self-expression by uploading photos or videos as well as getting reactions from other users, presumably in the form of compliments, which can be expressed through likes, comments and reactions on the uploaded content. It has been shown that users with higher levels of narcissism tend to post more self-presented photos (Moon et al., 2016). Instagram in particular is the most popular app for posting selfies, therefore could be considered as an ideal environment for narcissistic individuals.

Concerning data disclosure in reciprocal exchanges, there have been attempts to investigate whether narcissism influences the choice of privacy settings in social media. It is based on the idea that narcissistic people may want their profile to be visible to multiple users for broader self-presentation, and the results show that narcissistic individuals tend to have less strict privacy settings (Utz and Krämer, 2009). Although there is a large body of research showing a direct link between narcissism and involvement in online activities, there is a lack of evidence showing a significant link between narcissism and engagement or self-disclosure in Instagram. Therefore, this study will try to fill this gap and find out whether individuals who are more narcissistic are more likely to engage and disclose their private information in Instagram.

Evidently, certain personality traits play an important role in decisions and actions in the use of social media and online services. Propensity to trust was found to be a significant predictor of both engagement in social media and willingness to disclose personal data in e-commerce, while neuroticism has an impact only directly with personal data sharing online. Narcissism is known to influence attention-seeking and self-presentation online. This paper seeks to contribute to this particular area and to fill gaps in the literature on these personality traits in the context of engagement in Instagram and personal data disclosure in online shopping.

2. RESEARCH METHODOLOGY FOR ANALYSING IMPACT OF PERSONALITY TRAITS AND ENGAGEMENT ON ONLINE DISCLOSURE

2.1. Research aim, model and hypothesis

The aim of the research is, on the basis of empirical analysis, to assess the impact of personality traits (propensity to trust, neuroticism and narcissism) on engagement in a social network and on the willingness to disclose personal data when shopping online. To achieve this goal, first of all a research model and corresponding hypothesis have to be developed. From the literature analysis it is known that there are two personality traits (neuroticism and narcissism) whose impact on the disclosure of personal data when shopping online is rather unclear. Although their influence on attachment to social networks and disclosures there is much clearer. Yet, attempts have been made to explain that the involvement in social networks influences the willingness to disclose data when shopping in an online shop. This has been studied through the prism of social exchange theory, which, according to the theoretical background of online personal data disclosure, has proven to be the most appropriate framework in the context of engagement in social media and shopping online. Taking this into account, a research model has been developed based on SET (Figure 1).

Figure 1

Research model
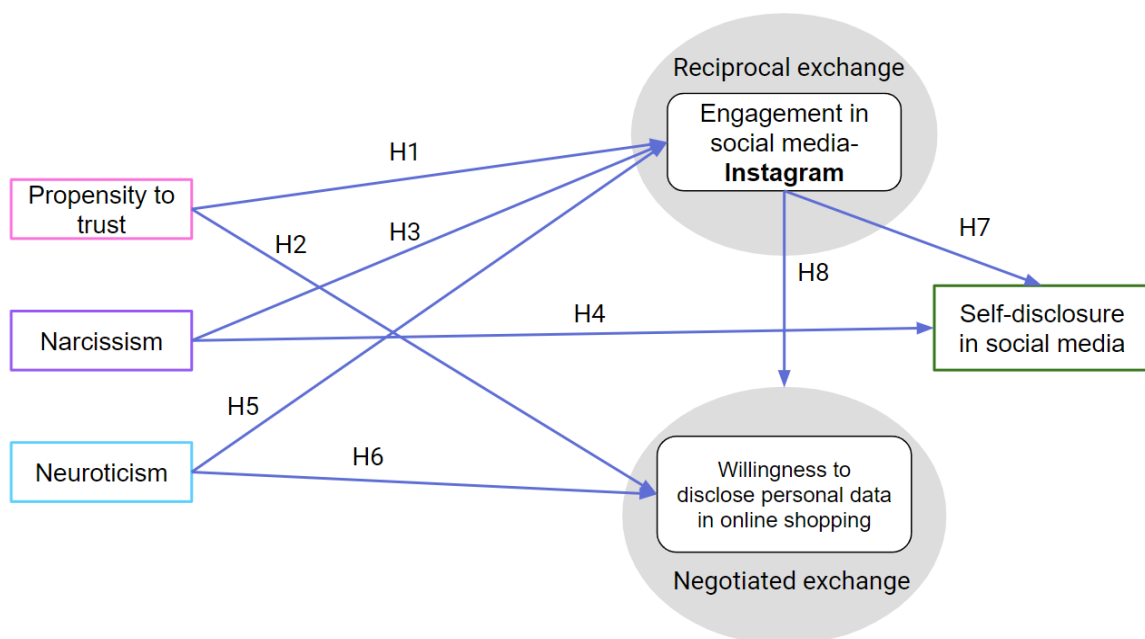
Source: prepared by the author based on the research

Trust plays a major role in this theory, which is why another personality trait - propensity to trust - is included in the model. SET helps to analyze relationships focusing on two different types of exchange, thus in this study, engagement in social media represents a reciprocal type of exchange, while negotiated exchange is examined through the angle of willingness to disclose personal data when shopping online. The independent variables in this model are selected personality traits, with social network engagement as a mediator, and the dependent variables are self-disclosure on social media and willingness to disclose in online shopping. This is consistent with the goal, which is modelled towards understanding how three personality traits influence social network engagement and willingness to disclose data in two contexts: social networking and online shopping.

When it comes to both types of exchange, reciprocal and negotiated, trust becomes a crucial antecedent. Whether it is a negotiated, fairly well-defined agreement or a reciprocal and completely vague, the participants are still facing some risks as well as uncertainties, and therefore the tendency to trust is very important. The existing studies suggest that personality trait propensity to trust has an impact on engagement and self-disclosure in online activities and specifically in social networks (Fogel and Nehmad, 2009). This can be explained in the sense that the greater a person's tendency to trust others, the more open and involved he or she will be in social networks, having less strict privacy settings and publicly available profiles in which they can express themselves freely. Therefore, it is assumed that this personality trait will have a direct positive relationship on engagement in social media:

H1: Propensity to trust positively influences engagement in social media

Furthermore, trust has been shown to play a very significant role in data disclosure in e-commerce. A lower level of propensity to trust causes the lack of trust in technologies, legal mechanisms or in the website itself, raises fears about data security, which has a significant impact on people's choice not to disclose data when shopping online (Robinson, 2018). Therefore, it is expected that people with higher levels of trust are less worried about data security and consequently are more inclined to disclose information in e-commerce:

H2: Propensity to trust positively influences willingness to disclose personal data in online shopping

Parallel to trust, narcissism can also influence involvement and disclosures online. Although they correspond to different motives - privacy protection versus impression management

in front of an audience - both traits have an impact on the choice of personal data privacy preferences. Utz and Krämer (2009) proved that narcissistic people are prone to less stringent privacy settings. Moreover, the more narcissistic a person is, the greater need for attention he or she seeks, and that is reflected in the desire to be more visible on social media (Dumas et al., 2017). This work uses Instagram as an example of a social media platform, which is known to be a particularly suitable environment for narcissistic individuals due to the popularity of selfies and other features of this channel. Taking abovementioned findings into consideration, this study proposes the following hypotheses:

H3: Narcissism positively influences engagement in social media

H4: Narcissism positively influences self-disclosure in social media

Opinions diverge in the existing literature on how neuroticism influences engagement in online activities, as the findings vary in different contexts. Previous research has found that individuals with higher levels of neuroticism have a greater tendency to engage in social media because of belongingness-related and self-presentational reasons (Hughes et al., 2012). However, Hughes et al. study was done with Facebook as an example of a social network, and when another paper examined whether neuroticism is a predictor of engagement in TikTok, the results were insignificant (Meng and Leung, 2021). Besides, Bansal, Zahedi and Gefen (2016) examined emotional instability, which is a trait that reflects neuroticism, and found an additional effect - emotional instability contributed to the development of concerns about privacy and information sharing online. As opposed to engagement, there is a consensus on the link between neuroticism and online information disclosure. Strong evidence exists proving that those who score highly on neuroticism feel more negative about self-disclosure online (Robinson, 2018). From the literature review and rationale above, the current paper considers that:

H5: Neuroticism negatively influences engagement in social media

H6: Neuroticism negatively influences intention to disclose personal data in online shopping

Individuals engage in social media in many different ways and levels, yet in all cases they share information about themselves while doing so (Mazurek and Małagocka, 2019). In fact, disclosure without engagement is hardly possible. In addition, social platforms are a tool to get people's data and are designed to stimulate users to disclose useful information (Menon, 2022). Therefore, this paper expects that higher engagement in social media, Instagram in particular, demands greater disclosure of personal data:

H7: Engagement in social media positively influences self-disclosure in social media

One of the main reasons why the SET model was chosen is to check whether one type of exchange impacts another. More precisely, to examine if higher engagement in social networks (reciprocal exchange) contributes to willingness to disclose personal data when purchasing online (negotiated exchange). Zimaitis, Urbonavicius and Kaduskeviciute (2021) showed that engagement in social networks has a positive impact on willingness to further disclose personal data online, therefore the last hypothesis in this study is as follows:

H8: Engagement in social media positively influences the willingness to disclose personal data when shopping online

2.2. Methods and procedures for data collection

Research design

The data was collected in Lithuania using an online survey created with Google Forms. The questionnaire was distributed via social media platforms (Facebook and Instagram) during the period of March 20, 2023 and April 20, 2023. The quantitative research method was chosen because it allows for the collection of a large amount of numerical data, which can then be used to make generalizations based on the large-scale samples. This method is evidently the most popular approach in the existing scientific literature on similar topics to the present work. The quantitative data collection is suitable in this study and is better than other methods also because it is convenient for getting measurable data, afterwards formulating facts and revealing patterns that are focused on the objects of this paper. The survey starts with three filtering questions: to ensure that participants were comfortable answering the questions in English, that they had made an online purchase in the last 6 months and that they use Instagram at least lightly. Instagram is the example of a social media platform chosen in this research because it is one of the most popular and fastest growing social media applications in the world but has been analyzed significantly less in the context of data disclosure compared to Facebook. Moreover, there are some evidence that self-promoting and self-expression behavior on the Instagram platform are related to personality (Moon et al., 2016; Sheldon and Bryant, 2016). As personality traits are pivotal elements in this paper, engagement specifically on the Instagram platform will be invoked. Those participants who answered 'no' to at least one filtering question were redirected to the end of the survey. The middle and largest part of the questionnaire consists of constructs which were followed by demographic

questions such as gender, age, level of education and place of living. The research questionnaire is included in the annexes (see Annex 1).

Measures

All variables are measured using scales with proven reliability and validity that have been successfully used in previous studies. In addition, these particular scales were chosen because they have been observed to be the most commonly used in the existing literature on similar topics. In all instances, items are measured on a 1–7 Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). Trust is measured with a four-item "Propensity to Trust" scale developed by Frazier et al. (2013) and later used by Urbonavicius et al. (2021), Zimaitis, Urbonavicius and Kaduskeviciute (2021), Zimaitis et al. (2020). Personality trait neuroticism is assessed on a shortened version of the Big Five 44-item Inventory (John and Srivastava, 1999). This study takes a shorter (4-item) version of this scale, which was successfully used by Robinson (2018). Narcissism is measured with one of the most widely used narcissism scales - the Narcissistic Personality Inventory. As it originally consists of 40 items, it is often shortened for efficiency to the NPI-16 or NPI-13. The current research takes NPI-13 since Gentile et al. (2013) confirm that this version reasonably assesses narcissism and that it is superior compared to other scales. In addition, it was successfully used later by Dumas et al. (2017) and Moon et al. (2016). Engagement in social media is measured with a three-factor CBE (Consumer Brand Engagement) scale developed and validated by Hollebeek, Glynn and Brodie (2014). Measured with 10 items, the scale includes cognitive processing, affection, and activation dimensions which help to identify involvement and emotional attachment in specific social network settings. To measure self-disclosure, a 6-item scale is selected, used by Gruzd and Hernandez-Garcia (2018). Additionally, this scale was recently used by Zimaitis et al. (2022) and Zimaitis, Urbonavicius and Kaduskeviciute (2021). Willingness to disclose personal data (WTD) is measured by using the shortened scale that was suggested by Gupta, Iyer and Weisskirch (2010) and used by Heirman et al. (2013). Recently it was also successfully used by Zimaitis et al., (2022) and Urbonavicius et al. (2021). This questionnaire takes the entire abbreviated scale as the focus is on disclosure when registering to the online store. This includes both details that are mandatory for the transaction (name, last name, mobile phone number, email address, home address) as well as additional information requested in exchange for benefits (gender, marital status, date of birth). More information about the scales is presented in Annex 2.

Selection of respondents

The target population for this study is people who live in Lithuania, have at least a little engagement on the social media platform Instagram, shop online and are not younger than 18 years old. As regards the sampling method, non-probability, more specifically, convenience sampling is applied in this study. This approach is used due to its suitability and efficiency for such research as a large number of respondents are to be collected and the online survey is shared on social networks (easily accessible sample population). Two methods will be applied to determine the sample size for this research.

First, Cochran's formula (Cochran, 1954) will be used:

$$N = \frac{Z^2 PQ}{E^2}$$

E - margin of error, P - estimated proportion of the population, Z - confidence level on Z table. $Q = 1 - P$

The estimated margin of error is 0.5, P is a 95% confidence level:

$$Q = 1 - 0.95 = 0.5$$
$$Z = 1.96$$

$N = (\frac{1.96(5)}{0.5})^2 = 19.6^2 = 384.16 \; approx.$ This method shows that the number of respondents to be asked should be 385.

Second method, 12 articles referred to in this study are used to estimate the sample size. A detailed table of topics, sources, data collection methods and, most importantly, the number of respondents can be found in Annex 3. The average of the sample sizes of papers on similar topics was derived:

$$N = \frac{3741}{12} = 311.75$$

Taking both methods into account, it is evident that a sample size of between 312 and 385 is appropriate, hence an attempt is made to collect a similar number of respondents.

The data was collected using a self-administrated online survey. In total, the sample included 326 respondents, out of which 4 were unengaged, 17 were removed because they did not pass the control questions, 4 were under the age of 18 and 3 indicated that they live outside Lithuania. As a result, 28 respondents were removed, and the analysis is based on 298 responses.

Analyses of the collected data will be performed using SPSS (Statistical Package for the Social Sciences) developed by IBM (International Business Machines Corporation). After analyzing demographic data with the help of descriptive statistics, reliability of scales and computing variables will be done by taking Cronbach alpha into account and calculating the means of the scales. Hypothesis will be tested with multiple regression analyses.

3. DATA ANALYSIS AND REVIEW OF RESEARCH RESULTS

3.1. Demographic indicators of respondents

The sample included demographic questions regarding gender, age, level of education and place of living. In terms of gender distribution, 138 or 46.3% of the total number of responses were from men and 160 or 53.7% from women. This question had one more answer choice - other - which was not chosen by any individual. Thus, it can be considered that men and women participated in this survey in similar proportions and distribution is fairly even.

Participants were asked to indicate their age and it ranges from 18 to 44 years old. As mentioned before, 4 people indicated they are under the age of 18 and therefore their answers were not included in the analysis. The absence of older people can easily be explained by the fact that the survey was shared via social networks, meaning that only people who use social networks had the opportunity to participate in the survey. In addition, the entire questionnaire was conducted in English, which could also be a barrier for older people. Furthermore, the control questions may have had an impact as well because they included questions such as whether they shop online and if they use the social networking app Instagram. Therefore, those who have not shopped online in the last six months or do not use Instagram were asked to finish the survey and their answers were not included in the analysis. By dividing respondents into one or another category of age it is visible that the biggest group of respondents - 140 people - belong to the category where age ranges from 18 to 23 years old, which makes nearly half of all the respondents, 47% to be precise. This category is followed by the second which includes 109 respondents or 36.6% of total, who are between 24 and 30 years old. Significantly lower number of respondents - 34 or 11.4% - who range in age from 31 to 37 years. The smallest group is composed of those who are between 38 and 44 years old. There were only 15 such participants and they represent 5% of all respondents. It can be seen that the two distinctly largest groups in the survey consist of young people in their 20s. These findings suggest that people of this age are more likely to use social media sites and shop online compared to older people.

Concerning the level of education, there were 5 answer options in total and the most popular one was bachelor's degree which accounts for 133 respondents, making it almost half (44.6%) of all 298 respondents. As the respondents included in the analysis are at least 18 years old, there is no surprise that the smallest group is made up of people with less than a high school education. There are only 12 of them and they make up 4% of all respondents. The number of respondents who chose the other three groups is quite similarly distributed. There are 40 participants whose highest level of education is a high school degree, representing a total of 13.4%.

The undergraduate group is second largest and consists of 68 respondents or 22.8%, while those with master's degree or higher account for 45 participants, representing 15.1% of the total number of respondents. Consequently, the undergraduate and bachelor's degree being the most popular choices is entirely logical given the age distribution, with the largest number of people in this survey falling in the 18-30 age range.

Lastly, the final question of the survey and the demographic indicator analyzed is place of living. The questionnaire included 6 response options, one of which was "I live outside of Lithuania". As this research is being conducted in Lithuania and the vast majority of respondents live in Lithuania, it was chosen to exclude those who live abroad from further analysis to ensure accuracy. The majority of respondents live in one of the five largest cities in Lithuania, with almost half - 50.7%, which accounts for 151 respondents - living in the capital Vilnius. Another 104 respondents, or 34.9% of all respondents, live in Kaunas, Klaipėda, Šiauliai or Panevėžys. Respectively, only 9 respondents indicated countryside as their place of living, with a percentage of 3%, making it the least popular group. The remaining 34 people or 11.4% of total respondents live in a town which is not listed above. A graphical representation of the gender, age, education and place of residence distribution among respondents can be found in the Annex 4.

3.2. Assessment of scales and computing variables

In order to proceed with the study, the validity and reliability of scales must be checked first. The questionnaire included six scales which measure propensity to trust, neuroticism, narcissism, engagement in social media (Instagram), self-disclosure in social media and willingness to disclose personal data in online shopping. All the items are from scales which were validated in existing literature. The only scale that has been slightly modified in this questionnaire is regarding neuroticism. One out of four items included in the shortened version of the Big Five 44-item Inventory scale was formulated in an opposite way compared to all the others, and as a result it was reverse scored in the analysis. Additionally, in the existing literature this scale has been used with "I see myself as someone who" written above the statements, whereas in this survey it is added to each statement separately. The scales were assessed using reliability statistics which provides a useful indicator - Cronbach's alpha coefficient. Attention was also paid to the items in each scale individually and to the change in Cronbach's alpha after removing them. The aim of this was to ensure that, in the event of inconsistency, some items could be deleted to increase validity.

Table 1

Reliability of scales

Scale	Number of items	Cronbach's alpha coefficient
Propensity to trust	4	0.934
Neuroticism	4	0.902
Narcissism	13	0.894
Engagement in social media (Instagram)	10	0.917
Self-disclosure in social media	6	0.936
Willingness to disclose personal data in online shopping with registration	8	0.923

Source: prepared by the author on the basis of the research

As shown in Table 1, the lowest reliability coefficient is 0.894 which belongs to the Narcissism scale. All of the others are above 0.9, with the highest Cronbach alpha coefficient of 0.936 found in the self-disclosure in social media scale. Since Cronbach's alpha values for all scales are significantly above the recommended value of 0.70, the results confirm the reliability of the scales. Moreover, it is essential to check the Item-Total Statistics table which provides analysis of each scale's Cronbach's alpha if item is deleted. The score for each item was slightly lower than the alpha of the corresponding scale, indicating that removing any item would not result in an increase in Cronbach's alpha of the scales. Using the above information, conclusions can be made that every item is eligible, and scales do not need any other adjustments. Therefore, it can be stated that all the items in the questionnaire are valid and further analysis of the study can be continued. The original tables of reliability of scales can be found in the Annex 5.

Before testing hypotheses, it is necessary to compute means of each scale. All items in every of the six scales were rated on a Likert scale from 1 to 7, with 4 representing the midpoint, therefore it is convenient to analyze and provide comparisons.

Table 2

Comparison of means after computing variables

Scale	Mean
Propensity to trust	4.59
Neuroticism	3.81
Narcissism	4.25
Engagement in social media (Instagram)	4.41
Self-disclosure in social media	3.19
Willingness to disclose personal data in online shopping with registration	4.76

Source: prepared by the author on the basis of the research

From the Table 2 it is visible that all the means are either a little less or slightly above 4, which is the midpoint in this type of measurement. In contrast to Cronbach's alpha coefficient measures, where self-disclosure in social media was the highest among the other items, the scale mean is the lowest at 3.19. Meanwhile, the highest mean belongs to the scale of willingness to disclose personal data in online shopping with registration at 4.76. This may be due to the fact that disclosures on social media, unlike online shopping, are undefined and almost unregulated. Moreover, it can be closely linked to the inclusion of registration, as people who register in an online shop often get certain benefits such as personalization. Nevertheless, it means that those who participated in the survey are relatively willing to disclose personal data to an online shop, especially compared to a social network. Moreover, the mean of scale of engagement in social media, Instagram in particular, is 4.41, which is 1.22 points higher than the mean of self-disclosure in social media scale. This suggests that people are quite willing to engage in Instagram, however, when it comes to disclosing themselves, they are less inclined to do so. In terms of personality traits, on average, respondents have a relatively high propensity to trust, with a mean score of 4.59. Concerning narcissism, the mean of the scale is 4.25, which is also higher than the midpoint. Lastly, the scale of neuroticism has a mean equal to 3.81, which is less than the midpoint, indicating that participants of the survey in general tend to have lower levels of this trait. In other words, respondents see themselves more as individuals who are relaxed and handle stress well, rather than those who tend to worry a lot, be nervous and tense. Summarizing the means of the personality traits scales, the mean of neuroticism scale being lower than the mean scales of both

propensity to trust and narcissism indicates that the participants of this survey in general consider themselves to have high levels of emotional stability, higher self-esteem as well as self-superiority, and higher level of trust. Since all the criteria related to the scales and their reliability were met, further analysis can be carried out. The original tables of means after computing variables can be found in the Annex 6.

3.3. Hypotheses testing

The hypotheses testing subsection in the data analysis part tests the predicted relationships. The research model of this paper contains three dependent variables - engagement in Instagram, self-disclosure in social media and willingness to disclose personal data in online shopping. In total, 8 hypotheses are proposed, and the relationships under investigation involve two or more independent variables, thereby allowing them to be tested collectively. Therefore, all hypotheses are tested by multiple linear regression analyses.

Hypotheses H1 (*Propensity to trust positively influences engagement in social media*), H3 (*Narcissism positively influences engagement in social media*) and H5 (*Neuroticism negatively influences engagement in social media*) are classified in one group because they refer to the influence of personality traits on engagement with social media (Instagram). First, it is essential to check the significance of the regression and determine whether the model has a good fit. The output of the model found in analysis of variance table (see Annex 7) suggests that there exists a significant relationship between the dependent variable (engagement in social media -Instagram) and the set of independent variables (propensity to trust, neuroticism and narcissism), since the F-statistic of 55.115 is significant with its p value being lower than 0.001.

Additionally, there is a need to check the Model Summary table in order to understand how well the regression model explains observed data. Theoretically, the larger the adjusted R square, the better, as it implies that the selected independent variables can well explain the change in the dependent variable. According to the results, adjusted R Square is 0.353, which indicates that independent variables - propensity to trust, narcissism and neuroticism - explain 35.3% of engagement in social media (Instagram). This percentage is rather solid and it can therefore be argued that there is a good model fit.

Table 3

Regression analysis of H1, H3 and H5

	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	**Std. Error**			
(Constant)	2.311	0.391		5.913	<0.001
Propensity to trust	0.081	0.042	0.104	1.906	0.058
Neuroticism	-0.159	0.043	-0.192	-3.701	<0.001
Narcissism	0.548	0.073	0.43	7.553	<0.001

Note. Dependent variable - engagement in social media (Instagram)

Source: prepared by the author on the basis of the research

Table 3 provides a glimpse that a relationship between independent variables (selected personality traits) and dependent variables (engagement in social media - Instagram) might be present as proposed by hypothesis H1, H3 and H5. The most relevant data in the regression analysis table, in other words the coefficients table, are the significance level and the standardized coefficients beta. As the sample size is not very large, the relationships are considered significant at 0.1 level of significance. Furthermore, standardized regression coefficient ranges from 0 to 1 or 0 to -1, indicating the strength of the relationship between variables. As can be seen in table 3, propensity to trust influences engagement in social media - Instagram, as p is 0.058 and β is equal to 0.104. Even though the relation between those two variables is quite weak, it is still significant and as a result H1 is supported. Concerning another personality trait - narcissism - its relationship with engagement in social media is clearly significant with $p < 0.001$ and β = 0.43. That indicates the strong positive correlation between independent and dependent variables and as a result, H3 is also supported. Regarding neuroticism, it has p value < 0.001, while the standardized regression coefficient accounting for -0.192. That means the relationship between neuroticism and engagement in social media - Instagram is significant, yet negative. The hypothesis was formulated as follows - neuroticism negatively influences engagement in social media, therefore H5 is supported.

Further, the influence of social media engagement and narcissism on self-disclosure on social media is analyzed. H4 (*Narcissism positively influences self-disclosure in social media*) as well as H7 (*Engagement in social media positively influences self-disclosure in social media*) both

presume a positive impact on dependent variable - self-disclosure in social media (Instagram). ANOVA table from regression analysis indicates that F is 139.564 and $p < 0.001$, therefore regression is significant. Adjusted R Square from Model Summary table is 0.483 which reveals that 48.3% of the variability observed in the target variable is explained by the regression model. Since the abovementioned results are favourable and the fit of the model is proven to be good, the hypotheses can be examined.

Table 4

Regression analysis of H4 and H7

	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	-2.025	0.329		-6.149	<0.001
Engagement in social media (Instagram)	0.607	0.069	0.444	8.793	<0.001
Narcissism	0.598	0.088	0.343	6.791	<0.001

Note. Dependent variable - self-disclosure in social media

Source: prepared by the author on the basis of the research

Table 4 provides a clear indication of the favourable and expected results. To be precise, engagement in social media (Instagram) positively influences self-disclosure in social media, because beta coefficient is 0.444 and the level of significance is < 0.001. The relation between these two variables is very strong and it could be formulated that engagement in social media (Instagram) is inseparable from self-disclosure there, H4 is supported. Concerning narcissism, connection between independent and dependent variables is quite similar to the previous, as $\beta = 0.343$ while p is also below 0.001, indicating a positive significant impact. As a result, there exists a strong positive relationship and H7 is also supported.

The last, and perhaps the most important, relationships in this work are as follows: H2 (*Propensity to trust positively influences willingness to disclose personal data in online shopping*), H6 (*Neuroticism negatively influences intention to disclose personal data in online shopping*) and H8 (*Engagement in social media positively influences the willingness to disclose personal data when shopping online*) were tested. The analysis of variance table indicates that the regression is significant as F is 79.534 and $p < 0.001$. The Model Summary reports Adjusted R Square metric being 0.442. This suggests that the independent variables (neuroticism, propensity to trust and engagement in social media -Instagram) explain 44.2% of the total variation of the willingness to

disclose personal data in online shopping. The adjusted R Square is high, suggesting that these factors have a significant influence on personal data disclosure in online shopping.

Table 5

Regression analysis of H2, H6 and H8

	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	B	Std. Error			
(Constant)	1.781	0.396		4.502	<0.001
Neuroticism	-0.11	0.047	-0.113	-2.326	0.021
Propensity to trust	0.379	0.044	0.415	8.67	<0.001
Engagement in social media (Instagram)	0.376	0.058	0.319	6.445	<0.001

Note. Dependent variable - willingness to disclose personal data in online shopping

Source: prepared by the author on the basis of the research

As can be seen in Table 5, personality trait neuroticism has a negative standardized coefficient Beta which is equal to -0.113. The P value is 0.021, which indicates that the relationship is significant. Consequently, neuroticism has a negative impact on the intention to disclose personal data in online shopping and as a result, H6 is supported. Standardized regression coefficient of propensity to trust is 0.415 while p value is below 0.001. Therefore, it is reasonable to say that H2 is also supported as propensity to trust has a very strong positive impact on willingness to disclose personal data in online shopping. Lastly, concerning engagement in social media (Instagram), β indicates a relatively high explanatory power of this relationship. Beta coefficient equals 0.319 and the value of p < 0.001 proves that this relationship is significantly positive. As a result, engagement in social media is proven to positively influence the willingness to disclose personal data when shopping online, and as a result the very last H8 is supported.

Table 6

Summary of hypothesis testing

Hypothesis	Relationship	Estimate	P	Result
H1	TRUST ⟶ BRANDENGAG	0.104	0.058	Accepted
H2	TRUST ⟶ WTDO	0.415	***	Accepted
H3	NARCI ⟶ BRANDENGAG	0.43	***	Accepted
H4	NARCI ⟶ WTDSM	0.343	***	Accepted
H5	NEURO ⟶ BRANDENGAG	-0.192	***	Accepted
H6	NEURO ⟶ WTDO	-0.113	0.021	Accepted
H7	BRANDENGAG ⟶ WTDSM	0.444	***	Accepted
H8	BRANDENGAG ⟶ WTDO	0.319	***	Accepted

Note. TRUST - propensity to trust, NARCI - narcissism, NEURO - neuroticism, BRANDENGAG - engagement in social media (Instagram), WTDSM - self-disclosure in social media, WTDO - willingness to disclose personal data in online shopping, *** significance $p < 0.001$.

Source: prepared by the author on the basis of the research

Table 6 provides a summary of the results of this empirical study. To conclude, all 8 hypotheses confirmed the predicted relationships. See Annex 7 for a more detailed overview.

3.4. Discussion of the research results

Social exchange theory plays a key role in this work as it was a background for the research model and analysis. SET considers trust to be fundamental in reciprocal as well as negotiated exchanges in the context of personal data disclosure. Data analysis of this research regarding propensity to trust accepted both, that they have significant positive relationship with engagement in social media and willingness to disclose personal information in shopping online. That is fully consistent with the results obtained in previous works, as trust in general is considered to be one of the most important factors in such contexts (Fogel and Nehmad, 2009; Urbonavičius et al., 2021). In addition, the aforementioned theory argues that behaviour in reciprocal type of exchange influences behaviour in negotiated exchange, which in this study is engagement in social media (Instagram) and willingness to disclose personal data in shopping online accordingly. Zimaitis, Urbonavicius and Kaduskeviciute (2021) suggest that involvement in social media platforms has

an impact on self-disclosure in those platforms and beyond - in e-commerce. The results received in this research support the existing ones as it is found that engagement in social media (Instagram) positively influence both personal data disclosure in social media and shopping online, therefore it can be concluded that this factor is indeed significant. Therefore, findings of this study are in compatibility with social exchange theory statements as well as former observations. Concerning another personality trait analyzed in this paper - narcissism, the analysis of the data states that narcissism positively influences both engagement as well as self-disclosure in social media. This not only confirms the expected results, but also coincides with the previous hypothesis that engagement in social media impacts self-disclosure in social media. With respect to similar works in the existing literature, the hypotheses on narcissism supported in this paper are consistent with findings by Moon et al., (2016) and Dumas et al., (2017), as they confirmed that individuals with higher levels of narcissism have a greater tendency to be more active online. As for the last personality trait - neuroticism - it was the only independent variable in this study that was expected to have a negative influence on engagement in social media (Instagram) and willingness to disclose personal data in online shopping. From the above analyses it can be seen that both hypotheses have been confirmed, with significant relationships found. These findings correspond to and confirm conclusions derived from Robinson, 2018 and Loiacono, 2015, who in their studies suggest that neuroticism has a significant impact on personal data disclosure online.

CONCLUSIONS AND RECOMMENDATIONS

The conclusions of the literature review and the results of the research on selected personality traits, engagement in social media and their impact on online data disclosure are as follows:

1. The ever-increasing use of the internet is leading to greater disclosure of private data online, which is a growing concern. It is important to have a clear understanding of what personal data is, when and how it is disclosed, by whom and for what purposes it is used. Even more, it is beneficial to comprehend what factors influence the propensity to disclose it. This is particularly important to know because not being aware of abovementioned things might pose some risks such as identity theft, public exposure and phishing, while having a good knowledge regarding personal data disclosure can provide benefits like self-expression and social recognition as well as personalization and convenience.

2. The personal information exposed on social media is usually in the form of photos, opinions or views and is essential for the existence of social networks. Furthermore, personal data disclosure in online shopping such as name, surname, home address, bank card details and beyond is crucial for making a purchase of a product or service online. Additional information including date of birth, gender and marital status is needed for registration to an online store. An examination of the importance of personal data has also shown that it is essential for organizations to be able to monitor customer behaviour in order to better understand their interests and preferences. This leads to more relevant and targeted offers, thereby enhancing the customer's shopping experience and driving sales. In addition, personal data is becoming increasingly popular due to the application of e-commerce in business, making it indispensable for marketing, especially for the creation of personalized content. Therefore, understanding the influencing factors can be used in the right way to ensure the safety and privacy of internet users as well as the prosperity of businesses that apply this knowledge.

3. Most of the academic studies on personal data disclosure online use Privacy Calculus Model as a theoretical basis. While its risk-benefit model is useful for understanding disclosure in many online domains, it has some limitations in the context of self-disclosure in social media and e-commerce. PCM is considered to be too rational and underestimates the trust factor as well as personality traits. Therefore, this paper has used social exchange

theory as a theoretical framework. This theory is based on two types of exchange and their interrelationship, thus in this study, when analyzing the disclosure of personal information online, reciprocal exchanges are associated with social media engagement and negotiated exchanges with online shopping. The current paper reaffirms the relevance and validity of the SET on the topic of personal data disclosure.

4. SET was used to identify social media engagement relevance in the context of personal data disclosure. The performed scientific literature analysis suggests that engagement in social media is hardly possible without data disclosure in there, and consequently, it shows that engagement in social media influences self-disclosure in social media. Furthermore, engagement in social networks has been shown to have an impact on the disclosure of personal data not only on social networks, but also beyond them, when shopping online. This is consistent with the social exchange theory, as according to the model, reciprocal exchange influences negotiated exchange in the context of personal data disclosure.

5. The examined scientific literature concerning personality traits suggests that propensity to trust is a significant predictor of both engagement in social media and willingness to disclose personal data when shopping online. Moreover, narcissism has been found to influence engagement in social networks, with the implication that people with high levels of this trait are more likely to seek attention and enjoy self-presentation. Regarding neuroticism, the most prevalent view is that this trait negatively affects engagement in social media. In the context of data disclosure online, academic literature on neuroticism suggests that people with higher levels of neuroticism are less likely to disclose their personal data online.

6. In respect to the research analysis, the abovementioned relationships discussed in the literature review were tested and all 8 proposed hypotheses were confirmed. To be precise, the results obtained in the current study proved that engagement in Instagram has a strong positive influence on both self-disclosure on social media and the propensity to disclose personal data when shopping online.

7. The results of the empirical research also confirmed that narcissism has a strong positive impact on both engagement in Instagram as well as self-disclosure in social networking sites. These findings indicate that narcissists are more active and visible on social media compared to those who tend to have lower levels of this trait.

8. Furthermore, the empirical research proved that personality trait neuroticism has a negative impact on engagement in social media, Instagram to be precise. Likewise, the study confirmed that neuroticism indeed negatively influences willingness to disclose personal data in e-commerce.

9. The results of the research, in accordance with SET, proved that trust is a crucial factor in the context of data disclosure between reciprocal and negotiated exchanges. It could be stated that the propensity to trust built in reciprocal exchanges enhances trust in other types of exchanges and consequently increases the willingness to disclose personal data.

Recommendations

This study is expected to provide knowledge and benefits for both individuals and organizations. It is intended to shed more light on what influences people's involvement in social networks and their propensity to disclose data there as well as when shopping online. Moreover, this is expected to contribute towards raising awareness and empowering people to make rational decisions while protecting their private data. Furthermore, this work is likely to be of interest to marketers, as the better they understand the factors which influence the disclosure of consumer data when shopping online, the more effectively they can use that information. Therefore, the recommendations based on literature analysis and research results are as follows:

1. Since engagement in Instagram has a direct impact on data disclosure in online shopping, organizations should consider having an Instagram account and building a relationship with current and potential customers there. They should be active and upload lots of engaging content, for instance contests and limited-time promotions such as giveaways, to encourage people to engage and self-disclose.

2. As engagement and privacy disclosures in social media influence disclosures in e-commerce, companies should think about how to link these two sites. For example, they should allow access and invite people to their e-commerce site via Instagram. In addition, when registering in an online store, it might be useful to include a possibility for customers to link their social media accounts in order to automatically fill in certain information, thus speeding up the registration process. Simultaneously, the company would receive permission to access more customer data, which is contained in the social account.

3. Furthermore, as customer data is crucial for companies, more attention could be paid to obtaining it. For example, to encourage more people to sign up for the online shop by offering recurring discounts to those who have an account and free gifts to those who create an account. In addition, e-commerce should be personalized and consumer friendly, to keep customers coming back.

4. As personality traits also influence engagement and data disclosure, it could be valuable to make additional analysis of the target audience so that marketers could use that knowledge to create communications accordingly. Advertisements can be made relatable,

and a company or product can reflect consumers' values and lifestyles. Moreover, since the propensity to trust has a significant impact on the intention to engage and disclose information, businesses should take this factor seriously and foster customer trust in its activities and operating procedures.

This paper has encountered several limitations. First, the survey was carried out using convenience sampling, therefore the behaviour patterns might not represent the whole population and further research could be done applying different types of sampling. Moreover, people who participated in the survey live in Lithuania, hence the results may be more accurate and relevant to Lithuania and differ in other countries. Also, the personality traits analyzed in this paper are not the only factors influencing engagement in social media (Brodie et al., 2013) and data disclosure online (Zimaitis et al., 2022), thus further studies could investigate other factors. Furthermore, in the existing literature, several studies were found that divided the personality trait narcissism into grandiose and vulnerable narcissism. Studies carried out with these extremes have obtained different results, indicating that people with very high levels of narcissism (grandiose) behave in the opposite way to those with low levels of narcissism (vulnerable) in relation to data disclosure online and social media (Geary, March and Grieve, 2021; Nardis and Panek, 2019). Similarly, Amichai-Hamburger and Vinitzky (2010) in their research found that people with either very high or extremely low levels of neuroticism are prone to disclose more information in social networks in comparison to those with medium levels. Therefore, future work could focus on different levels of personality traits. Lastly, the willingness to disclose personal data when shopping online was with a condition that it is performed with registration to the online shop, the result may be different in the case of a buying online without registration.

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PASIRINKTŲ ASMENYBĖS SAVYBIŲ POVEIKIS ĮSITRAUKIMUI Į SOCIALINIUS TINKLUS IR NORUI ATSKLEISTI ASMENINIUS DUOMENIS INTERNETE

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Bakalauro baigiamasis darbas

Rinkodaros ir globalaus verslo programa

Vilniaus universiteto Ekonomikos ir verslo administravimo fakultetas

Darbo vadovas - Prof., Dr. (HP) Sigitas Urbonavičius

Vilnius, 2023

SANTRAUKA

54 puslapiai, 1 paveikslas, 6 lentelės, 90 šaltinių nuorodos.

Pagrindinis bakalauro darbo tikslas - įvertinti pasirinktų asmenybės savybių - polinkio pasitikėti, neurotiškumo ir narcisizmo - įtaką įsitraukimui į socialinį tinklą ir norui atskleisti asmeninius duomenis apsiperkant internetu. Mokslinį darbą sudaro trys pagrindiniai skyriai: mokslinės literatūros analizė, tyrimo metodologija, duomenų analizė ir tyrimo rezultatų apžvalga, po kurių pateikiamos išvados ir rekomendacijos.

Literatūros analizė atlikta siekiant apžvelgti sąvokas ir teorijas, susijusias su asmens duomenų atskleidimu internete, įsitraukimu į socialinę žiniasklaidą, duomenų atskleidimu internetinėje parduotuvėje ir asmenybės bruožais, kurie gali turėti įtakos tokiems veiksmams.

Po literatūros apžvalgos buvo atliktas kiekybinis tyrimas, kurį sudarė internetinis klausimynas. Apklausoje dalyvavo žmonės, kurie naudojasi socialinio tinklo "Instagram" platforma ir apsiperka internetu. Empirinis tyrimas atskleidė, kad įsitraukimas ir savęs atskleidimas socialiniuose tinkluose, taip pat polinkis pasitikėti teigiamai veikia polinkį atskleisti asmens duomenis apsiperkant internetu. Kita vertus, nustatyta, kad neurotiškumas neigiamai veikia tiek informacijos atskleidimą elektroninėje prekyboje, tiek įsitraukimą į "Instagram" platformą. Be to, asmenybės bruožas narcisizmas stipriai veikia įsitraukimą ir savęs atskleidimą socialinėje žiniasklaidoje. Taip pat nustatyta, kad polinkis pasitikėti turi įtakos įsitraukimui į "Instagram", o įsitraukimas į "Instagram" teigiamai veikia savęs atskleidimą socialinėje žiniasklaidoje.

THE IMPACT OF SELECTED PERSONALITY TRAITS ON ENGAGEMENT IN SOCIAL MEDIA AND ON WILLINGNESS TO DISCLOSE PERSONAL DATA ONLINE

ERIKA SATKEVIČIŪTĖ

Bachelor Thesis

Marketing and Global Business programme

Faculty of Economics and Business Administration of Vilnius University

Supervisor – Prof., Dr. (HP) Sigitas Urbonavičius

Vilnius, 2023

SUMMARY

54 pages, 1 figure, 6 tables, 90 references.

The main aim of the bachelor thesis was to evaluate the impact of selected personality traits - propensity to trust, neuroticism and narcissism - on engagement in a social network and on the willingness to disclose personal data when shopping online. The academic paper consists of three main chapters: the analysis of scientific literature, research methodology, data analysis and review of research results, after which conclusions and recommendations are presented.

The literature analysis was carried out to review the concepts and theories of online personal data disclosure, social media engagement, data disclosure in online stores, and the personality traits that may influence such actions.

The literature review was followed by a quantitative study, which included an online questionnaire. The survey was conducted among people who use the social networking platform Instagram and shop online. The empirical research revealed that engagement and self-disclosure in social media as well as propensity to trust positively impacts willingness to disclose personal data in online shopping. On the other hand, neuroticism was found to influence both information disclosure in e-commerce and engagement in Instagram negatively. Furthermore, personality trait narcissism strongly impacts engagement and self-disclosure in social media. It was also found that the propensity to trust has an impact on engagement on Instagram, and engagement on Instagram has a positive effect on self-disclosure on social media.

ANNEXES

Research on the willingness to disclose personal data online

Dear respondent,

I am a fourth year marketing and global business student at the Faculty of Economics and Business Administration, Vilnius University. Currently, I am working on my bachelor's thesis on the use of personal data in marketing. The research I am conducting requires data, therefore your answers are very much needed and appreciated. The survey is anonymous, i.e. your answers will not be linked to you personally, and the results will only be used in aggregate form. There are no right or wrong answers. The focus is just on your attitudes towards the statements of the survey. It will take you up to 10 minutes to complete the survey, and I will be sincerely grateful for your input.

1. Are you comfortable answering questions in English?

   - Yes

   - No

2. Have you bought anything online in the period of last 6 months?

   - Yes

   - No

3. Do you use Instagram at least lightly?

   - Yes

   - No

4. Please indicate to what extent you agree with the statements below on a scale ranging from 1 (Strongly disagree) to 7 (Strongly agree).

	1	2	3	4	5	6	7
I usually trust people until they give me a reason not to trust them							
Trusting another person is not difficult for me							
My typical approach is to trust new acquaintances until they prove I should not trust them							
My tendency to trust others is high							

5. Please indicate to what extent you agree with the statements below on a scale ranging from 1 (Strongly disagree) to 7 (Strongly agree).

	1	2	3	4	5	6	7
I see myself as someone who is relaxed, handles stress well							
I see myself as someone who gets nervous easily							
I see myself as someone who worries a lot							
I see myself as someone who can be tense							

6. Please indicate to what extent you agree with the statements below on a scale ranging from 1 (Strongly disagree) to 7 (Strongly agree).

	1	2	3	4	5	6	7
I like having authority over other people							

I have a strong will to power							
People always seem to recognize my authority							57
I am a born leader							
I know that I am a good person because everybody keeps telling me so							
I like to show off my body							
I like to look at my body							
I will usually show off if I get the chance							
I like to look at myself in the mirror							
I find it easy to manipulate people							
I insist upon getting the respect that is due me							
I expect a great deal from other people							
I will never be satisfied until I get all that I deserve							

7. Please indicate to what extent you agree with the statements below on a scale ranging from 1 (Strongly disagree) to 7 (Strongly agree).

	1	2	3	4	5	6	7
Using Instagram gets me to think about Instagram							
I think about Instagram a lot when I'm using it							
Using Instagram stimulates my interest to learn more about Instagram							
I feel very positive when I use Instagram							

Using Instagram makes me happy							
I feel good when I use Instagram							
I'm proud to use Instagram							
I spend a lot of time using Instagram, compared to other social media brands							
Whenever I'm using social media, I usually use Instagram							
Instagram is one of the brands I usually use when I use social media							

8. Please indicate to what extent you agree with the statements below on a scale ranging from 1 (Strongly disagree) to 7 (Strongly agree).

	1	2	3	4	5	6	7
I usually talk about myself on social media for fairly long periods							
I often discuss my feelings about myself on social media							
I often express my personal beliefs and opinions on social media							
I typically reveal information about myself on social media without intending to							
I often disclose intimate, personal things about myself on social media without hesitation							
When I post about myself on social media, the posts are fairly detailed							

9. When shopping online, you may choose to register to online store in order to benefit your current and future purchases: receive personalized offers, get more convenient search options, and faster shopping from the same online store the next time you buy. However,

more personal data is requested when registering to the store. Please, specify, to what extent you are willing to provide the personal data of each type. 1 means "Not willing at all" and 7 means "Very much willing".

	1	2	3	4	5	6	7
Home address							
Mobile phone number							
Email address							
Date of birth							
Marital status							
Name							
Last name							
Gender							

10. What is your gender?
- Male
- Female
- Other

11. What is your age?

———

12. What is your level of education?
- Less than a high school degree
- High school degree
- Undergraduate
- Bachelor's degree
- Master's degree or above

13. What is your place of living?

- Vilnius
- Kaunas, Klaipeda, Siauliai, Panevezys
- Other town
- Countryside
- I live outside of Lithuania

Annex 2. Definitions and sources of scales

Scale	Scale definition	Source
Trust	Propensity to trust	Frazier et al. (2013)
Neuroticism	Big Five 44-item Inventory	John and Srivastava (1999)
Narcissism	the Narcissistic Personality Inventory (NPI-13)	Gentile et al. (2013)
Engagement	Consumer Brand Engagement	Hollebeek, Glynn and Brodie (2014)
Self-disclosure	Self-disclosure	Gruzd and Hernandez-Garcia (2018)
Data disclosure	Willingness to disclose personal data	Gupta, Iyer and Weisskirch (2010); Heirman et al. (2013)

Topic	Source	Method of data collection	Number of respondents
Factors predicting attitude toward disclosing personal data online	Robinson (2018)	Online survey	257
From social networking to willingness to disclose personal data when shopping online: Modelling in the context of social exchange theory	Urbonavicius et al. (2021)	Online survey	480
Voluntary sharing and mandatory provision: Private information disclosure on social networking sites	Li, Cheng and Teng (2020)	Field surveys and laboratory experiments	376
Social network use and personality	Amichai-Hamburger and Vinitzky (2010)	Self-report measures	237
Do context and personality matter? Trust and privacy concerns in disclosing private information online	Bansal, Zahedi and Gefen (2016)	Controlled lab experiments with online access	367
Internet social network communities: Risk taking, trust, and privacy concerns	Fogel and Nehmad (2009)	Survey	205
The more the better? Data disclosure between the conflicting priorities of privacy concerns, information sensitivity and personalization in e-commerce	Gouthier et al. (2022)	Online survey	306
Online consumer privacy concern and willingness to provide personal data on the internet	Miltgen (2009)	Questionnaire	270
Understanding user misrepresentation behavior on social apps: The perspective of privacy calculus theory	Tang and Ning (2022)	Online survey	465

Consumer perceived risk in online shopping environment via Facebook as medium	Panwar (2018)	Questionnaire	180
Instagram: Motives for its use and relationship to narcissism and contextual age	Sheldon and Bryant (2016)	Survey	239
Self-Disclosure Behavior on Social Networking Web Sites	Loiacono (2015)	Survey	359

Annex 4. Output from SPSS regarding demographic indicators

Gender distribution

What is your gender?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	138	46.3	46.3	46.3
	Female	160	53.7	53.7	100.0
	Total	298	100.0	100.0	

Education distribution

What is your level of education?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than a high school	12	4.0	4.0	4.0
	High school degree	40	13.4	13.4	17.4
	Undergraduate	68	22.8	22.8	40.3
	Bachelor's degree	133	44.6	44.6	84.9
	Master's degree or above	45	15.1	15.1	100.0
	Total	298	100.0	100.0	

Age distribution

What is your age?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18	7	2.3	2.3	2.3
	19	9	3.0	3.0	5.4
	20	30	10.1	10.1	15.4
	21	12	4.0	4.0	19.5
	22	40	13.4	13.4	32.9
	23	42	14.1	14.1	47.0
	24	16	5.4	5.4	52.3
	25	16	5.4	5.4	57.7
	26	21	7.0	7.0	64.8
	27	17	5.7	5.7	70.5
	28	8	2.7	2.7	73.2
	29	17	5.7	5.7	78.9
	30	14	4.7	4.7	83.6
	31	5	1.7	1.7	85.2
	33	6	2.0	2.0	87.2
	34	3	1.0	1.0	88.3
	35	3	1.0	1.0	89.3
	36	6	2.0	2.0	91.3
	37	11	3.7	3.7	95.0
	38	5	1.7	1.7	96.6
	39	1	.3	.3	97.0
	40	2	.7	.7	97.7
	41	1	.3	.3	98.0
	42	4	1.3	1.3	99.3
	44	2	.7	.7	100.0
	Total	298	100.0	100.0	

Place of residence distribution

What is your place of living?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Vilnius	151	50.7	50.7	50.7
	Kaunas, Klaipeda, Siauliai, Panevezys	104	34.9	34.9	85.6
	Other town	34	11.4	11.4	97.0
	Countryside	9	3.0	3.0	100.0
	Total	298	100.0	100.0	

Propensity to trust scale

Case Processing Summary

		N	%
Cases	Valid	298	100.0
	Excluded[a]	0	.0
	Total	298	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.934	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I usually trust people until they give me a reason not to trust them	13.56	18.227	.847	.913
Trusting another person is not difficult for me	13.93	19.076	.811	.924
My typical approach is to trust new acquaintances until they prove I should not trust them	13.78	18.966	.855	.911
My tendency to trust others is high	13.86	17.441	.868	.906

Neuroticism scale

Case Processing Summary

		N	%
Cases	Valid	298	100.0
	Excluded[a]	0	.0
	Total	298	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.902	4

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
R-I see myself as someone who is relaxed, handles stress well	11.84	16.452	.706	.902
I see myself as someone who gets nervous easily	11.38	16.626	.805	.865
I see myself as someone who worries a lot	11.31	15.736	.831	.854
I see myself as someone who can be tense	11.17	16.540	.785	.871

Narcissism scale

Case Processing Summary

		N	%
Cases	Valid	298	100.0
	Excluded[a]	0	.0
	Total	298	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.894	13

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I like having authority over other people	51.02	105.996	.625	.884
I have a strong will to power	50.98	105.996	.661	.883
People always seem to recognize my authority	50.97	110.780	.580	.887
I am a born leader	51.10	104.780	.647	.883
I know that I am a good person because everybody keeps telling me so	50.08	111.498	.513	.889
I like to show off my body	51.78	104.488	.645	.883
I like to look at my body	50.85	107.085	.579	.886
I will usually show off if I get the chance	51.61	103.962	.659	.882
I like to look at myself in the mirror	50.62	108.445	.570	.887
I find it easy to manipulate people	51.75	108.357	.490	.891
I insist upon getting the respect that is due me	51.09	109.129	.556	.888
I expect a great deal from other people	50.96	109.389	.543	.888
I will never be satisfied until I get all that I deserve	50.91	106.477	.619	.885

Engagement in social media (Instagram) scale

Case Processing Summary

		N	%
Cases	Valid	298	100.0
	Excluded[a]	0	.0
	Total	298	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.917	10

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Using Instagram gets me to think about Instagram	39.86	101.441	.603	.913
I think about Instagram a lot when I'm using it	40.11	99.955	.660	.910
Using Instagram stimulates my interest to learn more about Instagram	40.56	101.850	.563	.916
I feel very positive when I use Instagram	39.76	98.805	.722	.907
Using Instagram makes me happy	39.72	99.151	.755	.905
I feel good when I use Instagram	39.59	99.218	.749	.906
I'm proud to use Instagram	40.16	104.690	.611	.913
I spend a lot of time using Instagram, compared to other social media brands	39.02	92.764	.761	.904
Whenever I'm using social media, I usually use Instagram	38.95	92.927	.771	.904
Instagram is one of the brands I usually use when I use social media	38.84	93.471	.746	.905

Self-disclosure in social media scale

Case Processing Summary

		N	%
Cases	Valid	298	100.0
	Excluded[a]	0	.0
	Total	298	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.936	6

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
I usually talk about myself on social media for fairly long periods	15.87	55.387	.873	.916
I often discuss my feelings about myself on social media	15.92	55.054	.885	.915
I often express my personal beliefs and opinions on social media	15.77	55.301	.852	.919
I typically reveal information about myself on social media without intending to	16.40	63.373	.606	.947
I often disclose intimate, personal things about myself on social media without hesitation	16.14	56.202	.829	.922
When I post about myself on social media, the posts are fairly detailed	15.69	56.296	.817	.924

Willingness to disclose personal data scale

Case Processing Summary

		N	%
Cases	Valid	298	100.0
	Excluded[a]	0	.0
	Total	298	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.923	8

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
WTD [Home address]	34.05	81.435	.707	.917
WTD [Mobile phone number]	33.74	80.561	.774	.911
WTD [Email address]	33.44	83.116	.757	.912
WTD [Date of birth]	33.43	82.245	.784	.910
WTD [Marital status]	33.42	81.295	.692	.918
WTD [Name]	32.71	85.177	.767	.912
WTD [Last name]	33.05	82.263	.784	.910
WTD [Gender]	32.77	85.685	.695	.917

Annex 6. Output from SPSS regarding means after computing variables

Propensity to trust scale

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
MEANTRUST	298	1.00	7.00	4.5940	1.41540
Valid N (listwise)	298				

Narcissism scale

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
MEANNARCI	298	2.08	6.54	4.2548	.85988
Valid N (listwise)	298				

Neuroticism scale

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
MEANNEURO	298	1.00	7.00	3.8079	1.32582
Valid N (listwise)	298				

Engagement in social media (Instagram) scale

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
MEANBRNADENGAG	298	1.50	7.00	4.4064	1.09728
Valid N (listwise)	298				

Self-disclosure in social media scale

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
MEANWTDSM	298	1.00	6.33	3.1930	1.49958
Valid N (listwise)	298				

Willingness to disclose personal data scale

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
MEANWTDO	298	1.00	7.00	4.7609	1.29225
Valid N (listwise)	298				

Annex 7. Output from SPSS regarding hypotheses testing

Model Summary of H1, H3, H5

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.600[a]	.360	.353	.88232

a. Predictors: (Constant), MEANNARCI, MEANNEURO, MEANTRUST

ANOVA of H1, H3, H5

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	128.721	3	42.907	55.115	<.001[b]
	Residual	228.877	294	.778		
	Total	357.598	297			

a. Dependent Variable: MEANBRNADENGAG

b. Predictors: (Constant), MEANNARCI, MEANNEURO, MEANTRUST

Coefficients of H1, H3, H5

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.311	.391		5.913	<.001
	MEANTRUST	.081	.042	.104	1.906	.058
	MEANNEURO	-.159	.043	-.192	-3.701	<.001
	MEANNARCI	.548	.073	.430	7.553	<.001

a. Dependent Variable: MEANBRNADENGAG

Model Summary of H4, H7

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.697[a]	.486	.483	1.07856

a. Predictors: (Constant), MEANNARCI, MEANBRNADENGAG

ANOVA of H4, H7

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	324.706	2	162.353	139.564	<.001[b]
	Residual	343.171	295	1.163		
	Total	667.877	297			

a. Dependent Variable: MEANWTDSM

b. Predictors: (Constant), MEANNARCI, MEANBRNADENGAG

Coefficients of H4, H7

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-2.025	.329		-6.149	<.001
	MEANBRNADENGAG	.607	.069	.444	8.793	<.001
	MEANNARCI	.598	.088	.343	6.791	<.001

a. Dependent Variable: MEANWTDSM

Model Summary of H2, H6, H8

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.669[a]	.448	.442	.96499

a. Predictors: (Constant), MEANBRNADENGAG, MEANTRUST, MEANNEURO

ANOVA of H2, H6, H8

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	222.188	3	74.063	79.534	<.001[b]
	Residual	273.777	294	.931		
	Total	495.965	297			

a. Dependent Variable: MEANWTDO

b. Predictors: (Constant), MEANBRNADENGAG, MEANTRUST, MEANNEURO

Coefficients of H2, H6, H8

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.781	.396		4.502	<.001
	MEANNEURO	-.110	.047	-.113	-2.326	.021
	MEANTRUST	.379	.044	.415	8.670	<.001
	MEANBRNADENGAG	.376	.058	.319	6.445	<.001

a. Dependent Variable: MEANWTDO