

Information Privacy Concerns on Social Networks: A study of Qassim University Students

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Abstract

The privacy of social networks is necessary for the protection of the confidential information of the public. Social media networks are increasing privacy protection for a better user experience. The students are mature and more concerned about privacy-related information on social networks. This research aimed to investigate the impact of privacy control, privacy concerns, and privacy value on trust on social media. This research has collected cross-sectional data from the students of Qassim University. The study has used "Smart PLS 3.0" for findings and data analysis. The analyzed data shows that the direct impact of privacy control, privacy concerns, and privacy value is accepted ($t > 1.96$ and $p < 0.05$) on trust in social media. The framework of this study for trust in social media is newly developed in the literature that is a significant addition to the body of knowledge. The research framework of this study has significant theoretical implications in the body of knowledge that weren't discussed by the earlier studies. Practically, this research also has implications for the improvement of the trust of students in social media, as this trust is necessary for the growth of social media. The study has presented its limitations with future directions appropriate for improving the trust model on social media networks.

Keywords: Social media, privacy concerns, privacy value, privacy control, social networking

1. Introduction

Social media users are found in every country because it has become a source of information sharing to the public (Jozani et al., 2020). Social media networking is increased with the spread of the internet all over the world. The role of large social media networks Facebook, Twitter, and Instagram has contributed a lot to the networking of social media (Marín, Carpenter, & Tur, 2021). Social media networks are a significant source of information sharing. Not only is the routine information of users shared on social media networks, but modern users of social media networks also share information related to politics (Shi et al., 2020). The role of social media must be considered productively because with the help of social media, the users are

satisfied with the information-sharing process and they have confidence in it (Alshare, Moqbel, & Al-Garni, 2019; Fan et al., 2020; Hoffmann & Lutz, 2021). Likewise, the general public and students of different educational institutes are also using social media networks for information sharing related to academic activities and their other achievements (Jozani et al., 2020; Marín et al., 2021).

Social media privacy control has become integral to social networking because the public is concerned about privacy control (Cistulli & Snyder, 2019; Zhang & Fu, 2020). The shared information of the public on social media networks must be protected. The privacy certificates for social media networks are necessary to make sure that the confidential information of the users is protected, but the user wants the practical implication of it (Quan-Haase & Elueze, 2018; Takhshid, 2020; Zhang et al., 2018). The option to lock the profile is newly developed for privacy control on social media. This option improves social media networks' privacy to the next level (Abokhodair & Hodges, 2019; Tsay-Vogel, Shanahan, & Signorielli, 2018). The users of social media networks are highly motivated to check their privacy before creating a new account on these websites as they believe their information should be protected and not shared with anyone else (Sujon, 2018; Vgena, Kitsiou, & Kalloniatis, 2022). This concern about strong privacy for the social profile is genuine, and social networking demonstration and technical teams are required to work on this concern to provide appropriate privacy levels for the satisfaction of the users (Fan et al., 2020; Jozani et al., 2020; Shi et al., 2020).

The research on social media networks has discussed different dimensions of it that are found in the literature. Obar and Oeldorf-Hirsch (2020) reported that social media websites are necessary for information sharing and privacy control to improve the user experience. Lax, Russo, and Fasci (2021) highlighted that the privacy certificates provided by social networking websites are necessary to increase the users' confidence in their privacy issues. Shi et al. (2020) demonstrated that social media networks had become a critical part of modern life because it is helpful to share confidential information. Kroll and Stieglitz (2021) highlighted that social media applications are used to share political information from one user to another in a confidential way. Guo et al. (2020) highlighted that the only concern of the privacy

control management of social networking is to provide confidence to the users about their protected information. [Wei et al. \(2018\)](#) asserted that the information on social media websites must be protected from any breach to improve the users' experience.

Based on the significant gap in the literature, this research aimed to determine the relationship between privacy control, privacy concerns, privacy value, and trust on social media. The framework of this study for trust in social media is newly developed in the literature that is a significant addition to the body of knowledge. The study has used "Smart PLS 3.0" for findings and data analysis. The research framework of this study has significant theoretical implications in the body of knowledge that weren't discussed by the earlier studies. Practically, this research also has implications for the improvement of the trust of students in social media, as this trust is necessary for the growth of social media. Finally, the study has presented its limitations with future directions appropriate for improving the trust model on social media networks.

2. Review of Literature

Privacy is critical on the internet because it significantly influences people to use social networking sites ([Marín et al., 2021](#)). Furthermore, social media has become a critical part of life, and the public spends a lot of time on social media for information sharing ([Zhang et al., 2021](#)). The research highlighted that social media should be used positively to improve working performance ([Vgena et al., 2022](#)). Social media networks providing critical privacy policies for consumers are famous in the market according to their usage ([Sujon, 2018](#)). The role of privacy can't be eliminated from social media integrity as the public also uses social media for personal information sharing ([Abokhodair & Hodges, 2019](#)).

Modern-day people are educated and mature and demand strong privacy on social media because they believe their confidential information shouldn't be shared with anyone ([Tsay-Vogel et al., 2018](#)). Information sharing has become critical, and based on this information. Social media is working in society ([Quan-Haase & Elueze, 2018](#)). Mostly, women are more concerned about the privacy policy of social media because they believe their confidential information shouldn't be shared with anyone

(Takhshid, 2020). Furthermore, the role of social media has become to share political information. Therefore, people want to share confidential information on social media networks (Zhang et al., 2018).

The value of privacy is critical because the people involved in social media networking want to protect their information from hackers and blackmailers (Zhang & Fu, 2020). Many blackmailers are using the shared information on social media for the ill purpose of blackmailing (Cistulli & Snyder, 2019). The need for privacy and continuous improvement is critical for improving social media websites (Jozani et al., 2020). The strong privacy control on social media provides confidence to the public for using social media as it has become a critical part of our society (Marín et al., 2021). The role of social media can't be ignored in modern-day society, but privacy control and reducing the chances of the breach is the responsibility of social media companies (Alshare et al., 2019).

Modern users of social media are demanding networking and information sharing with privacy and trust (Jozani et al., 2020). Consumers who think social networking isn't appropriate for their information protection, these consumers aren't interested in social media websites (Fan et al., 2020). The application of social media on the smartphone also gives access to the user's personal information of the users but based on their confidence. The users provide access to their personal information (Hoffmann & Lutz, 2021; Malik, 2020). The strong control of privacy on social media provides a way of hope to the people using social media for their benefit for information sharing (Shi et al., 2020). The social network which facilitates the best privacy is always famous to the public.

Han et al. (2018) highlighted that privacy on social media is necessary as it increases users' confidence. Pensa, Di Blasi, and Bioglio (2019) asserted that users who are strongly critical about their privacy on social media networks, these users are always concerned about the terms and conditions of using any application of social media. Zhang et al. (2021) reported that trust in social networking is increased when the user's personal information isn't shared with anyone else. Zhang and Fu (2020) highlighted that social media networks should provide all related information about the privacy control of the users to get consent and access

to their information. [Pelet and Taieb \(2017\)](#) concluded that the users of any social media left the network due to the breach in the shared information. [Siddula et al. \(2020\)](#) reported that many users are leaving social media networks as they don't want to share their user activity with marketing companies. The strong use of social media is possible when the shared information of the people should be protected significantly. [Wang et al. \(2018\)](#) highlighted that social media networks are used for sharing information and communication, but the protection of user information is the responsibility of service providers. The unsatisfied users are less interested in privacy control because they don't think of confidential information sharing ([Zhang, Hu, & Jiang, 2020](#)).

Hypothesis 1: Privacy control positively impacts trust in social media.

[Jozani et al. \(2020\)](#) highlighted that the users of social media networks are always concerned about their personal information. [Boshrooyeh, Küpçü, and Özkasap \(2020\)](#) concluded that the concern of users regarding their privacy controls every day because every user wants to hide his personal information from others. [Voloach et al. \(2019\)](#) reported that social media networks with strong privacy control are appropriate for users as their personal information is saved on them. [Moustaka et al. \(2018\)](#) concluded that information sharing on social media would improve when the users had confidence in protecting their personal information. [Bioglio et al. \(2018\)](#) also reported that social media users are mature and get access to the option of privacy control to customize it according to their concerns and usage. According to [Wei et al. \(2018\)](#), social networking websites should provide users access to edit and update their private information. [Obar and Oeldorf-Hirsch \(2020\)](#) asserted that the networking of people would be increased on social media when the users would have confidence that the information is secure from any third party. End-to-end encryption has become a critical part of social media as it allows users to check whether their information is secure. Furthermore, [Lax et al. \(2021\)](#) highlighted that social media should be used effectively for information sharing and users must have strong privacy on these networks.

Hypothesis 2: Privacy concerns positively impact trust in social media.

Siddula et al. (2020) concluded that for the users of social media networks, privacy is considered a critical concern. Marín et al. (2021) reported that privacy and information sharing on social media are essential for users with productive access to their work. Oghazi et al. (2020) reported that social media network users value their privacy because they think their privacy is necessary for their work on social media. The shared information on these social media websites and applications should be confidential because the users are always motivated to use the application that is good for managing privacy, as mentioned by Bioglio et al. (2018). The little control of privacy on social media websites is problematic for users who are not interested in using these applications for better work. Vgena et al. (2022) concluded that users' trust in social media networks is necessary. Based on this trust, the relationship between the users and service providers is developed for a long time. Control on social media is necessary for information sharing because without the control on privacy, the confidence of the users is decreased, and they leapfrog from one network to another (Cistulli & Snyder, 2019; Jozani et al., 2020; Marín et al., 2021). Furthermore, Fan et al. (2020) demonstrated that social media networks must have access to strong privacy control necessary for the sharing of information in a productive way. Figure 1 of the study explains the research model of trust on social media networks.

Hypothesis 3: Privacy value positively impacts trust in social media.

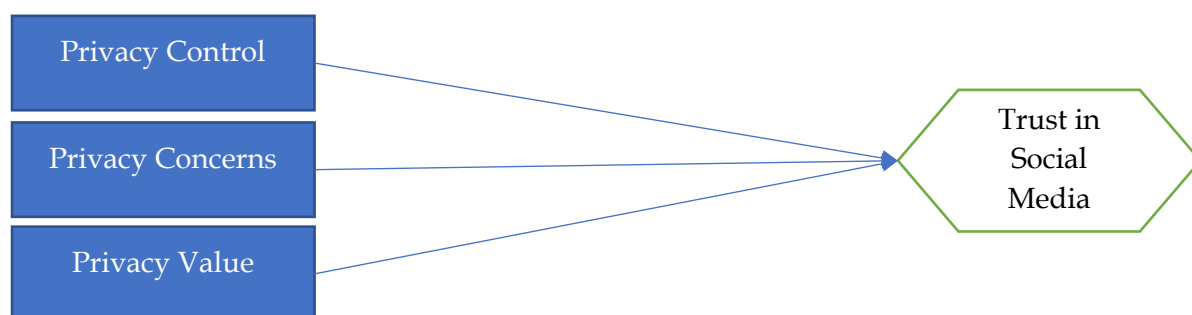


Figure 1. Trust in Social Media Research Framework

3. Research Methodology

Any research method is critical because it validates the study's findings. In the field of “social sciences,” many studies are based on “primary data” because the study's respondents are public. This study is based on the students’ trust in social

media, which is also considered the “primary data” because the students are respondents to this study. For providing empirical support to the findings of the study, the significant role of primary data must be ensured by the researchers. Furthermore, this research has used a “simple random sampling method” for data analysis because this method is justified by the studies when the study population is known and shares the same trait. Since the study has considered the students of Qassim University; therefore, the questionnaire on social media can be surveyed these students for their responses. The “measurement scale” for this research is adapted from the identified studies in the literature. This research utilized the adapted scale items from [Foltz, Newkirk, and Schwager \(2016\)](#) for measuring the direct and positive impact of privacy control on trust on social media. Secondly, this research employed the adapted scale items from [Pelet and Taieb \(2017\)](#) for measuring the direct and positive impact of privacy concerns on trust on social media.

Furthermore, this research used the adapted scale items from [Foltz et al. \(2016\)](#) to measure privacy value's direct and positive impact on trust on social media. Similarly, this research applied the adapted scale items from [Tuunainen, Pitkänen, and Hovi \(2009\)](#) for measuring the role of trust in social media in relationship with privacy control, privacy concerns, and privacy value. For the “validity” of these items, this research has considered the “Cronbach’s Alpha” findings from the source study. Additionally, the oral consent of the respondents was taken for this study as they were interested in providing the data. 755 questionnaires were developed and delivered to the respondents, and they were asked to share the information about the questionnaire because their confidential information wasn’t required in this research. Only 512 questionnaires were collected for data analysis, and 505 questionnaires were finalized for the study sample.

4. Findings and Results

This research has employed the “Smart PLS” statistical tool for data analysis and findings. Firstly, the normality of the study was tested with “kurtosis and skewness” values. According to the study by *f*, “a general guideline for skewness is that if the number is greater than +1 or lower than -1, this is an indication of a

substantially skewed distribution, and for kurtosis, the general guideline is that if the number is greater than +1, the distribution is too peaked." The normality data results presented in Table 1 reveal the study has "normality."

Table 1. Data Normality Test

Items	Mean	Standard Deviation	Excess Kurtosis	Skewness
PC1	3.184	1.451	-0.339	0.065
PC2	3.18	1.742	-0.472	0.458
PC3	3.452	1.831	-0.627	0.375
PC4	3.399	1.829	-0.591	0.44
PC5	3.461	1.66	-0.247	0.347
PC6	3.408	1.733	-0.558	0.245
PC7	3.417	1.776	-0.778	0.157
PC8	3.623	1.832	-0.684	0.246
TSN1	3.654	1.828	-0.658	0.34
TSN2	3.596	1.911	-0.669	0.418
TSN3	3.482	1.832	-0.544	0.433
TSN4	3.526	1.829	-0.544	0.393
TSN5	3.544	1.857	-0.684	0.342
TSN6	3.447	1.782	-0.395	0.484
PCL1	3.465	1.874	-0.815	0.248
PCL2	3.404	1.786	-0.502	0.378
PCL3	3.579	1.739	-0.458	0.322
PCL4	2.978	1.416	0.081	0.637
PV1	3.07	1.384	0.812	0.892
PV2	3.118	1.284	1.344	0.929
PV3	3.039	1.332	0.657	0.712

In addition, the study has used the "measurement model and structural model" findings for further data analysis. The "reliability and validity" of the findings are tested with "Cronbach's Alpha" value considering " $\alpha > 0.70$ ". Also, this study has determined the findings of "composite reliability (CR)" by considering "CR > 0.70" and obtained the findings of "average variance extracted (AVE)" by considering "AVE > 0.50". The results in Table 2 and Figure 2 reveal that the study's findings have "reliability." Furthermore, the results of α are presented in Figure 3.

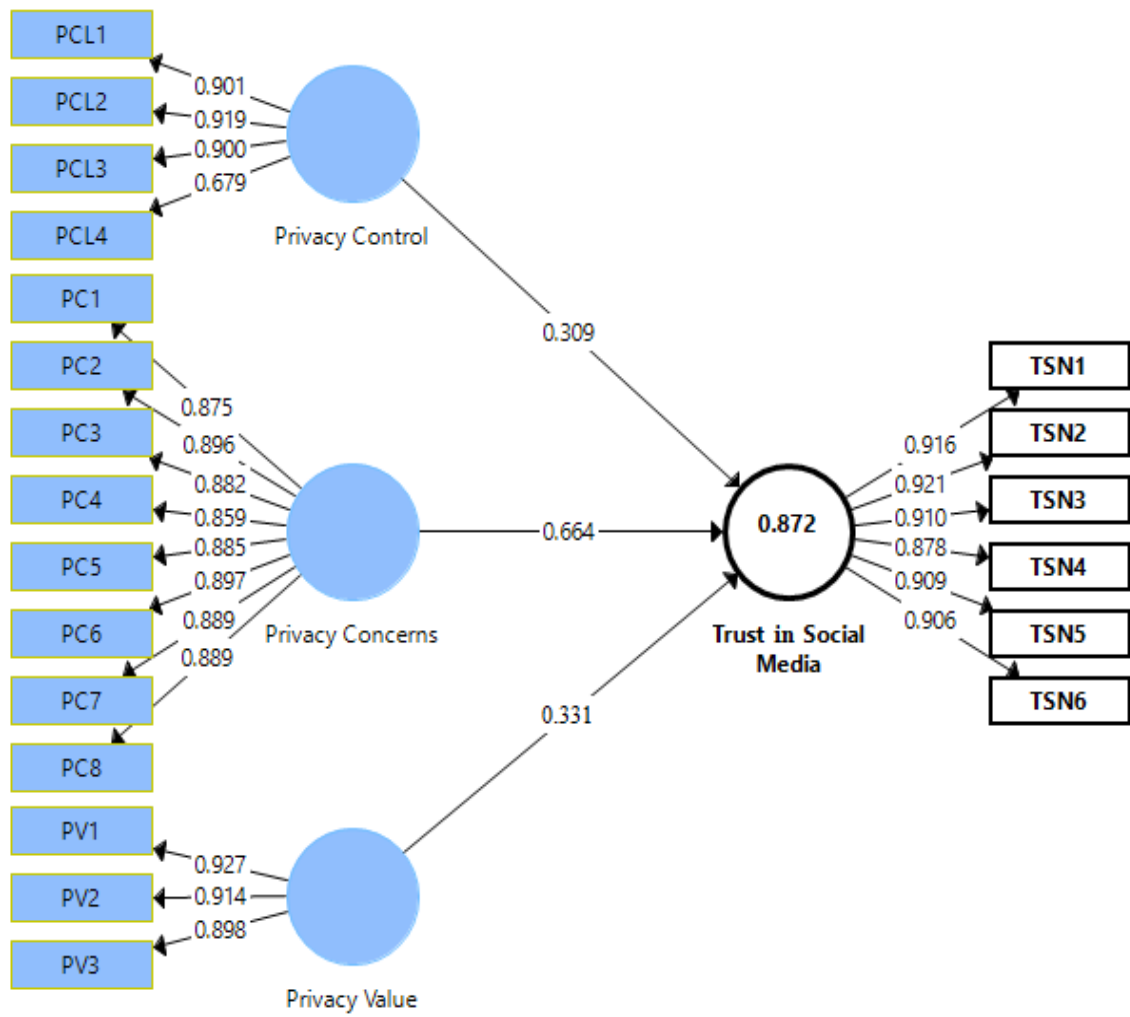


Figure 2. Measurement Model

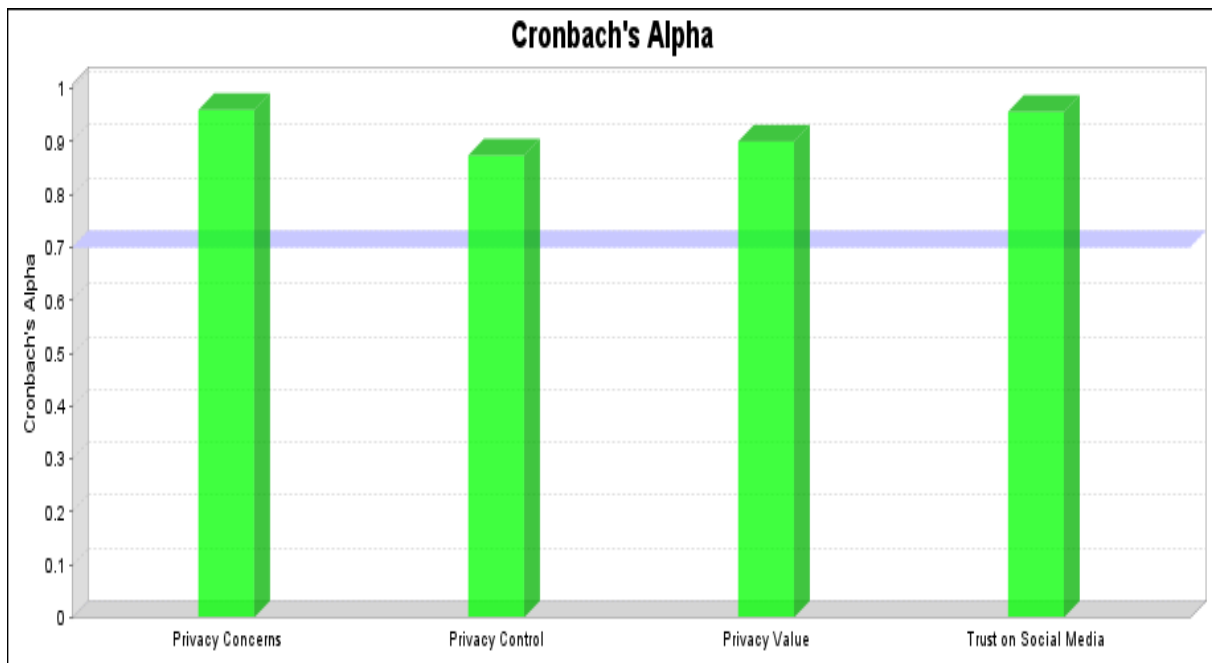


Figure 3. Cronbach's Alpha Graph

Table 2. Scale Items, Reliability, and Validity

"Constructs	Items	Scale	FL	Alpha	CR	AVE
Privacy Concerns	PC1	I think that social networks are clear about their privacy policies.	0.875	0.960	0.966	0.782
	PC2	I think that social network users are sufficiently aware of the privacy policies used by social networks.	0.896			
	PC3	I've already read the privacy policy of the social network(s) I use.	0.882			
	PC4	Privacy policies are generally too long.	0.859			
	PC5	Privacy policies are generally difficult to read.	0.885			
	PC6	I would like to know more about the privacy policies used by my social networks.	0.897			
	PC7	I want social networks to take more measures to make their users aware of their privacy policies.	0.889			
	PC8	I want some tutorials to be set up to inform people about privacy policies when they register on social networks.	0.889			
Privacy Control	PCL1	Overall, I believe that social networking privacy and security settings are easily changed.	0.901	0.874	0.915	0.732
	PCL2	I have the resources necessary to change my social networking privacy and security settings.	0.919			
	PCL3	I would easily change my social networking privacy and security settings.	0.900			
	PCL4	I know necessary to change my privacy and security settings on social networking sites.	0.679			
Privacy Value	PV1	I believe it is essential to check social networking privacy and security settings	0.927	0.901	0.938	0.834
	PV2	I believe it is essential to understand social networking privacy and security settings.	0.914			
	PV3	Changing the privacy and security settings of social networking sites is unpleasant.	0.898			
Trust in Social Media	TSN1	I worry about my privacy and data security while using the internet.	0.916	0.957	0.965	0.822
	TSN2	I worry that if I use my credit card to buy something on the internet, my credit card number will be obtained/intercepted by someone else.	0.921			
	TSN3	I worry about people online not being who they say they are.	0.910			
	TSN4	I feel that identity theft could be a real privacy risk.	0.878			
	TSN5	I worry that if I use the internet with my mobile phone and someone will steal it. They can find out some of my personal information or data.	0.909			
	TSN6	I'm familiar with data protection and security while using the internet."	0.906			

Likewise, the study has checked the "discriminant validity" of the findings. According to the study by [Ab Hamid, Sami, and Sidek \(2017\)](#), "discriminant validity tests whether concepts or measurements that are not supposed to be related are unrelated." This research has employed "Heteritrait-Monotrait (HTHT)" by considering "HTMT < 0.90" sanctioned by [Gold, Malhotra, and Segars \(2001\)](#). The outcomes available in Table 3, the research has "discriminant validity."

Table 3. Heteritrait-Monotrait

	Privacy Concerns	Privacy Control	Privacy Value	Trust in Social Media
Privacy Concerns				
Privacy Control	0.789			
Privacy Value	0.687	0.839		
Trust in Social Media	0.666	0.766	0.662	

The path findings of this research are analyzed with “PLS Bootstrapping” outcomes. The values are analyzed critically, and all hypotheses are significant (see Table 4). The study revealed “ $p = 0.309$ and $p = 4.447$ ” the positive impact of privacy control on trust on social media is accepted. Furthermore, the study revealed “ $p = 0.664$ and $p = 11.712$ ” the positive impact of privacy concerns on trust on social media is accepted. Lastly, the study revealed “ $p = 0.331$ and $p = 8.073$ ” the positive impact of privacy value on trust on social media is accepted. The findings are also displayed in Figure 4.

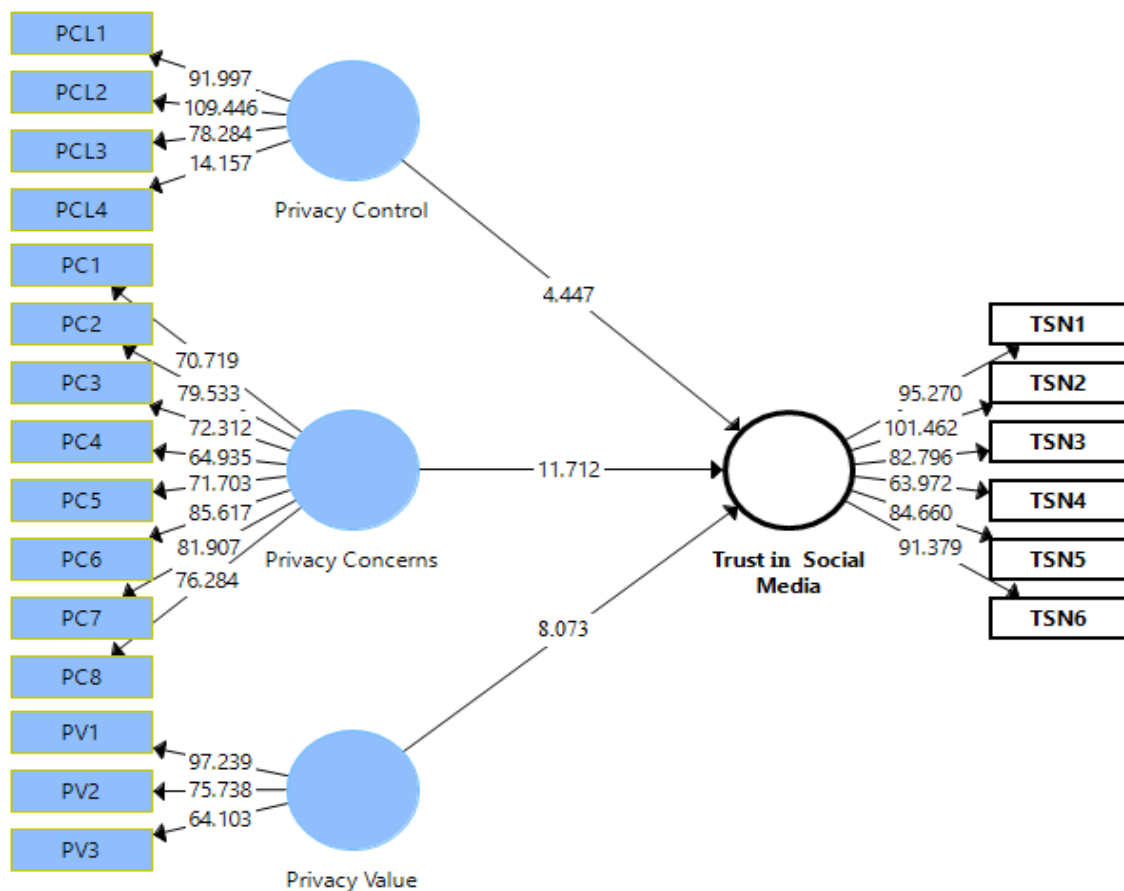


Figure 4. Structural Model

Table 4. Path Findings

Hypotheses	Original Sample	Standard Deviation	T Statistics	P Values	Status
Privacy Control -> Trust on Social Media	0.309	0.069	4.447	0.000	Accepted
Privacy Concerns -> Trust in Social Media	0.664	0.057	11.712	0.000	Accepted
Privacy Value -> Trust on Social Media	0.331	0.041	8.073	0.000	Accepted

5. Discussion and Conclusion

Although the model of this study has been newly developed, the analyzed data shows that the study got significant findings. The developed hypotheses of the study are valid and supported by the earlier research to a greater extent. The findings of hypothesis 1 revealed the positive impact of privacy control on trust on social media. Earlier studies validate this relationship. [Bioglio et al. \(2018\)](#) emphasized the need for privacy protection on social networks to boost users' trust in the platform. According to [Voloch et al. \(2019\)](#), people who are very skeptical of their confidentiality on social networking sites are apprehensive about the conditions and guidelines of any social networking program. According to [Boshrooyeh et al. \(2020\)](#), when visitors' data is kept private, there is an improvement in user confidence in social media. [Zhang et al. \(2020\)](#) emphasized that social media platforms must inform users of all necessary data on privacy controls to obtain their consent and access to their information. [Wang et al. \(2018\)](#) concluded that the breach in the information posted on social media caused people to leave the platform. According to [Siddula et al. \(2020\)](#), many users are abandoning social media sites because they would not want to disclose their user activities to marketing firms. When people's communication process needs to be firmly secured, social networks can be used effectively. [Pelet and Taieb \(2017\)](#) emphasized that while social media networks are used for communication and interaction, internet services must protect user data. Dissatisfied users are less interested in privacy controls since they don't view information exchange as being confidential. This comparison and contrast show that these findings are significant.

Secondly, hypothesis 2 revealed the positive impact of privacy concerns on trust on social media. Earlier studies also validate this relationship. [Pensa et al. \(2019\)](#) emphasized that social media users constantly worry about their private data. [Han et al. \(2018\)](#) concluded that users' concerns about privacy controls are reasonable, given that each user wants to keep his personal information private. According to [Obar and Oeldorf-Hirsch \(2020\)](#), since social media networks retain users' personally identifiable information, they should have rigorous privacy controls. [Shi et al. \(2020\)](#) concluded that an improved exchange of information on social media would result from user confidence in their data security. [Kroll and Stieglitz \(2021\)](#) further claimed that social media users are responsible adults with accessibility to privacy settings that they may tailor to their needs. Online social platforms are intended to allow users to alter and update their details, asserted by [Moustaka et al. \(2018\)](#). According to [Zhang et al. \(2021\)](#), the utilization of social media for networking will expand once users are confident that their data is safe from prying eyes. Top encoding has become a crucial component of social media since it allows people to determine whether or not their data is protected. [Oghazi et al. \(2020\)](#) also emphasized the need to use social media successfully for information sharing and for users to maintain a high level of security on these platforms. Indeed, this comparison and contrast show that these findings are significant.

Thirdly, hypothesis 3 revealed the positive impact of privacy value on trust on social media. Besides, this relationship is validated by earlier studies. [Shi et al. \(2020\)](#) concluded that confidentiality is a significant worry for Facebook users. According to the research by [Fan et al. \(2020\)](#), users value social media privacy & information exchange when they can access their work in a useful way. According to [Jozani et al. \(2020\)](#), users of all social media platforms cherish their personal because they believe it is essential to their ability to operate on social media. According to [Takhshid \(2020\)](#), users are constantly encouraged to utilize programs that are good at managing privacy. Thus the information supplied on these social networks and services should be private. Users have trouble with the limited privacy controls on social networking sites and lack the motivation to use these programs for better performance. [Abokhodair and Hodges \(2019\)](#) concluded that user trust in social media networks is

essential and that long-lasting relationships between clients and service providers can only be built on this confidence. The exchange of information on social networks depends on privacy controls because without these, users' confidence wanes, and they jump from one network to another (Abokhodair & Hodges, 2019; Tsay-Vogel et al., 2018). Vgena et al. (2022) also showed that effective privacy controls are required for social media networks for information to be shared in a useful manner. Finally, this comparison and contrast show that these findings are significant.

6. Theoretical and Practical Implications

This research on trust in social media has practical and theoretical implications. Based on these implications, not only the knowledge of social media and privacy is enriched, but the practice implications help provide a direction to the social media administration to care about the users' privacy concerns. This study has introduced newly developed positive relationships. This study has introduced the direct positive influence of privacy control on trust in social media in the literature that wasn't highlighted by the earlier studies. Furthermore, the study has introduced the direct positive influence of privacy concerns on trust in social media knowledge that wasn't emphasized by the previous studies. Finally, this critical research has presented the direct positive influence of privacy value on trust in social media in the literature that wasn't highlighted by the earlier studies. These relationships are the best outcomes of this study and are a significant addition to the body of knowledge. Furthermore, this research also enriched the literature with this significant research model of trust on social media, as the earlier studies haven't discussed trust on social media from the perspective of students considering the impact of privacy concerns, privacy value, and privacy control.

Accordingly, current research has remarkable practical implications for improving student trust in social media. In this way, the administration of social networks must share all the information of privacy with the users to ensure that they agree to the information sharing. Furthermore, the access of these networks to the phone storage should be according to the customized requirements of the users because it would provide them with a better understanding of social media.

Furthermore, the research has highlighted that the social media administration is required to protect the users' privacy with modern techniques that would facilitate a better user experience of social media. Indeed, this privacy control shouldn't only be limited to the students, but every user of social media networks must be provided with effective resources to protect social media networks. These social media networks should be confidential, and the administration should value the users' privacy because it matters a lot for the users to make decisions about using these social networking applications. The access to the phone data must be secured, and no third party would be allowed on behalf of these social media network access to get the data and information about the users. By working on these requirements, social networking websites can become more secure for users to share credible information and get a better experience.

7. Future Directions

The framework of this study for trust in social media is newly developed in the literature that is a significant addition to the body of knowledge. The research framework of this study has significant theoretical implications in the body of knowledge that weren't discussed by the earlier studies. However, the study has presented its limitations with future directions appropriate for improving the trust model on social media networks. The research has investigated the direct and positive impact of privacy control on trust on social media, which is significant. Still, it has not tested any moderating and mediating impact on this relationship. Thus, the researchers are recommended to use the moderating relationship of cybercrime between privacy control and trust on social media. Also, the research has examined the direct and positive impact of privacy concerns on trust on social media, which is significant. Still, it has not tested any moderating and mediating impact on this relationship. Therefore, the scholars are suggested to use the mediating relationship of social media usage awareness between privacy concerns and trust on social media. Finally, this study has collected cross-sectional data from the students of "Qassim University" only; thus, the researchers are required to collect data from the college students to validate the findings of this study.

8. Acknowledgment

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