



Do Demographic Factors Influence the Time Spent on Social Media? A Study Among the University Students of Arunachal Pradesh, India.

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Abstract

Social media usage has experienced significant growth over the years, offering numerous advantages. As its utility expands, social media has seen rapid adoption among students, this has led to numerous studies contributing valuable insights into its frequency and types. Hence, to add to the already existing knowledge, the current study examined social media usage within situational contexts, specifically exploring the times at which individuals engage with social media. Thus, aim to investigate whether there are disparities in social media usage across different demographic groups (age, gender and family type) of students. The present research work adopted exploratory research design to achieve the objective of the study. A convenient sampling technique was used to gather data from 547 participants enrolled in an institute of Arunachal Pradesh. Data was collected through a structured questionnaire. The Mann-Whitney U tests and Kruskal Wallis H test were used to compare groups. The study found no significant difference in social media usage across age groups within various situational contexts. However, it did uncover a notable gender difference, with male students displaying a greater inclination to use social media in public spaces compared to their female peers. The analysis further showed a significant difference in social media usage during academic-related periods among the four family types.

Keywords: social media, social networking sites, gender, family type.

1. Introduction

90% of young people in this generation are born to a technologically advancing world with sufficient social media usage knowledge (Duggan & Smith, 2013). College students, in particular are tethered to their mobile devices by social networking apps (Kuss & Griffihs, 2011). It is unsurprising that a significant demographic of these platforms comprises college students, aged 18 and 25 (Stankovska et al, 2016). Indeed, age has been shown to be a strong determinant of the frequency and quality of an individual's social

media usage and it's not surprising that younger people are more comfortable with online communication than adults (Thayer & Ray, 2006). Studies revealed that among the various age groups of students, university students are among the most using social networking (Azizi et al, 2019). Many studies around the world also reported significant finding about gender variations in social media usage among university students (Rafi et al, 2019). However, in a study by Huang et al (2013), it has been argued that with the increasing use of computing devices and social networking environments, the gender differences in the usage of the internet among younger users is decreasing stating this may be used as an indication of improvement in the maturity of the adoption of social media over previous published studies conducted during the last decade. Similarly, disparities between genders in social media usage have been found to be relatively minor since 2014 (Perrin, 2015). Most studies treat Social Networking Sites (SNS) users as homogeneous entity, ignoring potential differences however demographic variables such as gender can play a part in social media use, adoption and impact (Teo & Lim, 2000; Adam et al, 2004). For example, Women perceive more privacy risks and are more concerned about privacy in online environments than men when using SNSs (Hoy & Milne, 2013). Additionally female are mainly driven by the relational uses of social media, such as maintaining close ties and getting access to social information on close and distant networks however men base their continuance intentions on their ability to gain information of a general nature (Krasnova et al, 2017). When it comes to frequency, girls on average spend more time on social networking sites and use them more actively than boys (Burke et al, 2010; Misra et al, 2015). In terms of the choices of SNS applications, female preferred the use of Facebook and Twitter while males use music-sharing sites more (Kraut et al, 2002). Besides age and gender, the other variable that the study looks into is the family type. Few past research has delved into the relationship between family dynamics and social media, examining how social media use can either strengthen family connections or disrupts meaningful interactions within the family (Tariq et al, 2021). One study sought to understand whether the evolving modes of interaction on social media have a positive or negative impact on family functioning and the findings underscored the significance of parent's perception regarding social media and their ability to manage their own and their children's social media usage without detrimentally affecting family relationships (Procentese et al, 2019). Therefore, the present study attempts to explore if family type may also have an association with social media use among university students.

2. Research objective

The objective of the study is to investigate if there are any difference in the use of social media across different demographic variables (age, gender and family type). This paper examines social media usage across various situational contexts which can complement the existing body of knowledge in social media studies. Understanding social media usage within situational contexts is crucial for gaining insights into the intricacies of human behavior and uncover patterns and motivations in the digital age. In line with the objective, the following hypotheses are formulated:

H1: There is no significant difference in social media use across the age groups of the students.

H2: There is no significant difference among male and female students in their use of social media.

H3: There is no significant difference in social media use among students' family type.

3. Research Methodology

The present research work adopted exploratory research design to achieve the objective of the study. Through convenient sampling technique, data were collected by administering questionnaire through google form in an institute of Arunachal Pradesh. The sample size was determined as per Isreal (2003) from the population 22,979¹. The questionnaire consisted of two parts- demographic profile which included background information on the age, gender and family type of the respondent. Second part consisted Social Networking Time Use Scale (SONTUS) developed by Olufadi (2016) which was used to measure social media use. The scale comprehensively conceptualizes the time spent on social networking sites. This includes considering the motivations behind usage, as well as the specific contexts and situations in which individuals engage with these platforms. This multifaceted concept encompassing the five dimensions namely- Relaxation and Free Periods (RFP), Academic-Related Periods (ARP), Public-Place-Related Use (PPRU), Stress-Related Periods (SRP), and Motives for Use (MFU). The Cronbach's alpha coefficient for SONTUS was 0.85 which is considered to be reliable. Data entry and analysis were performed using Excel and SPSS version 27. The Mann-Whitney *U* tests and Kruskal Wallis *H* test were used to compare groups

4. Research Results

4.1: Demographic Profile

As shown in Table 1. 21% of the respondents belonged to the age group of 15-20 years old and 79% belonged to the age group of 21 to 25. Female respondents constituted of 36% while 64% were male. Table 1 also shows that majority of the respondents belong to single parent family which is 54.2%, 13.1% to nuclear family, 7.3% belongs to extended family and 25.4% belongs to joint family category.

Table 1. Demographic profile

		Frequency (N=547)	Percentage
Age (in years)	15-20	117	21
	21-25	430	79
Gender	Female	198	36
	Male	349	64
Family Type	Nuclear Family	72	13.1
	Single parent	300	54.2
	Extended family	40	7.3
	Joint family	135	25.4

Age and Social media use

4.2: Age, gender, family type and social media use

To evaluate the difference between age groups, Mann-Whitney-*U* test was utilized. The result indicated that there was no significant difference between the age groups and the time spent on social media during different periods. The test revealed insignificant differences in the age group 15-20 (Median=2, n=117) and 21-25 (median=2, n=430), $U=25263.50$, $Z=0.074$, $p=0.941$ in the time spend on social media during RFP. For ARP, age 15-20 (Median=2) and 21-25 (median=2), $U=26755.50$, $Z=1.107$, $p=0.268$ which shows insignificant differences. Similarly, in terms of PPRU, age 15-20 (Median=1) and 21-35(median=1), $U=25021.50$, $Z=-0.127$, $p=0.899$, SRP age 15-20 (Median=2) and 21-25 (median=2), $U= 25158.00$, $Z= 0.002$, $p= 0.998$ and MFU, age 15-20 (Median=1) and 21-35(median=1), $U=25019.50$, $Z=-0.100$, $p=0.920$ all shows insignificant differences. (See table 2). Hence H1 was supported.

Table 2: Summary of differences between the age groups of students
(Mann-Whitney *U* test)

Time spends on social media	Age Groups				U	Z	P-value
	Median		Median				
	15-20 (N=117)		21-25 (N=430)				
	Mean rank	Mdn	Mean rank	Mdn			
RFP	273.07	2	274.25	2	25263.50	0.074	0.941
ARP	260.32	2	277.72	2	26755.50	1.107	0.268
PPRU	275.14	1	273.69	1	25021.50	-0.127	0.899
SRP	273.97	2	274.01	2	25158.00	0.002	0.998
MFU	275.16	1	273.68	1	25019.50	-0.100	0.920

Note: * $p<.05$, ** $P<.001$

Gender and Social media

The test revealed insignificant differences between male (Median=2) and female (median=2) for social media use during RFP, $U= 36500.5$, $Z= 1.14$, $p= 0.254$ and ARP, $U= 34222.5$, $Z=-0.194$, $P= 0.846$. The result however shows a significant difference between male (Media=1) and female(median=1) for PPRU, $U=38738.5$, $Z=3.407$, $p<0.01$. For SRP, male (median=2) and female(median=2) showed no significant difference, $U=32541.5$, $Z=-1.193$, $P=0.233$. Similarly, there was no significance differences for MFU, $U= 33129.5$, $Z=-0.371$, $P=0.371$ between male(median=1) and female(median=1) (See table 3). Hence the H2 was not fully supported.

Table 3: Summary of differences between male and female students. (Mann-Whitney *U* test)

Time spends on social media	Gender				U	Z	P-value
	Female (N= 198)		Male (N=349)				
	Mean rank	Mdn	Mean rank	Mdn			
RFP	264.15	2	279.59	2	36500.5	1.14	0.254
ARP	275.66	2	273.06	2	34222.5	-0.194	0.846
PPRU	252.85	1	286	1	38738.5	3.407	**
SRP	284.15	2	268.24	2	32541.5	-1.193	0.233
MFU	281.18	1	269.93	1	33129.5	-0.894	0.371

Note: **P<.001

Family Type and Social media

To evaluate the differences across the four family types for social media use, Kruskal-Wallis *H* test was used. The test revealed a statistically significant difference in social media use during ARP across the four family types, $H(3) = 9.467$, $p < .05$. There were no significant differences found among the other social media situational context across groups: RFP ($H(3) = 2.25$, $P = 0.52$), PPRU ($H(1) = 0.07$, $P = 0.07$), SRP ($H(2) = 11.87$, $P = 0.10$) and MFU ($H(1) = 1.093$, $P = 0.77$). (See table 4). Therefore, the H3 was not supported fully.

Table 4: Summary of differences between family type. (Kruskal-Wallis H Test)

Time spends on social media	Family type								H	χ^2	P-value
	Nuclear family (N= 72, $df=3$)		Single parent (N=300, $df=3$)		Extended family (N=40, $df=3$)		Joint family (N=135, $df=3$)				
	Mean rank	Mdn	Mean rank	Mdn	Mean rank	Mdn	Mean rank	Mdn			
RFP	296.42	3	272.5	2	279.39	2	263.78	2	2.252	1.716	0.52
ARP	312.09	2	265.33	2	314.41	2	260.97	2	9.467	11.069	*
PPRU	299.34	1	267.38	1	253	1	281.41	1	7.061	6.982	0.07
SRP	312.13	2	271.49	2	277.35	2	258.25	2	6.256	11.87	0.1
MFU	279.24	1	276.63	1	253.4	1	271.48	1	1.093	0.84	0.77

Note: *p<.05, **P<.001

5. Discussion

The present study found no discernible variance in social media usage across different age groups. This contradicts the findings of numerous prior studies investigating the relationship between age and social media (Thayer & Ray, 2006; Azizi et al, 2019). Research indicates that the discrepancy in social media usage across age groups has considerably diminished over the past decade. Example, while young adults were initially at the forefront of social media adoption and remain active users, usage among older adults has surged as well (Pew research, 2021). This study also revealed that male students exhibited significantly higher usage of social media in public places. This contrast with a study that found no gender-based differences in social media usage in public contexts (Bernard, 2020). However, aligns with previous research indicating that SNS behavior varies by gender (Ryan et al, 2014), with another suggesting that female contributes more to social media use on average compared to male (Burke et al, 2010; Misra et al, 2015). However, no significant differences were observed in the usage of social media in other social media use situational context of the study, which could be attributed to the notion proposed by Huang et al (2013) that the gender disparities in internet usage among younger users are diminishing due to increased use of computing devices and social networking platforms. This trend may indicate an advancement in the maturity of social media adoption compared to studies conducted in the past decade, as evidenced by the Pew report (Perrin, 2015). The other finding pertains to variations in social media usage for academic purposes across different family types. This warrants further exploration in future studies.

6. Conclusion

The purpose of this study was to investigate if there are any differences in the use of social media across different demographic variables. The findings indicate that males tend to utilize social media more frequently in public settings compared to females, furthermore, there were variations across family type academic related social media use. However, no disparities in social media use were observed based on age of students.

7. Recommendations and Limitations

The present study has several limitations that should be addressed with future research. Firstly, the study focused solely on one institute in Arunachal Pradesh. Thus, there exist a significant opportunity for further investigation utilizing sample sizes drawn from diverse colleges and universities for its generalizability. Secondly, the assessment of the participants relied only on questionnaire. Consequently, future studies could benefit from incorporating alternative methodologies such as interviews to complement the findings. Thirdly, the majority of the participants were concentrated within a specific age bracket, potentially limiting the generalizability of the results across all age groups.

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