The Effects of Self-Esteem and Online Privacy Concern on Generations' Attitudes Towards Instagram

Benlik Saygısı ve Çevrimiçi Mahremiyet Kaygısının Kuşakların Instagram Tutumları Üzerindeki Etkisi

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Öz

Bu makale, kuşak farkları, özsaygı ve çevrimiçi gizlilik endişelerinin etkileşimini ve bu faktörlerin Instagram'a yönelik tutumları nasıl şekillendirdiğini incelemektedir. 482 katılımcıdan toplanan veriler, en küçük kareler yöntemine dayalı aracılık analizi ile incelenmiştir. Makalenin yöntemi olarak sıradan en küçük kare ve regresyon modeli birlikte kullanılmıştır. Kuşağın tutumları doğrudan etkilediği tespit edilmiştir. Y kuşağı bireyleri, X kuşağına kıyasla Instagram'a karşı daha olumlu niteliklere sahiptir. Benzer şekilde Z kuşağı, X kuşağına kıyasla daha olumlu Instagram özelliklerine sahiptir. Belirleyiciler arasındaki etkileşimler de önemlidir. Benlik saygısı X kuşağından Y kuşağına düştükçe, olumlu tutumları artma eğilimindedir. Bu, X ile karşılaştırıldığında Z için de geçerlidir. Sosyal kuşak farkının etkisi, çevrimiçi kimlik-Instagram mahremiyet kaygısı için de keşfedilmiştir. Bu etki, "X'ten Z'ye" ve "Y'den Z'ye" nesiller arasında tespit edilmiştir. X ile karşılaştırıldığında, Z kuşağı daha az çevrimiçi kimlik-Instagram mahremiyet kaygısına sahiptir. Bu nedenle sosyal kuşak farklılıkları Instagram'a yönelik tutum üzerinde doğrudan ve anlamlı bir etkiye sahipken, benlik saygısı ve mahremiyet kaygıları da aracı değişkenler olarak önemli rol oynamaktadır. Makalede, "Çevrimiçi Mahremiyet Endişesi Ölçeği", "Çevrimiçi Kimlik-Instagram Mahremiyet Endişesi Ölçeği" olarak revize edilmiş ve "Sosyal Medya Bağımlılığı Ölçeği Yetişkin Formu", "Instagram'a Karşı Tutum Ölçeği" olarak, geçerlik ve güvenirlik testleri temelinde revize edilmiştir.

Anahtar Kelimeler: *Sosyal Kuşak, Instagram'a Yönelik Tutumlar, Benlik Saygısı, Çevrimiçi Kimlik-Instagram Mahremiyet Kaygısı, Sosyal Medya*

Abstract

This article examines the interplay of generational differences, self-esteem, and online privacy concerns and how these factors shape attitudes towards Instagram. The data collected from 482 respondents have been investigated for mediation analysis based on the least squares method. Ordinary least square and regression models are used together as the method of the article. It has been determined that generation directly affects attitudes. Y generation individuals have more positive attributes towards Instagram than generation X. Similarly, generation Z has more positive Instagram attributes than generation X. The interactions between predictors are also significant. As self-esteem decreases from generation X to Y, their positive attitudes tend to increase. This is also true for the Z compared to the X. The effect of social generation difference has also been discovered for online identity-Instagram privacy concern. This effect has been detected between the "X to Z" and "Y to Z" generations. Compared to the X, the Z generation has fewer online identity-Instagram privacy concern. Therefore, while social generation differences have a direct and significant effect on the attitude towards Instagram, self-esteem and privacy concerns also play important roles as mediating variables. In the article, the "Online Privacy Concern Scale" has been revised as the "Online Identity-Instagram Privacy Concern Scale", and the "Social Media Addiction Scale Adult Form" has been revised as the "Scale of Attitude towards Instagram", based on validity and reliability tests.

Keywords: *Social Generation, Attitudes Towards Instagram, Self-Esteem, Online Identity-Instagram Privacy Concern, Social Media*

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Introduction

Digital technologies and social media platforms affect the attitudes and behaviors of users as they become a new stage for self-expression, presentation, and communication (Wang et al., 2021; Zhang et al., 2016)This article takes an in-depth journey into the attitudes of Instagram users from different generations. It examines the complex interplay of generational differences, self-esteem, and online privacy concerns and how these factors shape attitudes toward Instagram.

The increasing importance and frequency of using Instagram reveals the necessity of such a study. As of January 2023, Instagram has more than two billion monthly active users and ranks among the countries where the app has gained popularity, alongside Turkey, Brazil, and Indonesia (Statista, 2023). Instagram is the fourth most widely used application globally and the second most beloved. The average monthly time spent on Instagram is 12 hours. However, in Turkey, the average time spent is 21 hours and 40 minutes, making Turkey the top-ranked country in this regard (We Are Social, 2023). It aims to provide in-depth information about how the differences between generations are revealed on Instagram. It seems possible to address online privacy here, initially.

Older individuals believe they have a lower risk of privacy violations than younger people. Users display comparative optimism when comparing themselves to younger individuals who use the internet more, perceiving them to be at higher risk. However, they show comparative pessimism when comparing themselves to older individuals (Baek et al., 2014). Similarly, young people do not believe that their privacy protection behaviors will be very effective because of their belief that others and companies can easily access their online information (Moreno et al., 2014). The studies show that people exhibit "comparative optimism" in online privacy concerns, believing their own privacy is secure while perceiving others as more vulnerable. Moreover, young adults think their privacy protection efforts may be futile due to the belief that others can access their online information. The other dimension of the issue is also related to self-esteem.

Low self-esteem is one of the important indicators of problematic smartphone use. The findings generally highlight the importance of addressing self-esteem in the prevention and treatment of problematic smartphone use (Casale et al., 2022). In another study it was revealed that individuals with normal to high self-esteem tend to use Facebook less and face fewer problems related to its usage, compared to those with low self-esteem. High self-esteem was linked to less problematic use of Facebook. Individuals with high self-esteem showed reduced desire for excessive Facebook use and were less affected when prohibited from using it (Abrar-ul-Hassan & Safdar, 2022). Both studies explore the relationship between self-esteem and problematic technology use, focusing on smartphones and Facebook, respectively. The first study analyzing various research on self-esteem and problematic smartphone use, indicating that low self-esteem is linked to problematic smartphone usage and emphasizing the importance of addressing self-esteem in prevention and treatment. The second study on Facebook usage shows that higher self-esteem is associated with less problematic use, with individuals having high self-esteem using Facebook less and facing fewer problems related to its usage.

When it comes to Instagram, it seems possible to establish a relationship between the self-esteem of adolescent girls and Instagram. Participants with average self-esteem shared the most provocative photos on Instagram. Participants with high self-esteem, on the other hand, shared more humorous and filtered photos compared to participants with low self-esteem (Hill & Denman, 2016).Users who spend a significant amount of time preparing their Instagram posts have been found to have narcissistic traits and high self-esteem when compared to individuals who show less interest in their content. A direct relationship between narcissism and self-esteem was discovered (Dinkha et al., 2022). In a world where social media and Instagram are intertwined with daily life, the way users perceive and interact with these platforms is shaped by a range of personal and societal factors.

This article examines how user characteristics such as self-esteem and concerns about online privacy affect attitudes of Instagram users from different generations. This study aims to understand how different generations perceive and interact with the platform and examine it in a broader context. This study illuminates the complex interaction between personal traits and societal influences that shape Instagram usage patterns of generations X, Y, and Z. While examining the impact of self-esteem in the article, it is also conceptualized as a potential catalyst for increased participation in Instagram or a barrier, depending on the user's level of self-esteem. Along with Instagram's increasing concerns about online privacy, their effects on attitudes towards the platform are addressed. By comparing these factors on the axis of generations X, Y, and Z, the article is expected to take on an important source role for Instagram. The aim is to fill the gap in the literature in line with these steps in the article.

Our study concludes by reflecting on the implications of the findings and potential future research directions. Throughout the article, it is among the goals to contribute to the understanding of the psychological effects of Instagram on different generations and to provide valuable information to researchers, policymakers, and social media practitioners. For the sake of understanding all of this, it is possible to express the purpose of the article as follows: Investigating both direct and mediation effects of self-esteem, online identity-Instagram privacy concern level on attitudes of social generation differences in Turkey towards Instagram. The hypotheses about this problem are in Table 1:

Table 1. Research Hypotheses

Hypotheses	Methods	Results
Ha_1: Social generation differences of individuals in Turkey directly affect their attitudes towards Instagram.	Ordinary Least Squares Regression	Supported
Ha_2: Self-esteem is a mediator variable for the effect of social generation differences of individuals in Turkey on Instagram attitudes.	Mediation Analysis Based on OLS	Supported
Ha_3: Online identity-Instagram privacy concern is a	Mediation Analysis Based on OLS	Supported

mediator variable for the effect of social generation differences of individuals in Turkey on Instagram attitudes.		
Ha_4: Self-esteem and online identity-Instagram privacy concern are co-mediation variables for the effect of social generation differences towards Instagram attitudes of individuals in Turkey.	Mediation Analysis Based on OLS	Not support

The most important contribution of the paper to the literature is to highlight the factors that have an effect on differentiation about attitudes towards Instagram by social generations and the relationship of this effect between self-esteem and online identity-Instagram privacy concern levels. Unfortunately, the findings in this study are limited to Turkey because they cannot be generalized to the whole world. However, the Instagram experience in Turkey has an important share in the world.

According to we are social's February 2022 data, 62.5% of the world's population uses the internet. In Turkey, this rate is 82%. The rate of active social media users in Turkey corresponds to 80.8% of the population. Compared to the previous year, internet users increased by 5.9% and active social media users increased by 14.8%. The time spent by internet users on the internet in Turkey is 8 hours per day. Instagram.com is the 5th most visited website in the whole of 2021. In addition, Instagram is the most used social media platform after WhatsApp with a rate of 92.5% in October. At the same time, Instagram is the most popular social media platform with 44.9%. WhatsApp, which takes the second place, has a rate of only 19.8%. Finally, Instagram takes the first place with 20.2 hours when looking at the monthly time spent on social media applications in Turkey (wearesocial, 2022). In terms of users, Instagram is one of the most popular applications in Turkey, as the data here shows. For these kinds of reasons, Instagram was preferred as the application field of the study. Moreover, it will help many disciplines and sectors to estimate the effects of demographic characteristics, self-esteem levels, and online identity-Instagram privacy concern levels on attitudes towards Instagram in Turkey.

In the first part of the article, the theoretical basis of the research is formed by making use of the existing literature and studies. In this section, concepts are discussed along with the theoretical background of the study. In the following section, the relationship between generations, self-esteem and online-Instagram privacy concerns are examined. Then, the sample set, data collection, and analysis, along with all the scales, are explained individually. The presentation of the findings is directly addressed in the fourth section of the study. It focuses on how self-esteem and online privacy concerns directly affect users' perceptions and behaviors on Instagram. Relationships have been established between self-esteem and different variables as well.

1. Theoretical Framework, Concepts and Variables

For the first time, classifications of different age groups in the United States have been accepted as a generalizable generation

classification on a global scale (Schewe & Meredith, 2004). Generational differences are preferred to categorize the basic characteristics and behavior patterns of age groups.

Great crises and moments of transformation in societies affect the outlook and preferences of individuals and certain age groups. Therefore, generations may have certain common value judgments and common behaviors, as well as differ from other generations (Chen, 2010.; Kowske et al., 2010). Although individuals' expectations and perspectives on life differ, it is noticed that people born in a certain period time have much closer expectations and perspectives. Generation studies and the concept are also used to emphasize these similarities and explore emerging interests (Adıgüzel et al., 2014; Tutgun-Ünal & Deniz, 2020).

Generation X includes those born between 1965 and 1980, while generation Y includes those born between 1981 and 1999 (Castellano, 2014). Although it is known that the X generation spent a childhood away from technological developments, their ability to adapt and self-confidence is high. Generation Y has witnessed the birth of the internet and many technological developments. Although they have high social skills and give importance to personal satisfaction. Finally, Generation Z was born between 1997 and 2012. It is the first generation to grow up with digital technologies. They have been using digital technologies since childhood. They use digital technologies and social media both very well and a lot.

Generation X generally spent time with television, while generation Y spent time with computers. Generation Z, on the other hand, uses digital media very intensively and spends most of their time in digital media (Ardiç & Altun, 2017; Tutgun-Ünal & Deniz, 2020). It seems possible to establish a relationship between the common qualities of generations and self-esteem. Self-esteem encompasses a person's self-worth and subjective evaluation. Self-esteem is the sum of a person's thoughts and feelings about himself. People with high self-esteem are confident and have a very positive image. People with low self-esteem generally have negative feelings and thoughts about themselves and have low self-confidence.

Self-esteem both undergoes changes with age and is directly associated with individuals' mental health. Low self-esteem is linked to depression across different age groups. Low self-esteem contributes to predicting subsequent levels of depression. Self-esteem stability is generally low in childhood, tends to be high during adolescence and young adulthood, and decreases in midlife and old age. This trend is consistent across various factors such as gender, ethnic group, self-esteem scale, nationality, and year of publication (Trzesniewski et al., 2003). At this stage, it is particularly important to make sense of the changes in self-esteem among young people over time.

A meta-analytic review shows that college students' self-esteem increased significantly from 1968 to 1994, measured using the Rosenberg Self-Esteem Scale (RSE). Children's scores on the Coopersmith Self-Esteem Inventory (SEI) declined from 1965 to 1979 and then increased from 1980 to 1993. Age differences were observed, with SEI scores decreasing slightly during the transition from elementary school to junior high and then rising progressively through high school and college (Twenge & Campbell, 2001).

One of the effects of social media on individuals' self-esteem is the creation of social comparisons. Intensive use of social media, especially Facebook, negatively impacts a person's self-esteem. Participants who frequently use Facebook and are exposed to upward social comparisons have significantly lower self-esteem (Vogel et al., 2014). The position of young women is also examined within these comparisons. Social media not

only increases young women's concerns about their bodies but also negatively impacts their self-esteem. The interactive nature of social media, with features like strong peer presence and the exchange of visual images, can impact body image concerns through negative social comparisons, transportation, and peer normative processes (Perloff, 2014).

These studies offer valuable insights into how self-esteem may vary across different generations and age groups, contributing to our understanding of generational differences and their implications for psychological well-being. The summarized studies collectively highlight the intricate relationship between self-esteem, depression, and generational differences. Longitudinal research reveals that low self-esteem predicts subsequent depression levels, supporting the vulnerability model. Across different age groups, self-esteem shows significant continuity over time, with developmental trends varying throughout life stages. Social media plays a role in self-esteem, as frequent Facebook usage and exposure to upward social comparisons relate to lower self-esteem. Moreover, social media's influence extends to young women's body image concerns, with interactive features contributing to body image perceptions and self-esteem outcomes. Overall, these studies offer insights into the complexities of self-esteem, its implications on mental health, and its interaction with generational and social media influences. Defining and understanding social media serve as a crucial foundation for all these discussions.

Social media is an internet-based tool where the user can create, modify, collaborate, and interact with content easily. There are different services and applications in social media (Boyd, 2007; Kaplan & Haenlein, 2010). In these applications, users are involved in the process by sharing different types of media content after the account creation phase. Facebook, Twitter, Instagram and TikTok are some of the largest social media applications worldwide. Social media began to be included in people's lives in the late 1990s and early 2000s, gaining popularity with applications such as Six Degrees in 1997, Friendster in 2002, MySpace (2003) and Facebook (2004). All kinds of online sharing, interaction and comments can be included in this platform. Due to the high user interest and interaction in digital media and social media, a very active and intense process is experienced (Ansons et al., 2010; Weinberg, 2009).The most important element that distinguishes social media from traditional media is that the user can create and comment on the content they want. The most basic feature that stands out in social media is that new connections can be easily established in every sense (Ellison et al., 2007; Scott, 2010). If it is not forgotten that the way of use and effect of social media has changed with technological developments, it is noticed that it has positive and negative aspects that will directly affect the individual and social life of people. In this context, some issues distinguish Instagram from other social media applications and highlight its relationship with online privacy.

Among the most important effects of Instagram is that people show themselves by competing to present their selves and observe others. This situation directly transforms the privacy perceptions of users and people (Akçay- Bekiroğlu & Hülür, 2016). Instagram has a visual-oriented structure and includes a lot of visual content. Users can share and consume all kinds of content with filtering and editing tools. By separating from other text-based platforms, Instagram brings the user experience to the fore. With its simple structure and design, it both facilitates use and enables people to discover other users with the discover section.

Instagram is a platform that offers its users the opportunity to create their profiles and share photos and videos simultaneously. The most important thing that distinguishes Instagram from other applications is that the image and

visual elements come to the fore. The photo and video sharing opportunity that Instagram offers to its users allows the formation of a narrative language. Therefore, integrity can be formed between the shares (Millington, 2015). Due to all these visual content sharing, data, privacy policies and settings play a huge role in the relationship between Instagram and online privacy. Like other social media applications, Instagram collects and processes personal data to personalize the user experience. Therefore, this situation raises online privacy issues in many circumstances. The relationship between Instagram and online privacy has many dimensions.

The primary factor leading Facebook users to leave the platform and engage in "virtual identity suicide" is privacy concern (Stieger et al., 2013). However, users' privacy concerns do not always lead to the development of protective behaviors against privacy violations. Instead, information plays a critical role in determining users' privacy protection behaviors. Information influences both technical and social practices related to safeguarding privacy. Understanding psychological factors will facilitate better positioning and promoting online privacy protection behaviors (Park et al., 2012). Midlife online privacy becomes apparent through users' practices of using technology when they feel vulnerable. The reasons influencing privacy practices in midlife consist of the intersection of personal factors, technological environments, and social context (Quinn, 2014).

Studies show that individual and social differences directly affect privacy, particularly online privacy. Research on Facebook users who quit the platform indicates that privacy concerns significantly influence online behaviors. Other studies highlight the role of emotions, cognition, and information in shaping users' privacy protection behaviors online. Additionally, an ecological approach to privacy management during midlife reveals the interplay of personal, technological, and social factors in online privacy practices. It is necessary to move on to a more detailed discussion around the variables of the article which are generations, self-esteem, and online-privacy.

According to the level of self-esteem, social media addiction acts in a negative direction. In this context, as the participants' self-esteem levels decrease, their social media addictions also increase (Balcı et al., 2019). However, it is observed that sometimes social media use may not impact self-esteem for most users, and a small minority may experience either positive or negative effects. When individual differences are considered, it is noticed that the relationship between social media use and self-esteem may be dependent on personal characteristics and usage habits. The cultural context is necessary for a global understanding of the impact of social media on self-esteem (Cingel et al., 2022).

Social media has negative effects on people at different levels. Social networking sites reduce and negatively affect people's self-esteem since they offer more opportunities to compare themselves with others (Chen & Lee, 2013). The increase in the opportunity to compare can cause people to lose their self-esteem and see themselves as unsuccessful in general. The field of socialization is also changing with the increase of online platforms and social media.

Because self-esteem depends on the relationship established with friends, people now present themselves in online environments. Online self-presentation can show the relationship that a person establishes with his/her friends as well as the relationships s/he establishes with others (Øverup et al., 2015). As the spaces of the relationship with others change, different problems come to the fore.

Although there are research on likes or problematic uses on the Internet, the main issue is personal factors. In a study conducted

with meta-analysis, it was determined that there is a negative relationship between self-esteem and problematic Facebook use. (Marino et al., 2018). Similar to the negative relationship here, the same result was reached in terms of internet addiction for adolescents(Aydın & Sarı, 2011). Self-esteem is associated with problematic Internet use in teenagers and adolescents. There is a negative relationship between them, especially as seen in social media addiction (Groth et al., 2017; Mei et al., 2016; Niemz et al., 2005). As different studies have shown, it has been determined that young people with low self-esteem are found and affected more in online environments. However, some studies have a more positive point of view on this issue.

The increase in internet use increases both social support and self-esteem (Shaw & Gant, 2002). Using the internet can lead to positive results as it increases contact and contact points with different people. However, self-esteem will not be evaluated alone in this study and considered together with different variables such as online privacy.

As people's thoughts about privacy rights increase, online privacy concerns also increase (Bergström, 2015). Social networking sites cause their users to face far worse privacy conditions than many online situations. For this reason, users' privacy concerns increase instead of decreasing (Blank et al., 2018). It is necessary to look at the situation of young people when it comes to online privacy.

High school students adopt strategies such as hiding contact information, limiting profile access, and restricting friend requests from strangers to protect online privacy. Despite continuing to share personal information online, social media platform users continue to employ privacy protection strategies (Young & Quan-Haase, 2013). Socialization agents such as parents and peers influence teenagers' privacy concerns on social networking sites. The levels of privacy concerns and privacy protection behaviors of young Facebook users in the USA are determined by both their social media usage and their parents' privacy concerns (Feng & Xie, 2014). The common idea of the mentioned studies is that online privacy and privacy concerns have developed with the digital technologies. Various factors such as individual and social differences, emotions, information, age, and socialization agents are highlighted in these studies to show how they affect people's attitudes and behaviors regarding the protection of online privacy. Overall, it is emphasized that online privacy is a multifaceted issue influenced by a range of factors, and understanding these influences can help promote better online protection behaviors and practices.

This situation has become a social problem rather than a personal one. Online privacy is not just a problem for individuals or users. On the contrary, online privacy is a societal concern today (Baek et al., 2014) Metin girmek için buraya tıklayın veya dokunun.. Baek Among the social problems of online privacy, the situations of individuals such as education, income, gender, and age are also of distinctive importance.

Demographic factors such as gender and age are important in understanding the risks and concerns that arise when using digital technologies. For example, gender has been proven in many studies to be related to how privacy settings are used (Lewis et al., 2008). Like many studies, small and significant age differences were found in this study (Hoofnagle et al., 2012; Marwick & Boyd, 2014; Taddicken, 2014). Therefore, gender and age differences cause differences in the use of digital technologies, especially in terms of privacy.

Each person's privacy has limits, and the extent to which these limits will be shared with other people is decided within certain social situations (Petronio et al., 2021).

Contextual factors and privacy concerns influence cultural differences in users' privacy decisions on social networking sites. These factors have led to different outcomes in privacy decisions, such as friend request decisions, information disclosure, and perceived risk, across various countries. The impact of context and privacy concerns varies between individualistic and collectivist countries (Li et al., 2022). The article by Cheah et al. (2022) revisits consumer behavior in omnichannel retailing and examines whether privacy concerns are still relevant in this context. The findings reveal that consumer perception of channel integration, consumer empowerment, and trust significantly influence patronage intention in omnichannel retailing. When privacy concerns are low, the effects of channel integration and consumer empowerment on trust are stronger. The core idea is to investigate cultural differences and privacy concerns' impact on users' privacy decisions on social networking sites. The research highlights the importance of customized privacy designs and recommendations on social networking sites based on cultural differences. The second study emphasizes customized privacy designs and the relevance of privacy concerns in consumer behavior in omnichannel retailing. Therefore, everyone's privacy limits are different. Performing this study along the four main hypothesis axes, as indicated by the theoretical discussion, and demonstrated by the concepts and variables, is crucial. This is because the study analyzes how generational differences impact attitudes toward Instagram based on variables such as self-esteem and online privacy concerns. In the upcoming section, the selection of scales and sample set, the limitations of the study, and the handling of data will be discussed to enable the realization of the analysis.

2. The Role of Scales, Sample, and Analysis

2.1. Sample Characteristics and Limitations

sample of this research consists of individuals from X, Y, and Z social generations having at least an associate degree education and living in Turkey. Although the first data set consisted of 567 people, individuals who stated that they never log in to Instagram were excluded and the extreme values were also excluded. So, the total number of individuals in the sample is 482. Convenience sampling was used. Despite this, representativeness is not poor except for education and income level variables. Since social generational differences are important factors whose effect on the research problem is questioned, percents of individuals in the X, Y, and Z generation are close to each other in the sample. Quotas were set for three social generations. However, since there were respondents who participated in the survey but were not included in the sample (85 out of 567 individuals were excluded because they did not have Instagram accounts), complete equality could not be achieved. However, the proportions were close to each other. Individuals who are in the labour force or not and earning or not earning their own income could be represented in the sample. Likewise, individuals from all income groups had a chance to be represented in the sample. 54.77% of the respondents are male. 34.02% are X generation, 32.16% Y and 33.82% Z generation. 27.80% of them are two-year college graduates, 52.49% are bachelor graduates, 19.71% are postgraduate degrees. 56.22% of is not in the labour force. 70.75% of earn their own income.

There are some limitations arising from these sample characteristics: The generalization of the effects is objectionable, as the relative inadequacy in the distribution of individuals according to some demographic characteristics (education, income) leads to low-medium reliability of the results regarding

their effects. For the same reason, none of the demographic variables were included in the analysis as a covariate in the regression models, so their effects on the independent variable could not be statistically controlled. A significant proportion of respondents said they spend between 1 and 3 hours on Instagram (48.96%). One group that shouldn't be ignored said they spent less than an hour (37.97%). Few reported spending more than four hours (13.07%). In this respect, the results of this research can be generalized especially for those who spend less than 1 hour on Instagram and those who spend a maximum of three hours.

2.2. Data Collection and Analysis

Permission has been obtained from the Istanbul University Social and Human Sciences Research Ethics Committee for the data collection processes (File: 2021/140). Data collection was carried out in June 2021. Individuals answered demographic questions and scales via "docs.google".

A mediation analysis that bases ordinary least square has been run to understand the direct effects and interactions that affect individuals' attitudes towards Instagram. This analysis has been run via the Process Macro 3.5 plugin developed by Hayes (2018). The effects of social generation difference, self-esteem and online identity-Instagram privacy concern levels on Instagram attitudes have been examined within the same regression model. The model has been drawn with the help of Hayes' (2018) mediation analysis models. In addition, the contributions of Gürbüz (2019) based on the modern approach to the interpretation of the mediation effect have also been utilized. Mediation refers to the situation in which the existing relationship between the predictor and the outcome variable is established with a third and new variable. Perfect mediation occurs if c is zero. The relationship between the predictor and the result is also eliminated by including it in the intermediary model (Field, 2013, 408).

In this study, the assumption of linearity between the variables included in the regression model has been met. The relationship between self-esteem and attitudes towards Instagram is at least approximately linear ($F1(42,1) = 63.56$; $p<0.05$). The same is true for the relationship between online identity-Instagram privacy concerns and attitudes toward Instagram ($F2(51,1) = 31.78$; $p<0.05$). However, the problem of deviation from linearity has been detected in the linear relations between the outcome variable and the mediator variables ($F1(42.41) = 2.453$; $p<0.05$; $F2(51.50) = 1.868$). This may pose a threat to the significance of the interpretation of the regression coefficient. On the other hand, interpreting the confidence intervals obtained with the Bootstrap robust method will reduce this risk. After all, the relationship between variables is at least approximately linear.

To determine the self-esteem of the participants Rosenberg Self-Esteem scale has been preferred. The online identity-Instagram privacy concern scale, which we developed using other scales developed for similar purposes, has been used to determine the level of privacy concerns of the participants. The attitude scale towards Instagram has been developed by us by using other scales developed for similar purposes to examine attitudes towards Instagram. Reliability analyses have been run for all scales. Exploratory factor analyses have been performed for the Online Identity-Instagram Privacy Concern Scale and Scale of Attitude towards Instagram as they have been restructured for this paper. In addition, the literature on the validity and reliability studies of the scales, which were taken as a basis while developing the scales, are also included. Detailed explanations about the scales are given below.

2.3. The Rosenberg Self-Esteem Scale (RSE)

The Rosenberg Self-Esteem Scale was developed by Morris Rosenberg in 1963. The

RSE correlates significantly with Coopersmith Self-Esteem Inventory. In addition, the RSE correlates with measures of depression and anxiety. It was reported that the RSE Guttman scale coefficient of reproducibility of .92, indicates excellent internal consistency. Test-retest reliability over for 2 weeks reveals correlations of .85 and .88, indicating excellent stability (Ciarrochi & Bilich, 2006, 61). Reliability studies of the scale were conducted on 5024 high school students from the USA (Tukuş, 2010, 29).

The validity and reliability studies of the scale in Turkey were carried out on a high school sample group of 205 people (Çuhadaroğlu, 1986, 30). The scale has 54 items, measuring 12 sub-factors. The test-retest reliability of the scale was 0.89 (Çuhadaroğlu, 1986; Yılmaz, 2019, 50). The first 10 questions of the scale measure the self-esteem sub-factor. These 10 questions are divided into 6 groups: The questions numbered 1-2-3 in the 1st group; question 4 and 5 in the 2nd group; question 6 alone in group 3; question 7 alone in group 4; question 8 alone in group five and question 9 and question 10 in group 6. Each individual in the sample chooses the appropriate one from "Very True", "True", "Wrong" and "Very Wrong" for each question. If 2 of the 3 questions in Group I are answered with a scoring one, they get 1 point (2/3 =1 point). If 1 of the 2 questions in Group II are answered with a scoring one, they get 1 point (1/2 =1 point). If 1 of the 2 questions in Group VI are answered with a scoring one, they get 1 point (1/2 =1 point). Each answer that provides points in Group III, IV, V is 1 point (Baybek & Yavuz, 2005, 75). The lower total score obtained from the groups refers to the higher the individual's self-esteem. 0-1 points are considered as high self-esteem, 2-4 points are considered as medium self-esteem, 5-6 points are considered as low self-esteem (Yılmaz, 2019, 50).

Within the scope of this research, 10 questions in the self-esteem sub-dimension of the scale have been used to measure self-esteem. Since no changes were made in the content of the questions and the distribution of the questions to the groups, the validity analyses made in previous studies were considered sufficient and it is assumed that the scale is a valid tool for measuring self-esteem. McDonald's Omega model is used to figure out the internal consistency of the scale in this study. Internal consistency of the 10 questions of the scale is greater than 0.50 which is an acceptable value but smaller than 0.70 which is more suitable (ɯ=0. 68). Internal consistency of 6 groups formed by grouping 10 questions of the scale is 0.65. The RSE demonstrates a Guttman scale coefficient of reproducibility of 0.64, indicating enough but moderate internal consistency.

2.4. Online Identity and Instagram Privacy Concern Scale (OIIPC)

The "Online Privacy Concern Scale", which measures individuals' online privacy concern levels, is used to develop a new scale that is fit the purpose of this paper and considers the features of Instagram. The original Online Privacy Concern scale was developed by Buchanan et al. (2007). The original scale is the 16-item sub-dimension of the three-factor scale developed to measure the attitudes and behaviors of adult students regarding privacy. There is no reverse item in the original scale (Alakurt, 2017, 626). Alakurt adapted (2017) it to the culture of Turkey and tested its validity and reliability. Experts' opinions were sought in the studies in which the scale was adapted to the culture of Turkey (6 scientists and 2 students). A pilot study was conducted with a small sample of 40 individuals. Both English and Turkish versions were applied to this sample; two weeks later, the measurement was repeated. A positive, moderate (0.69) correlation was found between the two measurements. Confirmatory factor analysis and exploratory factor analysis were tested in two different samples. In the first confirmatory factor analysis (n=315), the structure of the

English version could not be verified, so the exploratory factor analysis was performed. A three-factor structure consisting of 14 items was obtained for the Turkish version of the Online Privacy Concern Scale. The lowest factor loading was 0.48; the highest factor loading was 0.83. To test the structure of the version adapted to the culture of Turkey, confirmatory factor analysis was conducted with a different sample of 215 individuals. Model fit indices indicated perfect fit. Factor loadings were between 0.54-0.85. According to the Cronbach Alpha coefficient, the scale was quite reliable (a=0.89) (Alakurt, 2017, 627-630). The adapted Turkish version had three factors and 14 items. Factor 1 was the sub-dimension that collected items measuring privacy concerns about e-mail use and called "e-mail use". Factor 2 was a sub-dimension that included items measuring privacy concerns that third parties may acquire personal information on the internet, and this sub-dimension was called "Online trust". Factor 3 was named "Online payment" because in this factor the items measuring privacy concerns during shopping with a credit card came together. There are no reverse items in the scale. It is scored on a five-point Likert scale. A high score indicates that the individual has high privacy concerns (Alakurt, 2017, 626-628). Briefly, online identity privacy concern expresses individuals' thoughts about protecting and preserving the confidentiality of their personal information and identities when engaging in online activities. Users may be worried about unauthorized access, data breaches, identity theft, or misuse of their information. Consequently, users take measures to protect their online identities and maintain privacy in the digital realm.

The items of the "e-mail use" sub-dimension in the Turkish version of the "Online Privacy Concern Scale" is restructured under the characteristics of the Instagram application for this paper. Items in other sub-dimensions are used as they were. After the change in the items of the sub-dimension, "e-mail usage" to explore the structure of whole components principal component analysis is conducted with varimax rotation. The Kaiser-Meyer-Olkin measure verified the sampling adequacy for the principal component analysis (KMO= 0.938, which is marvelous according to (Field, 2013). Bartlett's test result is significant so the correlations between variables (overall) are significantly different from zero (Chi2(91) = 5185.126; $p<0.05$). Two factors have eigenvalues over Kaiser's criterion of 1. One of the items which has close factor loading in both factors of the scale has been removed. After that, a second analysis has been run to obtain eigenvalues and rotated factor loadings for each component in the scale. Two factors have explained 69.98% of the total variance (factor 1 57.51%; factor 2 12.47%). The items that cluster on the same factor suggest that factor one represents the concern about online identity privacy and distrustfulness, and factor two represents the concern about Instagram post privacy and distrustfulness. The items in factor one (online identity privacy concern - OIPC) have factor loadings between 0.65-0.84. The items in factor two (Instagram privacy concern - IPC) have factor loadings between 0.68-0.87. 13 items on the scale suggest that it represents online identity and Instagram privacy concern.

Cronbach Alpha coefficient of the OIPC is 0.93 which is very high. The item, if removed, that would increase the internal consistency could not be found. IPC has also very high internal consistency which is 0.91. The item, if removed, that would increase the internal consistency could not be found. Inter-item correlations are found between 0.56 and 0.66. The internal consistency of the whole scale is quite high (0.94). The item, if removed, that would increase the internal consistency could not be found. Inter-item correlations are found between 0.30-0.81.

Based on the findings of the exploratory factor analysis, the second order structure of the

scale was statistically confirmed by Confirmatory Factor Analysis (Figure 1.).

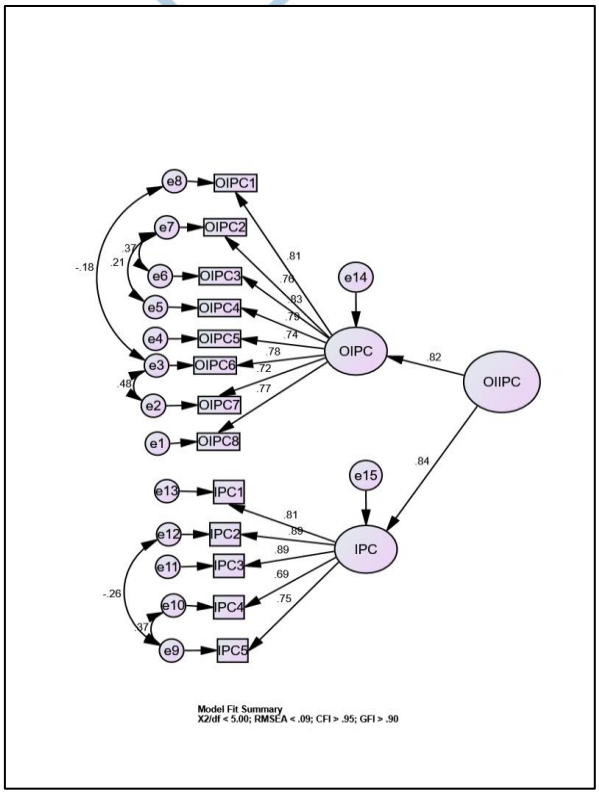

Figure 1. Confirmatory Factor Analysis of the OIIP Scale

CFI and GFI which are two of the model fit indices were at acceptable levels (CFI=.95; GFI=.92). Although X2/df and RMSEA' were within acceptable limits (X2/df= 4.89; RMSEA= .09), they were relatively high. According to the CFA findings based on the Maximum Likelihood estimation, the factor loadings of the eight items in the OIPC subscale were between .72-.83. The factor loadings of the items in the IPC sub-dimension were between .69-.84. The factor loading of the IPC subscale was .84 and the factor loading of the OIPC subscale was .82 (Figure 1.) CFA findings supported the two sub-dimensional and second order scale structure determined earlier by the EFA.

Items are answered by the individual with five-point Likert scoring. There are no reverse items. It consists of 13 items and two subscales. The lowest possible total score is 13 and the highest possible total score is 65. The higher the score means the higher the online identity and Instagram post concerns.

2.5. Scale of Attitude towards Instagram (ATI)

The words "social media" in the "Social Media Addiction Scale Adult Form", which is adapted to the culture by Şahin & Yağcı (2017), are changed to Turkey "Instagram". Şahin and Yağcı created a 78-item draft questionnaire. They benefited from the previous studies of Andreassen et al., 2015; Griffiths, 1999; Şahin & Yağci, 2017; Tutgun-Ünal & Deniz, 2020; Young, 1998 while creating the draft form. They carried out the content and construct validity and reliability studies on this draft. Thus, they developed the Social Media Addiction Scale Adult Form. Also, the item "I can't stop myself using social media to take part in humanitarian projects", has been changed to the item "I can't stop myself logging in Instagram to take part in digital events happening around me".

The Varimax rotation method has been used to rotate component loadings. According to Kaiser-Meyer-Olkin measure of sampling adequacy sample is sufficient for principal component factor analysis (KMO=0.93). Bartlett's test result is significant so the correlations between variables (overall) are significantly different from zero ($Chi^2(91) = 5824.016$; $p<0.05$). There were three factors with an eigen value greater than 1. But there were points of inflexion in the second factor and the third factor in the scatter plot. According to the results of principal components analysis, components clustered in more than one factor are determined. Starting from the component with the factor load closest to each other, these components are removed from the scale one by one. Finally, the item remaining in factor 3 alone has been removed from the scale, since a single item alone constituted factor 3 and the other items constituted factor 1 or 2. After all problematic items were removed from the scale, the remaining components form two

factors. Since the items clustered in factor 1 measure the social and emotional needs that lead individuals to Instagram, this subscale is called social emotional needs (SEN). Since the items clustered under factor 2 measure the individuals' ideas about the time spent on Instagram and its effects on life, this subscale is named time efficiency ideas (TEI). The factor loadings of the items in the social emotional needs subscale are between 0.51-0.83.

The scale structure revealed by the EFA was tested by CFA as well. Maximum Likelihood was preferred as the estimation. Although X2/df and RMSEA were borderline, they were within the acceptable range (X2/df= 4.98; RMSEA=.08). Similarly, CFI and GFI were within the acceptable range (CFI= .92; GFI= .89). The goodness-of-fit indices indicated that the sample was suitable for confirmatory factor analysis and the model was fit.

The factor loadings of the SEN subscale items were between .68-.87, while the factor loadings of the TEI subscale items were between .67-.81. The factor loading of the SEN sub-dimension in the ATI scale was .96, while the TEI factor loading was .92 (Figure 2).

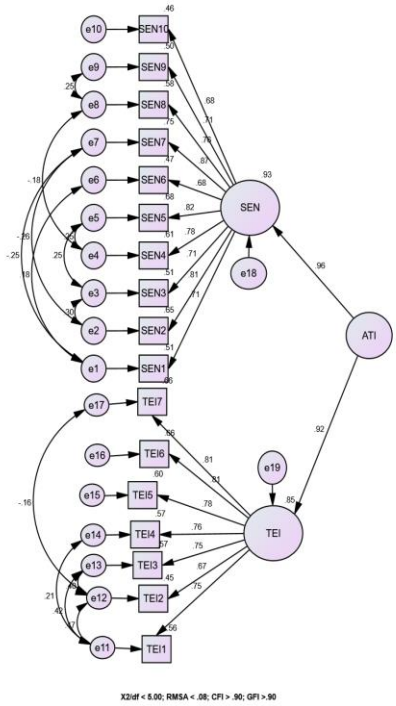

Figure 2. Confirmatory Factor Analysis of the ATI Scale

Considering the Cronbach's Alpha coefficient, the internal consistency of this subscale is very high (a=0.91). Inter-item correlations are between 0.32-0.51. If any item is deleted from the subscale, the Cronbach Alpha coefficient will decrease. The factor loadings of the items in the time-efficiency ideas subscale are between 0.59-0.86. Considering the Cronbach's Alpha coefficient, the internal consistency of this subscale is very high (a=0.89). Inter-item correlations are between 0.37-0.54. If any item is deleted from the subscale, the Cronbach Alpha coefficient will decrease. Regardless of the clusters in the subscales, the internal consistency of all items together is very high (a=0.94). The lowest inter-item correlation is below 0.30 (r=0.19). However, the highest inter-item correlation is acceptable (r=0.46). If any item is deleted from the scale, the Cronbach Alpha coefficient decreases. When the results of the principal components analysis and Cronbach Alpha internal consistency model are evaluated together, it is determined that the scale of attitudes towards Instagram is valid and reliable. Individuals score items on the 5-point Likert scale (1= strongly disagree, 5= strongly

agree). There are no reverse items in the scale. As the scores of individuals increase, the tendency to Instagram and the tendency to spend time on Instagram increases with the effect of social emotional factors.

3. Findings

3.1. The Relationship between Generation, Self-Esteem, and Online-Instagram Privacy Concern

When questioning a mediating effect, the outcome variable, the antecedent variable(s), and the mediating variable(s) are analyzed in the same model. With mediation analysis, not only the effect of the antecedent variable(s) on the outcome variable is calculated, but also the effect of the antecedents on the mediating variables. The direct effect of social generation on self-esteem and online-Instagram privacy concern and the direct effect of self-esteem on privacy concern was examined with this title.

Table 2. Direct Effects on Self-esteem and Online-Instagram Privacy Concern

Outcome Variable	Antecedent	b	e	p	95% CI
self-esteem[1]	GEN X to Y[a]	0.3768	0.083	0.00*	0.21; 0.54
	GEN X to Z[a]	0.3193	0.082	0.0001*	0.16; 0.48
	GEN Y to Z[b]	-.0575	.0836	0.49	-0.22; 0.11
online-Instagram privacy concern[2]	GEN X to Y[c]	-1.6299	1.432	0.25	-4.44; 1.18
	GEN X to Z[c]	-4.3916	1.406	0.0019*	-7.15; -1.62
	GEN Y to Z[d]	-2.7617	1.405	0.0499	-5.52; -0.001
	SELF-ESTEEM[c]	1.4654	0.768	0.06	-0.04; 2.97
Constant	Constant-a	0.6662	0.058	0.00*	0.55; 0.78
	Constant-b	1.0430	0.60	0.00*	0.92;1.16
	Constant-c	45.4629	1.103	0.00*	43.29;47.63
	Constant-d	43.8330	1.285	0.00*	41.31;46.36
Model	Model-1	F(2,479)= 12.0015; R^2= 0.0477; p< 0.01.			
	Model-2	F(3,478)= 4.0647; R^2= 0.0249; p< 0.01			
*p<0.01; **p<0.05					

The mean difference in self-esteem scores between generations X and Y is statistically significant (b=0.3768; p<0.01). While the mean score of the X generation participants is 0.6662, the Y generation participants' score is 0.3768 points higher than this. Accordingly, at least on an average basis, the self-esteem of the Y generation is lower than that of the X generation. Likewise, it is thought that the self-esteem of the social generation Z is lower than the social generation X on an average basis, as the mean of the self-esteem scale of the Z generation participants was found to be 0.3193 points higher than the mean of the X generation participants, and this difference is statistically significant (b=0.3193; p<0.01). Therefore, the direct effect of social generation is statistically significant on the change in self-esteem of respondents. On the other hand, the self-esteem scale score of the Z generation participants was -0.0575 points lower than the Y generation participants. It was determined that this mathematical difference was not statistically significant (b=-0.0575; se=0.084; p>0.05). Therefore, it can be said that the difference between the self-esteem level of the Y generation and the self-level of the Z generation is close to 0 when the statistical findings are considered. It indicates that there are no differences in self-esteem levels between these two generations (Table 2).

Age-related variations were observed, with self-esteem slightly decreasing during the transition to junior high and then progressively rising in high school and college (Twenge & Campbell, 2001). Self-esteem tends to remain stable over time, with fluctuations during different life stages. Especially low self-esteem predicts later depression in both men and women (Orth et al., 2008; Trzesniewski et al., 2003). As expressed in these studies, there is intergenerational variation in self-esteem, which also impacts generational attitudes. Even if self-esteem remains constant, it plays a significant role in individuals' attitudes and their interactions with life. Particularly, individuals with low self-esteem may be more open to online environments. In our study, although no significant difference in self-esteem was found between Generation Y and Generation Z, differences were observed when compared to Generation X.

Online Identity-Instagram Privacy Concern scale score levels were compared according to the social generations of the participants within the same regression model. While exploring the effect of social generation differences on the level of online identity-Instagram privacy concern, the level of self-

esteem was also included in the model and the mathematical effect of the level of self-esteem has been kept under control. The mathematical difference between the mean scores of the generation X and the Y generation was 1.6299. However, statistical significance could not be determined for that (b=-1.6299; se=1.432; p>0.05). Therefore, it was difficult to say statistically that the Online Identity-Instagram Privacy Concern levels of the X generation respondents differ from the levels of the Y generation respondents. However, this situation changes when the generation X respondents were compared to the generation Z respondents. The mean score of the Online Identity-Instagram Privacy Concern scale of X generation participants was 45.4629, while the Z generation participants' score was 4.3916 points lower than this. The difference was statistically significant. In that case the mean of online identity-Instagram privacy concern of generation Y was statistically significantly lower than the mean of generation X (Table 2).

The online identity-Instagram privacy concern levels of the Y generation respondents and the Z generation respondents were also examined. Similarly, the difference between the online identity-Instagram privacy concern scores of the respondents of these two social generations was statistically significant (b=-2.7617; p<0.05). While the mean score of the Y generation respondents was 43.8330, the Z generation mean score was 2.7617 points lower, so generation Z participants' online identity-Instagram privacy concern was lower than that of generation Y participants. In addition, the difference created by the social generation at the level of online identity-Instagram privacy concerns was taken under control and the direct effect of the self-esteem level of the participants was examined. There was no statistical evidence that the change in the self-esteem level of the participants had been explained by the change in the level of online identity-Instagram privacy concern (b=1.4654; p>0.05). This finding suggests that self-esteem levels are not a good predictor of participants' online identity-Instagram privacy concerns (Table 2). However, such a relationship has been established in the literature.

Those with average self-esteem share the most provocative photos Instagram, while those with high self-esteem share more humorous and filtered content, in contrast to low self-esteem participants (Hill & Denman, 2016). Users investing significant time in their Instagram posts tend to have narcissistic traits and high self-esteem compared to those less focused on their content, revealing a direct link between narcissism and self-esteem (Dinkha et al., 2022). Therefore, individuals with low self-esteem tend to disregard privacy concerns and engage in numerous posts while actively using Instagram.

3.2. Direct Predictors Mediating Effects for Instagram Attitudes towards

A parallel multiple mediator model was conducted to understand mediating effects of self-esteem and online identity and Instagram privacy concern levels on the attitudes of different generations towards Instagram. To explore indirect effects via mediators resampling with 10,000 bootstrap samples by 95% confidence interval has been performed. In addition, the direct effect of social generational differences on attitudes towards Instagram was analyzed in the same model. Moreover, the direct effect of self-esteem and online identity-Instagram privacy concerns on attitudes toward Instagram was considered.

There is a significant link between low self-esteem and problematic smartphone use. This suggests that addressing self-esteem is important in preventing and treating smartphone addiction (Casale et al., 2022). Higher self-esteem is linked to less problematic Facebook use. Those with normal to high self-esteem use Facebook less and face fewer issues with it than those with low self-esteem (Abrar-ul-Hassan & Safdar, 2022; Moreno et al., 2014). Similar findings exist for internet addiction in adolescents (Aydın & Sarı, 2011).

Self-esteem is linked to social media addiction, with lower self-esteem associated with higher addiction. While it's known that social media directly affects self-esteem, it's also important to consider certain personal and cultural influences (Balcı et al., 2019; Cingel et al., 2022). Low self-esteem is associated with problematic internet use, especially in the context of social media addiction (Groth et al., 2017; Mei et al., 2016; Niemz et al., 2005). Multiple studies highlight that young individuals with low self-esteem are more susceptible to online issues. Individuals' attitudes towards the internet and Instagram are directly influenced by their self-esteem and generational factors.

Table 3. Direct Effects of Antecedents and Mediators on Instagram Attitude

Antecedents	variables	coeff	se	p	%95CI
	X to Y[a]	5.7873	1.553	0.0002*	2.74; 8.84
	X to Z[a]	6.4817	1.538	0.00*	3.46; 9.50
	Y to Z[b]	0.6944	1.528	0.64	-2.31; 3.70
Mediators	S. Esteem [a]	5.2569	0.835	0.00*	3.62; 6.89
	P. Concern [a]	0.2868	0.049	0.00*	0.19; 0.38
Constant	**Constant-a**	15.8615	2.549	0.00	10.85; 20.87
	Constant-b	21.6487	2.579	0.00	16.58; 26.72
$F(4,477)= 27.7702$; $R^2 = 0.1889$; $p< 0.05$ Number of bootstrap samples for percentile bootstrap confidence = 10.000 *p<0.01; **p<0.05					

The table shows direct effects, without any interaction of antecedents and mediators on the Instagram attitude of respondents. These direct effects significantly explained 18.89% of the variance (R2= 0.1889; p<0.01). While the direct effects of self-esteem and online identity and Instagram privacy concern level on Instagram attitude were under control, the social generation had a significant effect on Instagram attitude (F(4,477)= 27.77; p<0.05). The average score of the Instagram attitude of the respondents in the X generation ($\bar{x}$=15.8615) was significantly different from the averages of the Y and Z generations. Y generation's attitude average was higher (b= 5.7873; p<0.01) than X one. Similarly, the Z generation's attitude average was higher (b=6.4817; p<0,01) than X one. Unlike this, the mean scores of the Y and Z generations did not differ statistically significantly. (Y mean= 21.6487; $\bar{x}$= 0.6944; p>0.05) (Table 3).

While the effects of social generation and online privacy concerns were under control, the direct effect of self-esteem level on Instagram attitude was statistically significant (F (4.477) = 27.77; p<0.05). There was sufficient statistical evidence that the change in self-esteem scores predicted their attitudes toward Instagram (b=5.2569; p<0.05). It was understood that a one-point increase in the self-esteem score of the participants caused an increase of 5.2569 points in the attitude score towards Instagram. According to this finding, as the participants' self-esteem scores decrease, their attitude score toward Instagram increases. This may indicate that the decrease in the self-esteem of the participants may cause an increase in positive attitudes toward Instagram (Table 3).

By keeping the other variables in the model constant, the direct effect of the online identity-Instagram privacy concern score was focused on, and this effect was found to be statistically significant (b=0.2868; p<0.05). A one-point increase in the online identity-Instagram privacy concern scores of the participants caused an increase of 0.2868 points in their attitude scores towards Instagram (Table 3).

Table 4. Mediation Effect of Self-Esteem and Online-Instagram Privacy Concern by Generation on Attitude

Antecedent	Regression Path	b	e	95% CI
GEN X to Y[a]	→ S. Esteem → Attitude	1.9809	0.597	0.96; 3.25*
	→ P. Concern → Attitude	-0.4675	0.439	-1.36; 0.38
	→ S. Esteem → P. Concern→ Attitude	0.1584	0.103	-0.01; 0.39
GEN X to Z[a]	→ S. Esteem → Attitude	1.6785	0.513	0.80; 2.80*
	→ P. Concern → Attitude	-1.2596	0.464	-2.24; -0.44*
	→ S. Esteem →P. Concern→ Attitude	0.1342	0.088	-0.01; 0.33
GEN Y to Z[b]	→ S. Esteem → Attitude	-0.3023	0.5094	-1.31; 0.74
	→ P. Concern→ Attitude	-0.7921	0.450	-1.77; -0.001*
	→ S. Esteem → P. Concern→ Attitude	-0.0242	0.05	-0.14; 0.06
Constant	Constant-a	32.6829	1.142	30.44; 34.93*
	Constant-b	40.1419	1.1743	37.83; 42.45*
$F(2,479)= 13.3067$; $R^2= 0.0526$; $p<0.01$ Number of bootstrap samples for percentile bootstrap confidence = 10.000 *Statistically significant at 95% Confidence Interval				

The indirect effects that occurred because of their interactions were as important as the direct effects of the factors in the model on the attitudes of the respondents toward Instagram. The statistically significant change in the attitude scores of the respondents towards Instagram because of the interaction of generation and self-esteem proved the mediating effect of self-esteem in terms of the change in the attitudes of the respondents towards Instagram by social generation. The same was true for the mediating effect of the change in the online identity-Instagram privacy concern score ($F (2,479) = 13.3067$; $p<0.01$). These interactions explained 5.26% of the variance ($R2= 0.0526$; $p<0.01$).

Social generation and self-esteem scores of the respondents together predicted attitudes towards Instagram score statistically, for the score differences of generations X-Y and X-Z. Interaction suggested that when the X generation respondents are taken as reference, as the self-esteem scores of the Y generation respondents increased, the attitude score towards Instagram also increased (b= 1.9809; 95% CI=0.96,3.25). Compared to the X generation respondents, the lower the self-esteem of the Y generation respondents the more positive their attitude toward Instagram. The same condition applied to the attitude towards Instagram score difference between the X and Z generation respondents (b=1.6785; 95%CI=0.80,2.80). As the self-esteem decreased in the Z generation respondents, the positive attitude towards Instagram increased. It was stated above that the attitudes towards Instagram differed in terms of the X and Y generation participants without the influence of any other variable. This was also true for the participants in the X and Z generations. In addition, in terms of attitude scores towards Instagram, the difference between X and Y generations and the difference between Y and Z generations according to the self-esteem of the respondents were statistically significant. Therefore, for the social generation differences between X-Y and Y-Z, partial mediation effects of self-esteem were determined in the effect of social generation on the Instagram attitudes of the respondents. The mediating effect of self-esteem on the differentiation of Instagram attitudes of the respondents in social generations Y and Z could not be determined statistically (b=-0.3023; 95%CI= -1.31,0.74). When the respondents in social generations Y and Z were compared, the interaction of self-esteem and social generation did not differentiate the attitude

score towards Instagram (Table 4).

Studies reveal that individual and social differences have a direct impact on online privacy, especially on platforms like Facebook and Instagram. Emotions, cognition, and information also shape users' online privacy behaviors (Park et al., 2012; Quinn, 2014; Stieger et al., 2013). When compared to the younger generation, older individuals exhibit comparative optimism, perceiving higher risk for the youth. Younger individuals think their privacy efforts are ineffective, assuming that others and companies can access their online information (Baek, Kim, and Bae, 2014; Moreno et al., 2014). As seen in these studies, attitudes toward online privacy and Instagram are influenced by generational factors. However, it doesn't seem feasible to attribute this solely to a single mediator variable. As suggested by the mentioned studies, various social and cultural factors should also be considered.

Since the statistical interaction of social generation and online identity-Instagram privacy concern level could not be determined for the attitude differences of X and Y generation respondents towards Instagram, the mediating effect of online identity-Instagram privacy concern level for these generations could not be accepted (b=-0.4675; 95%CI=-1.36,0.38). On the contrary, the interaction of social generation and online identity-Instagram privacy concern level was statistically significant for the difference between respondents of X and Z generations for attitudes towards Instagram (b=-1.2596; 95%CI=-2.23, -0.44). When the X generation respondents are taken as reference, while the level of online identity-Instagram privacy concern of level increasing, the positive attitudes of Z generation respondents decreased. The partial mediation effect of online identity-Instagram privacy concern can be mentioned because a difference in attitudes towards Instagram was detected between the X generation and the Z generation, even if it did not interact with any other variables (Table 4).

It was mentioned above that there were no differences in attitudes towards Instagram between the respondents in the Y and Z generations. But for the attitude difference of Y and Z generations, the interaction of social generation and online identity-Instagram privacy concern was statistically significant (b=-0.7921; 95%CI=-1.77; -0.001). For this reason, the mediation effect of the online identity-Instagram privacy concern in the formation of the attitude differences of the participants towards Instagram in the Z generation compared to the Y generation was confirmed (Table 4). Neither comparing X-Y generations (b= 0.1584; 95%CI=-0.01,0.39), nor comparing X-Z (b =0.1342; 95%CI=-010; 0.33), and Y-Z (b=-0.0242; 95%CI=-0.139,0.068), three-way interactions were found to be statistically significant (Table 4).

Conclusion

This study aims to question the direct effect of social generation differences on changing attitudes toward Instagram and the mediating effect of self-esteem and online identity-Instagram privacy concern levels. To find answers to the research questions, a sample of 482 people has been formed. In the study, the number of participants of the X, Y, and Z generations was kept close to each other. The ordinary least squares method has been used to determine the factors affecting attitudes towards Instagram and regression models of Hayes (2018) have been used to determine mediator variable effects.

It has been determined that the direct effect of social generation differences on attitudes towards Instagram creates a difference of 5.79 points (from X to Y generations), 6.48 points (from X to Z generations). In addition, it should be stated that the indirect effects of social generation differences from X to Y and X to Z are significant. The effect from the X generation to the Y generation on the attitude

towards Instagram is 1.98 points, and the effect from the X generation to the Z generation is 1.68 points via the mediation of self-esteem. Therefore, as the self-esteem of individuals decreases from generation X to generation Y, their positive attitudes toward Instagram tend to increase. This is also true for the Z generation compared to the X generation.

The effect of social generation differences has also been discovered for online identity-Instagram privacy concerns. This effect has been detected between the "X to Z" and "Y to Z" generations. Compared to the X, the Z generation has fewer online identity-Instagram privacy concern. Similarly, the online identity-Instagram privacy concerns level of the Z is lower than the Y generation. The effect of social generation from the generation Y to Z on the attitude towards Instagram is -0.79 via online identity-Instagram privacy concern. Although this mediation effect is relatively low, it is statistically significant. At last, the results and even limitations of the study can provide insight for new research problems and models to be developed.

The suitability of distinguishing between the X, Y, and Z generations for Turkey is an important issue that needs to be discussed. The definitions used here were developed in America, which differs from Turkey in many aspects. It is likely that both the characteristics of these generations have changed since the inception of the first-generation studies in America, and in Turkey, generational definitions may be approached differently. Although this article has followed general assumptions regarding generational differences, this topic can be subject to debate in future studies, and a technology-centered interpretation of generational classification can be considered.

This study's most significant contribution to the literature is its examination of the relationship between attitudes towards Instagram and the connection between online privacy and self-esteem, specifically within the context of Turkey. The association between online privacy and self-esteem, frequently addressed in the literature, has been explored concerning Instagram. The article's continuity in the literature is its assessment of the relationships between the online privacy phenomenon and self-esteem based on different age groups in Turkey. As evident in the intergenerational differences, establishing a relationship between self-esteem and privacy seems possible. Additionally, the decline in self-esteem also influences attitudes towards Instagram across generations. All these findings contribute to the literature in the Turkish context while providing a continuity in understanding.

Declarations

* *Approval of Ethics Committee:* Ethical approval was obtained from Istanbul University – Cerrahpaşa Institutional Review Board on 26.05.2021 with the number 98499.

* *Author Contribution Rate:* The contribution rate of the first author was 60% while that of the second author was 40%.

* *Conflict of Interest:* The authors declared no conflicts of interest.

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