JOURNAL OF SOCIAL SCIENCES DEVELOPMENT

www.jssd.org.pk   editor@jssd.org.pk

THE INFLUENCE OF SOCIAL MEDIA ON SOCIAL INTERACTIONS AMONG UNIVERSITY STUDENTS WITH FAMILY & SOCIAL CIRCLE

Shahid Ullah[1], Robina Roshan[2] & Komal Mehreen[3]

[1]PhD Scholar, Communication & Media Studies, Gomal University Dera Ismail Khan, Pakistan
[2]Assistant Professor, Communication & Media Studies Gomal University Dera Ismail Khan
[3]Visiting Lecturer, Communication & Media Studies, Thal University Bhakkar, Pakistan

KEYWORDS	ABSTRACT
Social-Media, Internet, Social Interactions, Social Relationships, Family, Social Circle, University Students	The current study aimed to investigate the effects of social media on social interactions among university students in KP with family and social circle. The objectives include, to examine the new pattern of social media for social relationship, association of gender communication pattern with family and social circle with respect to social interactions by using the survey research design. A sample of 900 students (270 male & 630 female) were selected over stratified sampling method. A questionnaire was used to collect the primary data. The descriptive statistics and inferential statistics were used for data analysis. The study concluded that majority of the male students frequently communicate with friend whereas female students sometime communicate with friends. Majority of male and female students frequently communicate with classmate. The majority of male and female students communicate with peers and never communicate with classmate. Majority of male and female students sometime communicate with religious scholar. Therefore, the study concluded that both male and female frequently interact through the social media with family and social circle but still physical interactions exist with in family.
ARTICLE HISTORY	**2024 Journal of Social Sciences Development**
Corresponding Author	Shahid Ullah
Email:	Shahidkhattak038@gmail.com
DOI	https://doi.org/10.53664/JSSD/03-03-2024-07-78-89

INTRODUCTION

The technology revolution and societies dynamics are interrelated wherein the family concepts are changing with advancement in the technology (Zhang, Tang & Liu, 2023). According to research studies communication process and information sharing means redefined by modern technologies which even compel the classical figure of family to modify their life activities (Hamid, Kusuma & Wulan, 2024). The information technologies revolutions restructured social relationships and

individual's interactions (Zachos, Kollia & Anagnos, 2018). The growth of technology was started when web 2.0 were introduced in the world but technology drastically changed communication pattern in the last two decades. Internet and social media changing the nature of interactions and social relationships continuously. In this linking, research reveals that children attachment towards parents inversely proportion with the time spent on social media. Another study shows that due to high usage of internet, now children have no time to participate in the family activities (Li & Wong., 2020). In this regard, Pakistani community is very strong in the sense of relationships and in-person communication, still, the invention of internet and introductions of social media is bringing change in our communities.

The researcher wants to study the change in communication pattern that either due to social media use our communication pattern and that how use of this new technology affects our communication pattern (Al-Khaddam, 2013). Students utilize social networking sites and applications on a regular basis. They use these websites on a daily basis and spend a lot of time on them. Research found that university students use social networking more than students in other age groups (Azizi, Soroush & Khatony, 2019). The students can connect with different people and share information with them as well. Student learning results may benefit from this (Azzaak, 2023). The social media is a widely used, informal, online platform that is accessible to individuals from all the social classes worldwide (Hamid, Kusuma & Wulan, 2024). It enables the communication and exchange of ideas, emotions, private information, pictures, videos, and other media between individuals or groups participating in online communities. The quick progress of social media, Wi-Fi hotspots, and internet has created new prospects, but it has given rise to new worries for parents, teachers, and students. It is argued that using internet at home reduces the amount of time spent socializing and spending time with friends and family.

LITERATURE REVIEW

The use of social media has taken center stage in people's lives in fast-expanding digital era. Social media sites, like Facebook, Instagram, WhatsApp, and Twitter, have emerged as primary channels for people to communicate, exchange information, and develop social bonds. The patterns of social contact in society are greatly impacted by social media use, how we communicate (Ye, Ho, Wakab & Kato, 2023). Many investigations were carried out to examine links amid social media usage and modifications in societal social interaction patterns. Hampton, Goulet, Rainie and Purcell (2019) revealed that social media use has a good and bad impact on social interaction patterns. According to their findings, social media use can impede more personal interpersonal interactions and result in social isolation, even though it can also help people form larger ties and widen their social circle. Ellison, Steinfield, and Lampe (2011) underlined the significance of realizing impact of social media use on caliber of interpersonal connections. This study reveals how social relations & communication styles among students, peers, families, and social circles can be impacted by use of social media that has changed how we communicate, grown the social networks and created previously unheard-of patterns of engagement.

These effects, nevertheless, may have intricate ramifications and profoundly alter social dynamics in society. Transition from in-person social interactions to virtual ones via social media. People can

interact with people from diverse social, cultural, and geographic backgrounds in virtual world. By connecting with organizations that have similar interests and values, people can utilize social media to expand their social circle beyond geographical limits (Hall, Kearney & Xing, 2019). It brings about significant changes to how people, communities, and organizations communicate. The level of social engagement and its quality. Social media communication frequently takes the form of text, pictures, or quick videos, which might lessen interpersonal communication's verbal and nonverbal components. This may occasionally result in loss of communication nuance, misunderstandings, or a decrease in comprehension that might happen in face-to-face interactions. Hall's (2018) revealed that social interaction is a dynamic social relationship that involves relationships between people or amid people and other people or groups. Fischer and Reuber (2011) claimed that social processes are dynamic social relationships based on efforts of members and certain interactional components. Moreover, there are several types of social interaction, including accommodation, competitiveness, cooperation & conflict.

Building and sustaining social relationships, learning about and comprehending the world around us, and attending to the social and emotional needs of people all depend on social contact. Because constructive social engagement can foster social and enjoyment & promote feelings of connection, it can have an impact on mental health and individual well-being. A person's ability to develop, communicates, and exchange ideas and information in online groups and networks is referred to as using social media (Whiting & Williams, 2013). The term "social media" refers to a collection of the Web 2.0-based applications that enable production & sharing of user-generated content (Kaplan & Haenlein, 2010). The social media can be accessed via web and mobile technologies, enabling the creation of highly participatory platforms where people can share, co-create, discuss, and edit information created by others (Kietzmann et al., 2011). Building social bonds, fostering coherence, and fostering networking among people who have similar associations and interests all depend on social interaction. Social relationships are being influenced and made easier by social media. The impact adapts landscape of social contact that benefits young & students (Akram & Kumar, 2017). The majority of time spent on social media is used for social activities aimed at fostering social links (Dahdal, 2020).

Research Hypothesis
H1:   It is more likely that there is significant association between respondent and internet usage.
H2:   It is more likely that there is significant association between social media (communication) and social relationship (family & social circle).

RESEARCH METHODOLOGY
This section entails the methodological procedure employed for the present study. This cover up the research philosophy and design, population of the study with sampling procedure, data collection and statistical tools for data analysis. According to Creswell and Creswell (2017) research design is a process which entails the identification of population; determine the representative sample size, instrumentation for data collection & data analysis. According to Williams (2007) research design is blue print or framework for conducting the research study for obtaining the required information /data to resolve the research problem. Thus, the present study aimed to investigate the changing

communication pattern of social relationships and social media effect on the students at university level. Therefore, the present study was quantitative and descriptive in nature. According Saunders, Lewis, Thornhill and Bristow (2015) descriptive research is one of the most widely used and suitable research designs which provides the detailed information of the nature, conditions, and scope of the current situation. These methods & procedures and methods are important for conducting research & reaching conclusion.

Population of Study

According to Creswell and Creswell (2017) population is made up of people or objects or any entity that the study will focus on in order to achieve its intended goals. According to sampling criteria provided by the researcher, a population is a full group of elements, people, or objects that share some traits. In order to meet the range criteria for group, World Health Organization (2013) defined that population as one that could be taken for a thorough examination to meet the range of criteria of the group. The present study aimed to investigate the changing communication pattern of social relationships and social media effect on the students at university level. In current study, five well reputed universities were selected (as per HEC ranking) of the KP including, Gomal University D.I. Khan, University of Peshawar, Agriculture University Peshawar, Hazara University Mansehra and AUKUM, Mardan.

Table 1 Population of Study

University	Students		Source
	Male	Female	
Gomal University, D.I. Khan	3352	14286	http://www.gu.edu.pk/
University of Peshawar	3689	16805	https://www.uetpeshawar.edu.pk/
Agriculture university Peshawar	1014	10248	https://www.ustb.edu.pk/
Abdul Wali Khan University Mardan	3036	8644	https://www.ulm.edu.pk
Total	16881	55069	71970

Sample & Sampling Method

A sample that was really used to collect data is a subset of the population (Umar & Usman, 2013). An organized method for selecting a sample from target population is called a sampling technique (Rahi, 2017). Using a stratified selection technique, 900 students (270 females and 630 males) were selected as study's sample. An appropriate methodology was used in this study because the sample was selected based on university stratification and the population is dispersed. Stratified sampling is a probability sampling approach that is applied in sample surveys, according to Sekaran and Bougie (2013).

Table 2 University Wise Sample Distribution

University	Female	Male	Total
Gomal University, D.I. Khan	44	186	230
University of Peshawar	48	218	266
Agriculture University Peshawar	38	133	171
Abdul Wali Khan University Mardan	53	17	70
Total	270	630	900

Data Collection

According to Olsen (2011) data collection is a systematic process of gathering data on the research variable. Data collection means identifying and selecting individuals for the study, obtaining their permission to study them, and gathering the information by asking the questions or observing their behavior (Creswell & Creswell, 2017; Olsen, 2011). The data was collected from the students from sample districts. Therefore, the process of data collection took three months commencing from April 2023 to June 2023. Researcher personally visited the sample universities and collected data from the students.

RESULTS OF STUDY

This deals with data analysis and interpretation of statistical results & covered detail of respondents' demographic attributes with the frequency, percentage and graph while next section comprised inferential statistics

Table 3 Frequent Usage of Internet by Male & Female

Gender	N	Mean	χ^2	Sig	Cramer's V
Female	121	2.01	18.056	.000	.217
Male	261	2.19			

Association (relationship) between the frequent usage of internet and gender by applying Chi-Square statistics shows in table 11. The table infers that both female (Mean=2.01) and male (Mean= 2.19) using frequent internet. The value of Chi-Square (χ^2) estimated 18.056 with p=.000<.05 which reveals that significant association was found between gender and frequent use of internet. The value of Cramer's V was estimated .217 found that there is strong association between internet usage and gender.

Table 4 Association between Usage of Different Devices for Internet & Gender

Device	Gender	Mean	χ^2	Sig	Cramer's V
Personal Smartphone	Female	226.1	18.05	.000	.232
	Male	2.07			
Parents Smartphone	Female	3.86	16.10	.019	.193
	Male	3.93			
friend's smart phone	Female	3.99	13.75	.001	.190
	Male	3.96			
Personal Laptop	Female	2.63	6.30	.177	.129
	Male	2.65			
Parent's laptop	Female	3.95	10.96	.027	.169
	Male	3.87			
Friends' laptop	Female	3.80	18.17	.001	.218
	Male	3.97			

Association (relationship) between the usage of internet for social relationship through different devices and gender by applying Chi-Square statistics shows in table 12. The table infers that both female (Mean=2.42) & male (Mean=2.07) using frequent internet from their personal smart phone.

Value of Chi-Square ($\chi2$) estimated 18.056 with p=.000<.05 reveals that significant association was found usage of internet from personal smart phone for social relationship through different devices and gender. The table depicts that majority of students (305) never used smart phone of parents for social networking ($\chi2$=16.10 with p=.000<.019). Most of the students (349) used smart phone of parents for social networking ($\chi2$=13.75 with p=.001<.05). Most of students (203) used sometime their personal laptop phone of their parents for the social networking ($\chi2$=6.30 with p=.177>.05). The majority of students (240) never used parents' laptop for social networking ($\chi2$= 10.96 with p=.027<.05). Majority of students (351) never used friends' laptop for social networking ($\chi2$=18/17 with p=.001<.05).

Table 5 Associations between Gender & Social Media Usage

Gender	N	Mean	$\chi2$	Sig	Cramer's V
Female	331	2.01	18.056	.000	.217
Male	569	2.19			

Association (relationship) between the social media usage and gender by applying Chi-Square statistics shows in the table 13. The table infers that both female (Mean=2.01) and male (Mean~2.19) using frequent social media. Value of Chi-Square ($\chi2$) estimated 18.056 with p=.000<.05 which reveals that significant association was found between the gender and frequent use of social media. The value of Cramer's V was estimated .217 found that there is strong association amid social media usage and gender.

Table 6 Association between Respondent Age & Social-Media

Respondent age	Gender	Mean	$\chi2$	Sig	Cramer's V
15-20	Female	2.33	29.47	.000	.278
	Male	2.54			
21-25	Female	2.11	28.29	.000	.272
	Male	2.72			
26- above	Female	2.46	12.33	.015	.180
	Male	2.31			

Association between the age of respondent and social media usage for communication shows in the table 14. The table infers that majority of female (Mean=2.33) and male students (Mean=2.54) at age of 15-20 frequently communicate over social media with family and social circle ($\chi2$=29.47, p=.000). The age group 21-25 of respondent majority of female (Mean=2.11) and male students (Mean=2.72) frequently communicate with family and social circle over social media ($\chi2$=28.29, p=.000). The result reveals that significantly female (Mean=2.46) and male students (Mean=2.31) of age of 26 and above frequently communicate with family & social circle over social media ($\chi2$= 12.33, p=.015).

Table 7 Association between Educational Qualification and Social-Media

Educational qualification	Gender	Mean	$\chi2$	Sig	Cramer's V
Under Graduate	Female	2.29	30.34	.000	.244

	Male	3.54			
Graduate	Female	2.11	42.53	.000	.283
	Male				
Post Graduate	Female	2.19	21.33	.236	.236
	Male	4.39			

Association between respondent social economic status and communication through social media shows in table 15. The value of Chi-Square (χ2) was estimated 30.34 with p=.000<.05 reveals that significant association between social media usage and educational qualification. The value of Chi-Square (χ2) was estimated 42.53 with p=.000<.05 which reveals that significant association between the undergraduate respondents and social media usage. The value of Chi-Square (χ2) was estimated 13.74 with p=.008<.05 reveals that significant association amid graduate respondents and social media use for communication. The value of Chi-Square (χ2) was estimated 21.33 with p=.235>.05 reveals that no significant association between post graduate respondent and social media interactions.

Table 8 Association between Social Economic Status & Social Media Usage

Device	Gender	Mean	χ2	Sig	Cramer's V
Less than 20,000	Female	226.1	18.05	.000	.232
	Male	2.07			
20,000 – 40,000	Female	3.86	16.10	.019	.193
	Male	3.93			
40,000 – 60,000	Female	3.99	13.75	.001	.190
	Male	3.96			
60,000 – 80,000	Female	2.63	6.30	.177	.129
	Male	2.65			
80,000 – 100,000	Female	3.95	10.96	.027	.169
	Male	3.87			
100,000 – above	Female	3.80	18.17	.001	.218
	Male	3.97			

Association (relationship) between the usage of social media and gender by applying Chi-Square statistics shows in table 16. The table infers that both female (Mean=2.42) and male (Mean=2.07) using frequent media. Value of Chi-Square (χ2) estimated 18.056 with p=.000<.05 which reveals that association was found usage of social media and WhatsApp for social relationship by gender. The table depicts majority of students very low usage of x/Twitter for social relationship (χ2=16.10 with p=.000<.019). Most of the students (349) not used Instagram for social relationships (χ2=13.75 with p=.001<.05), students (203) used sometime Facebook for social relationships (χ2=6.30 with p=.177>.05).

Table 9 Association between Residential Pattern & Social-Media

Residential Pattern	Gender	Mean	χ2	Sig	Cramer's V
With Family	Female	2.33	30.34	.000	.282

	Male	2.54			
Hostel life	Female	2.11	42.53	.000	.334
	Male	2.72			

Association between the social media usage and family residential pattern shows in the table 17. The table infers that both female (Mean=2.33) and male (Mean 2.54) living in hostel mostly communicate through social media in family and social circle (χ2=30.34 with p=.000<.05). In addition, both male (Mean=2.11) and female (Mean=2.72) sometime communicate through social media with family and mostly communicate over social media having stay with family (χ2=42.53 with p=.000<.05).

Table 10 Association Amid gender's Communication Pattern & Family Type

Type of family	Gender	Mean	χ2	Sig	Cramer's V
Immediate family	Female	2.95	30.8	.000	.284
	Male	2.97			
Extended family	Female	2.73	46.52	.000	.349
	Male	2.25			

Association between the association between gender Communication pattern (social media) and family type shows in the table 18. The table infers that both female (Mean=2.95) and male (Mean 2.97) frequently communicate social media in immediate family (χ2=30.8 with p=.000<.05). In this connection, in addition to this, the both female (Mean=2.73) and male (Mean=2.25) frequently interact with the social media with family members in extended type of family (χ2=46.52 with p=.000<.05).

Table 11 Association Amid gender's Communication Pattern & Social Circle

Social Circle	Gender	Mean	χ2	Sig	Cramer's V
Friends	Female	2.33	29.47	.000	.278
	Male	2.54			
Classmate	Female	2.11	28.29	.000	.272
	Male	2.72			
peers	Female	2.46	12.33	.015	.180
	Male	2.31			
Unknown friends	Female	4.19	11.23	.011	.171
	Male	4.11			
Religious scholars	Female	3.28	27.72	.000	.269
	Male	3.22			

Association between the association between the gender Communication pattern (social media) and social circle shows in the table 19. The table infers that majority of female (Mean=2.33) and male students (Mean=2.54) frequently communicate with friends through social media (χ2=29.47, p=.000). Majority of female (Mean=2.11) and male students (Mean=2.72) frequently communicate with classmate through social media (χ2=28.29, p=.000). The result reveals that most of female (Mean=2.46) male students (Mean=2.31) communicate with peers over social media (χ2=12.33,

p=.015). The result shows that majority of female (Mean=4.19) and male students (Mean=4.11) never communicate with friends over social media ($\chi2$=11.23, p=.000). Majority of female (Mean=3.28) and male students (Mean=3.22) sometime communicate with religious scholars over social media ($\chi2$=27.72, p=.000).

DISCUSSION

The social media platforms are invaluable in social interaction among students and social circle. In fact, by interacting with learning communities and other educational systems, students are given several opportunities to enhance their education and gain access to the most recent information (Li & Wong., 2020). The students can connect with different people and share information with them as well. Socially, the students can participate well when they are allowed to contribute, share ideas, and get involved in the social dialogue (Zhang, Tang & Liu, 2023). But on the other hand, frequent use of social media also negatively influences the direct interaction or physical interaction (Hamid, Kusuma & Wulan, 2024). Thus, the present study was aim to investigate the effects of social media on social interactions of KP universities students with family & social circle. The study conducted in five higher education institutions in Khyber Pakhtunkhwa and data was collected from students through questionnaire. It helps to analyze existing studies on benefits (maintaining long-distance friendships, building social capital) and drawbacks (e.g., decreased social skills, online addiction) of social media use.

The result of the study shows that reveals that male and female students frequently communicate through social media in immediate family. Additionally, the result also shows that both male and female frequently interacting through social media with family members. The result also shows that students mostly use social networking for interaction with family, friends and Peer groups. The result of study is online with Lahikainen (2017). The ability to share information, shape opinions, link people and communities, and encourage active engagement makes the social media a crucial instrument for various forms of communication (Hall, Kearney & Xing, 2019). They found that it is clear that social media platforms can have both beneficial and detrimental effects on integration of families. The result of study is in line with Aligwe (2017). It provides insights into both advantages (e.g., staying connected) and disadvantages (e.g., social isolation) of social media use. They found that physical interaction is affected due to frequent use of social media by the students. They found that students who spend more time on social media and less time interacting with people in person tend to be lonely.

CONCLUSION

The study aimed to measure "effects of social media on social interactions of students in universities with family and social circle" and to check significant relationship of communication pattern with family and social circle. The study concluded that both male and female students frequently use internet from their personal smart phone. The study concluded that both male and female mostly communicate through social media in immediate family. In addition, both male & female sometime interact over social media with family members in extended type of family. The study concluded that majority of male students often communicate with friend whereas female students sometime

communicate with the friends. Majority of male and female students frequently communicate with classmate. Majority of male and female students frequently communicate with peers and male and female students never communicate with classmate. Majority of male & female students sometime communicate with the religious scholar. The study concluded that both male and female students frequently communicate social media in immediate family. In this connection, majority of male and female students communicate never communicate unknown with unknown friends through social media. Therefore, most of male and female students communicate lesser with the religious through the social media.

Recommendations

1. The study recommended that the students may avoid overly reliant on the social media and maintain the family interaction.
2. It indorses to keep balance amid social media and in-person interactions to avoid depriving them of fundamentals relationships.
3. The study was conducted in selected HEIs in KP. Therefore, similar study may be conducted in other universities in the region.
4. The study was led in public sector universities of KP. Thus, similar study may be conducted in private sectors universities of KP.
5. The study was conducted in HEIs in KP. This study may be replicated at Colleges and Schools level or another province of Pakistan.

REFERENCES

Akram, W., & Kumar, R. (2017). A study on positive and negative effects of social media on society. *International journal of computer sciences and engineering*, 5(10), 351-354.

Al-Khaddam, H. K. (2013). Impact of social networks on interpersonal communication of students University College Irbid Girls: Facebook as model. *Cross-Cultural Communication*, 9(5), 17.

Al-Rahmi, A. M., Shamsuddin, A., Wahab, E., Rahmi, W. M., Alyoussef, I. Y., & Crawford, J. (2022). Social media use in higher education: Building a structural equation model for student satisfaction and performance. *Frontiers in public health*, 10, 1003007.

Azizi, S. M., Soroush, A., & Khatony, A. (2019). The relationship between the social networking addiction and academic performance in the Iranian students of medical sciences: A cross-sectional study. *BMC psychology*, 7, 1-8.

Azzaak, H. K. (2023). The Impact of Social Media Use on Social Interaction in Contemporary Society. *Technology and Society Perspectives* (TACIT), 1(1), 1-9.

Bala, K. (2014). Social media and changing communication patterns. *Global Media Journal: Indian Edition*, 5(1).

Creswell, J. W., & Creswell, J. D. (2017). Research design: Qualitative, quantitative, and mixed methods approach. *Sage publications*.

Crossan, F. (2003). Research philosophy: towards an understanding. *Nurse Researcher* (through 2013), 11(1), 46.

Dahdal, S. (2020). Using the WhatsApp social media application for active learning. *Journal of Educational Technology Systems*, 49(2), 239-249.

Edosomwan, S., Prakasan, S. K., Kouame, D., Watson, J., & Seymour, T. (2011). The history of social media & impact on business. *Journal of Applied Management & entrepreneurship*, 16(3), 79.

Fischer, E., & Reuber, A. R. (2011). Social interaction via new social media:(How) can interactions on Twitter affect effectual thinking and behavior? *Journal of business venturing*, 26(1), 1-18.

Haenlein, M., & Kaplan, A. M. (2010). An empirical analysis of attitudinal and behavioral reactions toward the abandonment of unprofitable customer relationships. *Journal of Relationship Marketing*, 9(4), 200-228.

Hall, J. A., Kearney, M. W., & Xing, C. (2019). Two tests of social displacement through social media use. *Information, Communication & Society*, 22(10), 1396-1413.

Hamid, A., Kusuma, N. N., Wulan, A. A. (2024). Analysis of Social Media Usage in Enhancing Communication Collaboration in Educational Environments. *Indo-MathEdu Intellectuals Journal*, 5 (2), 1511-1522.

Hampton, K. N., Goulet, L. S., Rainie, L., & Purcell, K. (2019). Social networking sites and our lives. Pew Research Center's Internet and American Life Project: Report.

Hampton, K., & Wenhong, C. (2021). Studying social media from ego-centric perspective. Personal networks: Classic readings and new directions in ego-centric analysis.

Hurst, B., Wallace, R. R., & Nixon, S. B. (2013). The impact of social interaction on student learning. *Reading Horizons*.

Joosten, T., Pasquini, L., & Harness, L. (2013). Guiding social media at our institutions. *Planning for Higher Education*, 41(2), 125.

Kietzmann, J. H., Silvestre, B. S., McCarthy, I. P., & Pitt, L. F. (2012). Unpacking the social media phenomenon: towards a research agenda. *Journal of public affairs*, 12(2), 109-119.

Li, K. C., & Wong, B. T. M. (2020). Social media in higher education: A review of their uses, benefits and limitations. In Technology in Education. Innovations for Online Teaching Learning: 5th International Conference, ICTE 2020, China, August 19-22, 2020, Revised Selected Papers 5 (pp. 248-257). Springer Singapore.

Lu, J., & Churchill, D. (2014). The effect of social interaction on learning engagement in a social networking environment. *Interactive learning environments*, 22(4), 401-417.

Mkansi, M., & Acheampong, E. A. (2012). Research philosophy debates and classifications: students' dilemma. *Electronic journal of business research methods*, 10(2), 132-140.

Olsen, W. (2011). Data collection: Key debates and methods in social research. *Data Collection*, 1-248.

Pirzadeh, P., Lingard, H., & Blismas, N. (2020). Effective communication in the context of safe design decision making. *Safety science*, 131, 104913.

Rahi, S. (2017). Research design and methods: A systematic review of research paradigms, sampling issues and instruments development. *International Journal of Economics & Management Sciences*, 6(2), 1-5.

Saunders, M. N., Lewis, P., Thornhill, A., & Bristow, A. (2015). Understanding research philosophy and approaches to theory development.

Sekaran, U., & Bougie, R. (2016). Research methods for business: A skill building approach. john Wiley & sons.

Umar, H. S. I., & Usman, M. (2015). The imperative of population sampling in social science research. *Global Journal of Political and Science and Administration*, 3(3), 49-57.

Whiting, A., & Williams, D. (2013). Why people use social media: a uses and gratifications approach. *Qualitative market research: An international journal*, 16(4), 362-369.

Ye, S., Ho, K., Wakab, K., & Kato, Y. (2023). Relationship between university students' emotional expression on tweets and subjective well-being: considering the effects of their self-presentation and online communication skills. *BMC Public Health*. 23(1):594.

Zachos, G., Kollia, A., & Anagnos, I. (2018). Social media use in higher education: Review. *Education Sciences*, 8(4), 194.

Zhang, C., Tang, L., and Liu, Z. (2023). How social media usage affects psychological and subjective well-being: testing a moderated mediation model. *BMC Psychology*, 11, 286, 1-20.

Žukauskas, P., Vveinhardt, J., & Andriukaitienė, R. (2018). Philosophy and paradigm of scientific research. *Management culture and corporate social responsibility*, 121(13), 506-518.