

Individual and Interpersonal Factors That Influence Disclosure of Personal Identifiable Information on Social Networking Sites

Ahmed Alturki¹, Shatha Alkhaldi^{1*}, Abdullah Algarni³

¹ Department of Information Systems, Faculty of Computer and Information Sciences, King Saud University, Riyadh 11543, Saudi Arabia

² Information Technology Division, Institute of Public Administration, Riyadh 11141, Saudi Arabia_

* Corresponding author. Email: ahmalturki@ksu.edu.sa

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Abstract: This study aims to examine the influence of individual factors such as self-esteem and public consciousness and interpersonal factors such as the need for self-validation, social skills, and willingness to trust others on 'personal identifiable information' (PII) disclosure. The study used a quantitative research method. The study enrolled 375 male and female participants from Saudi Arabia. A closed-ended questionnaire was used to collect the data and analyzed using SPSS version 23. The study results predict that the following factors: self-validation, public self-consciousness, willingness to trust others, and social skills influence PII disclosure levels on social networking sites (SNS). This study identifies the most critical determinants and personal or individual factors that affect the degree of PII disclosure on SNSs.

Keywords: Social-ecological model (SEM), self-esteem, PII disclosure on SNSs, personal willingness to trust, individual social skills, public self-consciousness.

1. Introduction

Social Networking Sites (SNSs) have become increasingly popular over the past few decades due to greater Internet penetration levels in most parts of the world and the rise of mobile devices. Clement [1] shows that Facebook is the most popular SNS, with approximately 2.2 billion monthly users. Other popular SNSs include Instagram, WhatsApp, Twitter, WeChat, YouTube, and Snapchat. The use of the SNS differs for each of the platforms; for instance, Facebook, Skype, and WhatsApp focus on rapid communication between friends and family members, whereas Twitter and Tumblr allow users to share and spread new information rapidly. Instagram, WeChat, and Snapchat enable sharing videos and pictures among users. Despite the different nature of the SNSs, nearly all of them display content or information shared by the users.

As Boyd and Ellison [2] elaborated, the use of SNSs has had a powerful impact on users' social lives, often blurring the distinction between fundamental physical interactions and virtual interactions involving digital identities. When they join these sites, SNS users create a profile, revealing their identities by disclosing their personal information. Some users show their Personally Identifiable Information (PII) details such as their full name, place of residence, photographs; workplace; medical information; and passport and insurance numbers. Unfortunately, the PII disclosed could be accessed by other users. The level of connections and access to PII varies from one SNS to another.

Despite the numerous risks of revealing PII on SNSs, users continue to share these details. One such risk of PII disclosure is cyberstalking, where users become targets of stalkers who plan violent and other criminal

activities. The recent high number of cases of cyberbullying has been attributed to users sharing excess personal information on SNSs [3]. According to Datareportal [4], Facebook is one of the most popular SNSs among the various SNSs in the world. Nonetheless, it also has numerous issues related to privacy which are demonstrated through, for example, accidental exposure of 6 million users' contact information in 2011 and the Cambridge Analytica data breach in 2018 [5]. However, according to Debattin *et al.* [6], Facebook is deeply connected to routines and rituals in users' daily lives. Users wish to understand privacy issues pertaining to SNS uses and express privacy concerns [7]. According to Osatuyi *et al.* [8] and TsayVogel *et al.* [9], users still share their personal information in a large amount. Whereas Tsay-Vogel *et al.* [9] showed a negative relationship between Facebook users and privacy concerns, their disclosure of personal information in Facebook has weakened between 2010 and 2015, despite the rise in privacy breach cases over the period.

Thus, the current paper is interested in understanding why these users share their private information, irrespective of the numerous risks, well-established and elaborated on in the existing literature. Even though studies of PII disclosure such as Boyd & Ellison [2] and Bazarova & Choi [10], among others, have used the characteristics of the SNSs to explain the people's strategic goals and disclosing differently on social media networking sites depending on social media affordances and self-disclosure goals which mediate between media affordances and intimacy disclosure. Moreover, the paper used intrinsic motivation and examined the influence of individual and interpersonal factors in determining the level of PII disclosure on SNSs. The current study aims to assess the impact of individual and interpersonal factors such as self-esteem, public self-consciousness, willingness to trust others, social skills, and self-validation on the extent of PII self-disclosure in SNSs. This study's findings will contribute to the existing literature by identifying the most critical determinants and personal or individual factors that affect the degree of PII disclosure on SNSs.

2. Literature Review

The research literature shows the factors that lead to disclosing personal identifiable information on social networking sites. For example, some people suffer from cyberbullying because they have been exposed to sensitive information such as photographs, medical information, social issues, or details of their academic performance that make them vulnerable to insults and threats from other users. Even though providing personal information on SNSs may pose harmful risks, it is evident that the SNSs are essential, offering numerous benefits to their users. Online platforms promote the development of social skills, allowing individuals to communicate and connect virtually with other people or groups who share similar interests and backgrounds [11].

Nearly every SNS is indented for uploading, sharing, viewing, downloading, and understanding the information. The mutual intentions of information sharing are to get others' attention, attract like-minded people, develop social capital, develop information-based societies, and strengthen relationships among individuals. The users of SNSs commonly create a profile and put their information on those sites, mostly personal [12]. Name, pictures, e-mail, physical/ mailing address, cellular phone numbers, gender, interests, and other private or confidential information may be required for this profile. Some users, however, choose to post personal information on these sites since they have the option to add more personal information such as images, videos, family information, preferences, events, tales, views, and so on [13]. Sharing personal information on social media networks has become extremely simple in postmodern times. People eager to publish personal information on social media can choose from various sites, including the most popular, Facebook. The terms self-disclosure and 'personal information sharing' are used interchangeably in the literature. Disclosing personal information to others is known as self-disclosure [14].

According to Bazarova & Choi [10], people who intend to use SNSs like Facebook do so to keep in touch with their friends and families while rebuilding relationships with their old friends. There are different types

of relationship closeness, such as friendship, romantic, and family relationships [10]. The relationships mentioned above can be regarded as a subjective experience full of emotional affinity and psychological bonding with other people [15]. According to the concept of interpersonal solidarity, relationship closeness is a practical aspect in which people like, trust, interact frequently, and share a feeling of similarity with each other. The lack of PII implied by anonymity promotes the disclosure of more personal details such as fears, desires, and personal demerits in online interactions [16]. Chen and Sharma [17] suggest that convenience is one of the most critical factors causing PII disclosure as it motivates users to put aside their privacy concerns and enjoy the gratification and comfort of interacting with new friends. Compared to face-to-face communication methods, one unique aspect of personal identities on SNSs is that they are changeable and manipulated. People who prefer communicating online via SNSs are, on most occasions, motivated by the ability to engage in self-disclosure [17].

The main objective of SNSs is to gratify self-disclosure, like on Facebook, where users have the chance to share their photos and comments as they create their profile according to their liking [12]. As more information is disclosed, others are encouraged to interact to establish connections with other users. SNSs encourage social contacts across time and personal situations by allowing people to contact the outside world and their friends. The interaction is used in maintaining a friendship through the sharing of information. According to Trepte & Reineck [15], the modern form of Internet communication technology was created to enhance communication among new and existing friends, maintaining closeness.

Therefore, by gratifying the disclosure of personal information and interactions with friends, SNSs motivate users to reveal more details [19]. Their study further suggests that young people who frequent SNSs make deliberate choices before disclosing PII. The self-disclosure process is better described concerning social control than motivation for disclosure. Self-clarification, which is last on the list of motives for self-disclosure, allows one to reveal information about oneself to increase oneself-knowledge and better understand oneself. Self-disclosure enables one to perceive and recognize internal non-visible states [20] more clearly. A recent study investigates the antecedents of self-disclosure under the technology acceptance model (TAM) lens. The study finds that perceived usefulness is a strong predictor of personal information sharing, and it, along with other variables, causes a 31% variation in self-disclosure behaviour. However, trust (medium and social) mediates the relationship of perceived usefulness, privacy concerns, and self-disclosure behaviour [21].

Compared to other motives for self-disclosure, self-clarification is not among the main motives for self-disclosure. Other studies have found little or no evidence of self-clarification as a motive for self-disclosure [19,22]. The reason people with low self-esteem tend to seek a lot of friends is because they want to establish a sense of belonging and increase their perceived popularity [20], [23]. Those who have low self-esteem will primarily interact with people they do not know personally. According to Derlega & Grzelak [23], extroverts experience successful social interactions online more frequently than introverts. Therefore, it would not be wrong to say that extroverts use various SNSs more than introverts due to their social success, leading to self-disclosure of information on social networking sites.

Individuals, especially teenagers, are encouraged to provide a substantial amount of PII for various reasons and motives, including photos and geographical locations [24].

2.1. Theoretical Background and Hypotheses

The study's theoretical framework is the Socio-Ecological Model (SEM), which establishes a multi-level interaction system among individuals in the system. This framework explains the interaction and communication process necessary to design programs and synergies to induce positive change. According to the framework, the communication process is multifaceted and interactive between personal and environmental factors. The model establishes five hierarchical levels of human behavior: individual, interpersonal, community, organizational, and a policy-enabling environment. Table 1 describes these levels.

Regarding the motives for self-disclosure, human beings are social, and social validation is their default goal, causing them to reveal PII on SNSs. According to the theory of self-presentation put forward by Baumeister and Leary [25], humans aim to achieve social approval. As a result, they disclose personal information to gain general liking and social acceptance. Even though there are numerous offline environments where people can reveal their information to gain social liking and acceptance from others, they also disclose much information on SNSs. Because self-validation is an intrinsic human goal, people are more likely to engage in self-disclosure on these sites. It leads to the following hypothesis:

H1: The need for self-validation increases PII self-disclosure on SNSs.

Public self-consciousness influences self-disclosure on SNSs: self-disclosure of PII and posts by other users who share a social network with the profile owner serve as a source of identity [25]. Therefore, people with a high sense of public self-consciousness have a high chance of disclosing a significant amount of PII on SNSs to create identity and influence other users' perceptions. Therefore, this study hypothesizes the following:

H2: Public self-consciousness positively influences the level of self-disclosure on SNSs.

Self-esteem levels influence self-disclosure on SNSs: Individuals with low self-esteem spend most of their time online communicating with their peers and friends to pass the time or manipulate their impressions [26]. Krasnova et al. [27] conclude that there are varied reasons people with low self-esteem use SNSs, which leads to the following hypothesis:

H3: Low levels of Self-Esteem are positively related to PII self-disclosure on SNSs.

Trust and privacy concerns are vital factors that affect e-businesses and the level of activity on SNSs. Willingness to trust others influences self-disclosure on SNSs: Dineve & Hart [28] found a positive relationship between the users' trust in the SNSs and their willingness to disclose personal information online. Therefore, the study hypothesizes:

H4: Willingness to trust others influences the level of self-disclosure in SNSs.

The effect of Social Skills: Studies have concluded that individuals with good social skills who have successful face-to-face social interactions are more likely to engage in online social exchanges and self-disclosure, especially among adolescents and college students whose SNS interactions are directed to their offline peers [29,30], which leads to the following hypothesis:

H5: High levels of Social Skills increase the level of disclosure of PII on SNSs.

Table 1. A Description of the Levels in the Social-ecological Model (SEM)

SEM Level	Description
Individual	The characteristics of an individual that influence behavioral change, including knowledge, attitudes, behavior, self-efficacy, developmental history, gender, age, religious identity, racial/ethnic identity, sexual orientation, economic status, financial resources, values, goals, expectations, literacy, stigma, and others.
Interpersonal	Formal and informal social networks and social support systems can influence individual behavior, including family, friends, peers, coworkers, religious networks, customs, and traditions.
Community	Relationships among organizations, institutions, and informational networks within defined boundaries, including the built environment, village associations, community leaders, businesses, and transportation.

Organizational	Organizations or social institutions with rules and regulations for operations that affect how or how well, for example, MNCH services are provided to an individual or group.
Policy/Enabling Environment	Local, state, national, and global laws and policies, including policies regarding allocating resources for maternal, newborn, and child health and access to healthcare services, restrictive policies, or lack of policies that require childhood immunizations.

3. Materials and Methods

3.1. Study Design, PARTICIPANTS and Data Collection

The study used a quantitative approach and used a closed-ended questionnaire to collect data. All participants were given a consent form to sign as well as the research objectives were also explained before the commencement of the study. Because all the participants were Saudi nationals, the questionnaires were translated into Arabic. The number of respondents was 375. Of them, 43.7% were young people in the 18–24-year-old age group, and the percentage of males in the sample reached 67.7%, meaning that the sample was dominated by males, with the percentage of female respondents being only 32.3%. The bulk of the sample was Bachelor’s degree graduates, accounting for 70.7% of respondents about the variable of education level.

3.2. Study Procedures

The survey comprised of three parts. The first part covered the questions about the disclosure of PII on SNSs, and the second part included the questions specific to the parameters of SNS usage. As some researchers prefer to gather the participants’ demographics at the end of the questionnaire, the demographic (gender, age, and education) questions were placed. To maximize response rates while minimizing errors, the questionnaire design was guided by the Poon [30] study. Moreover, a 5-point Likert Scale was utilized to determine the intentions of the participants and their behavioral responses concerning the PII disclosure study, with a rating system of "strongly disagree" = 1, "disagree" = 2, "no attitude" = 3, "agree" = 4, and "strongly agree" = 5 [31]. Table 2: shows the summary of key features and participants groups for communication for the development approach. Moreover, Table 3 shows all the questions related to the research hypotheses.

Table 2. Summary of Key Features and Participant Groups for the C4D Approaches

C4D Approach	Key Features	Participant Groups
Advocacy	Focuses on the policy environment and seeks to develop or change laws, policies, and administrative practices Works through coalition-building, community mobilization, and communication of evidence-based justifications for programs	Policymakers and decision-makers Program planners Program implementers Community leaders
Social Mobilization	Focuses on uniting partners on the national and community levels for a common purpose	National and community leaders Community groups/organizations Public and private partners

	Emphasizes collective efficacy and empowerment to create an enabling environment Works through dialog, coalition-building, group/organizational activities	
Social Change Communication	Focuses on enabling groups of individuals to engage in a participatory process to define their needs, demand their rights, and collaborate to transform their social system Emphasizes public and private dialog to change behavior on a large scale, including norms and structural inequalities Works through interpersonal communication, community dialog, mass, and digital social media	Groups of individuals in communities
Behavior Change Communication	Focuses on individual knowledge, attitudes, motivations, self-efficacy, skills building, and behavioral change Works through interpersonal communication, mass, and digital social media	Individuals Families/households Small groups, e.g., mothers' support groups

Table 3. Hypothesis Items

Construct	Sample item after refinement
Self-esteem (self-developed, partly based on [26], [27])	Sharing information on social networking sites makes me feel happy about myself.
	Sharing information on social networking sites makes me feel confident about myself.
	Sharing information on social networking sites makes me feel optimistic about life.
	I use my photograph in my profile.
	I am honest in my self-disclosure in my profile and my posts.

Willingness to Trust Others [28]	Social networking sites have good intentions regarding my private data.
	Social networking sites have ample capacity and expertise to ensure my data privacy.
	Various rules and regulations on various social networking sites are strictly adhered to.
	I trust that my social networking site friends wouldn't do anything with my personal information that I would disapprove of.
	I trust that social networking sites check if everybody plays by the rules.
Social Skills [29]	Social networking sites are beneficial in facilitating interactions between friends.
	Interacting on social networking sites is always fun.
	Catching up on social networking sites is easy.
	Sharing personally identifiable information on social networking sites makes me popular among my peers.
Public Self-Consciousness [25]	Sharing personally identifiable information on social networking sites allows me to portray a good impression of myself.
	I only share the necessary data online that presents myself in a good way.
	My social networking sites experience enables me to be careful about what to share.
	I don't deliberately say derogatory comments about someone or a situation.
	I am a flexible individual and do not resent people holding different opinions.
Self-validation (Self-developed) [25]	I only share information on social networking sites to attract attention to my accomplishments.
	The number of likes, followers, and comments I receive affects my feelings of worthiness.
	I feel the current environment justifies my need for positive re-enforcement.

	I seek to gain people’s acceptance by using social networking sites.
PII disclosure on SNSs [25]	I have a comprehensive profile on social networking sites.
	I have a detailed profile on social networking sites.
	From my social networking site profiles, it would be easy to find my preferences in music, movies, books, etc.
	I feel in control over who can view my information on social networking sites.
	I find time to keep my social networking sites’ profiles up-to-date.

3.3. Data Analysis

The data collected were analyzed using SPSS version 23.0. The study used Principal Component Analysis (PCA) testing, Correlation Matrix, and Multiple Regression analysis. The reason for conducting PCA in this study was to examine the validity of the survey and the internal consistency among the variables in the sample [32], [33].

3.4. Reliability Test

To check the reliability of the study, the internal consistency of all the items of the questionnaire was calculated using Cronbach's alpha coefficient, which is the most widely used assessment of internal consistency. A Cronbach's alpha value (α) of 0.70 is considered adequate for reliability [34]. The reliability coefficient was 0.793, which is deemed acceptable according to Cortina [34] and is relatively high.

4. Results

Table 4 shows the result of Principal Component Analysis (PCA) testing. The analysis results exposed six aspects with an eigenvalue of 1 or higher. The factor loadings for all the six aspects were close to 1. The values closer to 1 showed a more significant association than those that were less than 0.5.

Table 4. Principal Component Analysis (PCA) testing

Factors	Measurement Items	Loading / component
Self-esteem Eigenvalue: 2.9	Sharing information on social networking sites makes me feel happy about myself.	0.58
	Sharing information on social networking sites makes me feel confident about myself.	0.50
	Sharing information on social networking sites makes me feel optimistic about life.	0.84
	I use my photograph in my profile.	0.16
	I am honest in my self-disclosure in my profile and my posts.	0.84
Willingness to Trust Others	Social networking sites have good intentions regarding my private data.	0.53
	Social networking sites have ample capacity and expertise to ensure my data privacy.	0.61

Eigenvalue: 2.8	Various rules and regulations on various social networking sites are strictly adhered to	0.53
	I trust that my social networking site friends wouldn't do anything with my personal information that I would disapprove of.	0.39
	I trust that social networking sites check if everybody plays by the rules.	0.44
Social Skills Eigenvalue: 2.8	Social networking sites are beneficial in facilitating interactions between friends.	0.36
	Interacting on social networking sites is always fun.	0.85
	Catching up on social networking sites is easy.	0.30
	Sharing personally identifiable information on social networking sites makes me popular among my peers.	0.84
Public Self-Consciousness Eigenvalue: 2.7	Sharing personally identifiable information on social networking sites allows me to portray a good impression of myself.	0.88
	I only share the necessary data online that presents myself in a good way.	0.88
	My social networking site experience enables me to be careful about what to share.	0.36
	I don't deliberately say derogatory comments about someone or a situation.	0.08
	I am a flexible individual and do not resent people holding different opinions.	0.89
Self-Validation Eigenvalue: 2.5	I only share information on social networking sites to attract attention to my accomplishments.	0.93
	The number of likes, followers, and comments I receive affects my feelings of worthiness.	0.90
	I feel the current environment justifies my need for positive re-enforcement.	0.84
	I seek to gain people's acceptance by using social networking sites.	0.93
PII disclosure on SNSs Eigenvalue: 3.7	I have a comprehensive profile on SNSs.	0.78
	I have a detailed profile on SNSs.	0.39
	From my SNS profiles, it would be easy to find out my preferences in music, movies, books, etc.	0.39
	I feel in control over who can view my information on SNSs.	0.78
	I find time to keep my profile up-to-date.	0.80

4.1. Correlation Matrix

Table 5 shows that all correlations were significant since p-value $0.000 > 0.005$, representing a correlation between the factors (Table 5). Also, there are several pairs of highly correlated factors. For example, social skills are positively correlated with public self-consciousness and public self-consciousness (correlation=.569), but social skills are highly correlated with self-validation (correlation=.423). It is possible to identify a likely factor structure observed from the correlation matrix.

Table 5. Correlation Matrix

Factors		PII disclosure on SNSs	Self-esteem	Willingness to trust others	Social skills	Public self-consciousness	Self-validation
Correlation	PII disclosure on SNSs	1.00	.36	.31	.40	.40	.34

	Self-esteem	.36	1.00	.39	.36	.38	.34
	Willingness to trust others	.31	.39	1.00	.35	.35	.23
	Social skills	.40	.36	.35	1.00	.56	.42
	Public self-consciousness	.40	.38	.35	.56	1.00	.38
	Self-validation	.34	.34	.23	.42	.38	1.00
Sig. (1-tailed)	PII disclosure on SNSs		.00	.00	.00	.00	.00**
	Self-esteem	.00		.00	.00	.00	.00**
	Willingness to trust others	.00	.00		.00	.00	.00**
	Social skills	.00	.00	.00		.00	.00**
	Public self-consciousness	.00	.00	.00	.00		.00**
	Self-validation	.00	.00	.00	.00	.00	0.00**

4.2. Testing the Hypotheses

Table 6 shows the t-value and corresponding p-values in the "t" and "Sig." columns. For Self-Esteem, B=0.11 means that a low level of Self-Esteem increases PII disclosure on SNSs. For Willingness to Trust Others, B=0.11, which is significant. Willingness to Trust Others positively influences the level of self-disclosure on SNSs. For Social Skills, B=0.16, which is substantial. High Social Skills increase the level of PII disclosure on SNSs. For Public Self-Consciousness, B=0.08, which is significant. Public Self-Consciousness positively increases the level of self-disclosure. For Self-Validation, B=0.07, which is substantial. Self-Validation increases the level of disclosure of PII on SNSs.

Table 6 provides the R, R squared, adjusted R squared, and the standard error of the estimate, which can be used to determine how well a regression model fits the data: The essential information from the table below is the R squared value of 0.166. It indicates that 16.6% of the variation in PII disclosure on SNSs can be explained by the model containing Self-Esteem, Willingness to Trust Others, Social Skills, Public Self-Consciousness, and Self-Validation. It conveys a simple yet powerful message to the influence of the dependent variables in this research, namely (self-esteem, public, willingness to trust others, social skills, public self-consciousness, and self-validation) on the PII disclosure on SNSs since there are no clear boundaries of the acceptable range of R-squared.

Table 6. Coefficient Results of Multiple Regression Analysis

Model-	Unstandardized Coefficients		t	Collinearity Statistics		p. value	Result
	B	Std. Error		Tolerance	VIF		
	(Constant)	14.32		1.51	9.47		
Self-esteem	0.11	0.04	2.76	1.14	0.87	0.00	Supported
Willingness to Trust Others	0.11	0.03	2.97	1.14	0.87	0.03	Supported
Social Skills	0.16	0.04	3.74	1.09	0.91	0.00	Supported

Public Consciousness	Self-	0.08	0.04	1.92	1.02	0.97	0.04	Supported
Self-validation		0.07	0.03	2.15	1.11	0.89	0.03	Supported

A multiple regression model was used to clarify the significance of the relationship between the factors. Figure 1 shows the values of the regression equation coefficients and the importance of these coefficients.

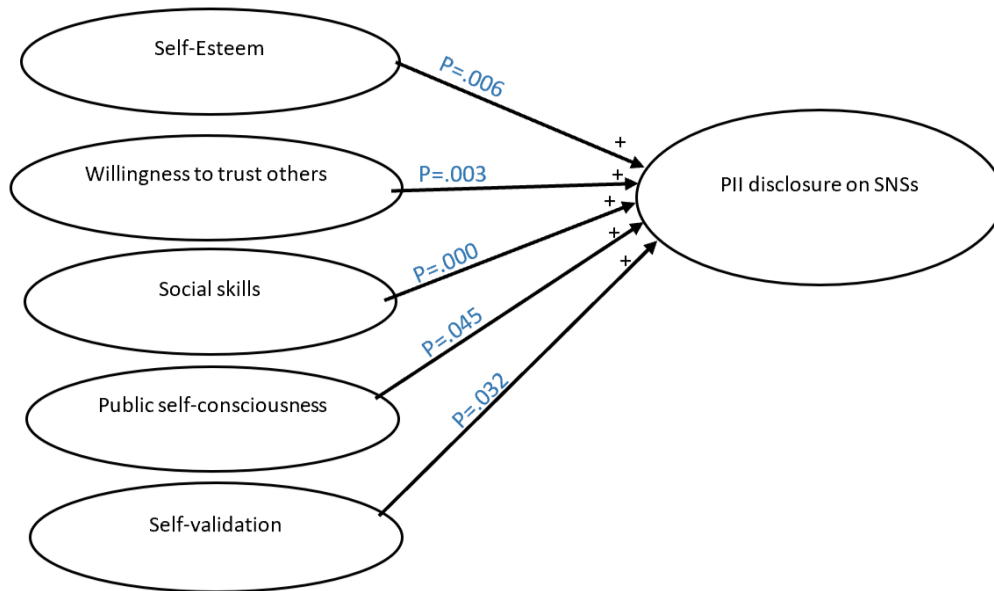


Fig. 1. Coefficients of the regression equation variables for the proposed model.

5. Discussion

The study aimed to examine the influence of individual factors such as self-esteem and public consciousness and interpersonal factors such as the need for self-validation, social skills, and willingness to trust others on identifiable personal disclosure. This section summarizes the most crucial study results related to each hypothesis linking with relevant previous studies cited above.

The significance of all the regression coefficients for the independent variables in the proposed model becomes clear, indicating the existence of a direct relationship between the independent variables in the model (Self-Validation, Public Self-Consciousness, Self-Validation, Willingness to Trust Others, Social Skills) and the dependent variable (PII disclosure on SNSs). The value of the determining factor for the model on SNSs can be explained by the model containing Self-Validation, Public Self-Consciousness, Self-Validation, Willingness to Trust Others, and Social Skills. In contrast to the results of this study, a survey in early 2018 showed that young adults in the US, especially in the same age group as the majority of this study (18–24), had quite different preferences, with 94% using YouTube, 80% using Facebook, and 87% using Snapchat; moreover, Facebook and YouTube were more frequently used by the older age group [35]. Also, this finding is in line with the results of Lin & Chu [12], which states that the main objective of social networking sites is to gratify self-disclosure where the users get the chance to share their personal information such as photos or comments when they create their profile in accordance with their liking. Another study by Bargh et al. [19] supports the current study's findings by stating that gratifying the disclosure of personal information and interactions with friends on social networking sites encourages users to reveal more information.

The study shows an association between the degree of SNS use and self-disclosure, especially in the case of mobile devices. It has been demonstrated that people have fewer inhibitions regarding disclosing personal

information online. This finding is in line with Chen & Sharma [17] and Trepte & Reinecke [15], who states that people prefer communicating via SNSs quite often and are motivated by the ability to engage in self-disclosure.

6. Conclusions

The study findings revealed that individual and interpersonal factors influence PII disclosure. The results of this study lead to numerous significant suggested practices that should be effective in avoiding the adverse influences of PII disclosure on SNSs. It is recommended that the SNS providers establish efficient privacy features, giving users warnings when revealing PII and allowing for parent mediation for young users. Individuals should have more awareness of the risks of disclosing their information on SNSs. Most users, particularly teenagers, are at risk of over-disclosure and online invasions of their privacy due to underestimating the consequences of their actions. However, users aware of the threats and dangers often fail to manage their privacy preferences because of the complexity and ambiguity of the interfaces in most social networks and the lack of user-friendly guidelines that would help them choose appropriate privacy settings.

Conflicts of Interest

The authors declare no conflict of interest

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Ahmad Alturki was born in Riyadh, Saudi Arabia, in 1978. He received the B.S. degree in information systems from King Saud University, Saudi Arabia, in 2000, and the M.S. and Ph.D. degrees in information systems from the Queensland University of Technology, in 2009 and 2014, respectively. He is currently an assistant professor at the Department of Information Systems, King Saud University, a position he has held since 2014. He is the author of more than ten published articles. He is a scientific reviewer for two journals and two conferences. His research interests include business process management, entrepreneurship, design research in information systems, enterprise resource planning systems, and design science research methodology in information systems. He was a recipient of the Best Dissertation Award from the Australian 2014.

Shatha Alkhalidi was born in Riyadh, Saudi Arabia, in 1992. She received the B.S. degree from Imam Muhammad ibn Saud Islamic University, Riyadh, Saudi Arabia, in 2016 and the M.S. degree in information systems from King Saud University, Riyadh, Saudi Arabia, in 2020. Her research interests include content analysis, social engineering, information behavior, and information security.

Abdullah Algarni received the B.S. degree in computer science from King Abdulaziz University, Jeddah, Saudi Arabia, the M.S. degree in computer science from Western Michigan University, Kalamazoo, MI, USA, and the Ph.D. degree in computer science from the Queensland University of Technology, Brisbane, QLD, Australia. He is currently an assistant professor at the Division of Information Technology and the director of Innovation and Business Development at the Institute of Public Administration, Saudi Arabia. His current research interests are mainly in the areas of social engineering, phishing, deception, and information security management. He has published several articles in journals such as EJIS, IEEE ACCESS, and IJEEE and presented papers at international conferences such as ICIS, HICSS, and PACIS by the Australian Council of Professors and Heads of Information Systems (ACPHIS).