Multidimensional Attitudes of Young Adults' Digital Gadget Usage: An Empirical Analysis of Demographic Differentials in Coimbatore

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Abstract—**Background: Digital gadgets have become an integral part of young adults' daily lives, yet concerns about addiction and its demographic differentials remain underexplored in the Indian context.**
Aim: To empirically analyze the multidimensional attitudes of young adults towards digital gadget usage based on demographic differentials in Coimbatore.
Methods: A quantitative, cross-sectional research design was employed. Data were collected from 500 young adults aged 18 -30 years using a structured questionnaire measuring four attitude dimensions: Perceived Benefit Attitude, Emotional Reliance Attitude, Compulsive Engagement Attitude, and Job-Driven Attitude. Independent samples t-tests were used to analyze differences based on gender and marital status.
Results: Gender significantly influenced only Compulsive Engagement Attitude ($t = 3.410$, $p = 0.001$), with males ($M = 3.7000$) showing higher compulsive engagement than females ($M = 3.4393$). No significant gender differences were found for Perceived Benefit, Emotional Reliance, or Job-Driven attitudes. Marital status significantly influenced Perceived Benefit Attitude ($t = -2.909$, $p = 0.004$), with married respondents ($M = 4.0615$) reporting higher perceived benefits than single respondents ($M = 3.7362$).
Conclusion: Demographic factors selectively influence digital attitudes. Compulsive engagement is gender-sensitive, while perceived benefits are marital status-sensitive. These findings have implications for targeted digital wellness interventions.

Index Terms—**Digital gadget addiction, young adults, gender differences, marital status, compulsive engagement, perceived benefit**

I. BACKGROUND OF THE STUDY

Digital gadgets such as smartphones, laptops, and tablets have become an integral part of daily life, particularly among young adults. While these devices offer numerous benefits in terms of communication, entertainment, and productivity, there is growing concern about their addictive potential and the adverse effects on youth well-being [5]. This concern is especially relevant in India, which has one of the largest internet user bases in the world, and where initiatives like the Digital India Program have accelerated technology adoption even in rural areas [7]. Research has shown that demographic factors such as age, gender, education, and geographic location significantly influence how individuals engage with digital technologies [2],[1]. Moreover, excessive gadget use has been linked to serious health issues, including sleep problems, particularly among females who spend more than two hours daily on smartphones [4].

II. REVIEW OF LITERATURE

Kumar and Sherkhane (2018) assessed gadget addiction among 200 undergraduates and found that 90.5% used smartphones, 50.2% used them for over 7 hours daily, 61% reported difficulty in work performance, and females were more prone to addiction. Mude and Undale (2023) compared social media usage between Gen Y and Gen Z in India and found that Gen Z uses social media more for education, entertainment, shopping, and socialization, while both generations use it equally for information seeking. Jain and Jindal (2023) investigated smartphone perceptions among 200 users in Delhi NCR and reported that demographic factors such as age, gender, income, and education significantly shaped attitudes, with females showing more favorable views. Beenu (2023) examined social media usage among 1,200 adolescents in Punjab and found

significant differences based on gender and geographic location. Miraclin et al. (2024) assessed digital gadget addiction among 1,100 young adults using the Digital Addiction Scale, reporting that smartphones were the most used device (96%) for social media (79%), with a combined severe and very severe addiction rate of 42%. Thangavel and Chandra (2024) studied the digital divide among 432 Indian e-commerce users and found that digital immigrants and digital natives differ in adoption approaches, though perceived usefulness drove adoption among immigrants. Sindakis and Showkat (2024) investigated rural technology adoption in Odisha and found higher digital adoption among females, challenging traditional gender disparities. Maurya et al. (2024) examined smartphone screen time and sleep problems among 16,292 adolescents and young adults, concluding that increased screen time, particularly among females, is associated with higher odds of sleep problems. Yogesh et al. (2024) conducted a study among 560 adolescents in Gujarat and found a 64.6% prevalence of smartphone addiction. Urban residence, higher socioeconomic status, non-authoritative parenting styles, and severe stress were significantly associated with addiction.

III.CONCEPTUAL FRAMEWORK

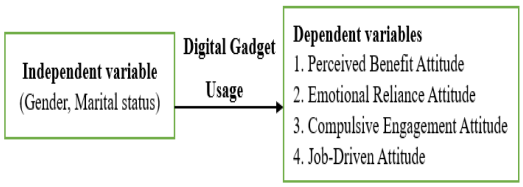

Fig: 1 Multidimensional Attitudes of Young Adults Towards Digital Gadgets Usage

IV. RESEARCH GAP

Despite the growing body of literature on digital gadget addiction among young adults in India, several significant gaps remain unaddressed. Most existing studies have focused primarily on addiction severity and general usage patterns, neglecting the multidimensional nature of digital attitudes such as perceived benefit, emotional reliance, compulsive engagement, and job-driven motivation. Furthermore, while gender differences have been reported, the findings remain inconsistent across studies. Most notably, the role of marital status in shaping digital gadget attitudes has not been explored by any previous research. Additionally, geographically, the city of Coimbatore, despite having a large young adult population, remains underrepresented in this domain. Therefore, the present study aims to fill these gaps by empirically analyzing the multidimensional attitudes of young adults in Coimbatore towards digital gadget usage, with a specific focus on gender and marital status differentials.

V. OBJECTIVES OF THE STUDY

1. To analyze the demographic differentials in multidimensional attitudes of young adults towards digital gadget usage.
2. To identify the significant predictors of digital gadget attitudes among young adults based on selected demographic variables.

VI. RESEARCH METHODOLOGY

A Research Design

A quantitative, non-experimental, cross-sectional research design was employed for this study.

B. Study Area

The study was conducted in Coimbatore, a major industrial and educational hub in Tamil Nadu, India.

C. Sample Size and Sampling Technique

A total of 500 young adults (aged 18 -30 years) participated in the study. Participants were selected using a convenience sampling technique.

D. Data Collection Tool

A structured questionnaire was used to collect data and a Digital Attitude Scale measuring four dimensions on a 5-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree): Perceived Benefit Attitude, Emotional Reliance Attitude, Compulsive Engagement Attitude and Job-Driven Attitude

E. Data Analysis

Data were analyzed using SPSS software. Independent samples t-tests were conducted to examine differences in attitude dimensions based on gender and marital status. The significance level was set at $p < 0.05$.

F. Ethical Considerations

Informed consent was obtained from all participants. Confidentiality and anonymity of responses were maintained, and participation was voluntary.

VII HYPOTHESIS

Null Hypothesis (H_0)

H_{01}: There is no significant difference in the multidimensional attitudes towards digital gadgets between male and female young adults.

H_{02}: There is no significant difference in the multidimensional attitudes towards digital gadgets between single and married young adults.

Table I - Independent Sample Test on Gender and Multidimensional Attitudes of Young Adults

Attitude Dimensions	Gender	N	Mean	Std. Deviation	T-Value	df	p-value	Result
Perceived Benefit Attitude	Male	126	3.8000	.67929	.737	498	.461	Not Significant
	Female	374	3.7487	.67489				
Emotional Reliance Attitude	Male	126	3.7635	.75372	.438	498	.662	Not Significant
	Female	374	3.7313	.70033				
Compulsive Engagement Attitude	Male	126	3.7000	.68422	3.410	498	.001*	Significant
	Female	374	3.4393	.76065				
Job-Driven Attitude	Male	126	3.8151	.63976	-.668	498	.504	Not Significant
	Female	374	3.8623	.70116				

Source: Computed value; *Significance at 5% level

Table I interprets that independent samples t-tests were used to compare digital gadget attitudes based on gender and marital status. Male young adults showed significantly higher compulsive engagement towards digital gadgets compared to females. No significant differences were found for perceived benefit, emotional reliance, and job-driven attitudes.

Table II - Independent T- test on Marital Status & Multidimensional Attitude of young adults

Attitude Dimensions	Marital Status	N	Mean	Std. Deviation	t value	df	p-value	Result
Perceived benefit Attitude	Single	461	3.7362	.67374	-2.909	498	.004*	Significant
	Married	39	4.0615	.63271				
Emotional Reliance Attitude	Single	461	3.7453	.71564	.639	498	.523	Not Significant
	Married	39	3.6692	.69326				
Compulsive Engagement Attitude	Single	461	3.5074	.75180	.243	498	.808	Not Significant
	Married	39	3.4769	.73823				
Job-Driven Attitude	Single	461	3.8527	.66690	.203	498	.840	Not Significant
	Married	39	3.8231	.89044				

Source: Computed value; *Significance at 5% level

Table II interpret the result of an independent samples t-test conducted to examine differences in digital attitudes based on marital status. Married young adults reported significantly higher perceived benefit attitude towards digital gadgets compared to single young adults. No significant differences were found for emotional reliance, compulsive engagement, and job-driven attitudes.

VII. DISCUSSIONS

The present study aimed to examine the influence of gender and marital status on multidimensional digital gadget attitudes among young adults in Coimbatore.

A.Gender Differences: The findings revealed that gender significantly influenced only the compulsive engagement dimension, with male respondents scoring higher than females. This suggests that young

men are more prone to compulsive behaviors such as repeatedly checking devices, prolonged usage, and difficulty disconnecting. No significant gender differences were observed for perceived benefit, emotional reliance, or job-driven attitudes, indicating that both genders equally recognize the utility of digital gadgets for work and daily tasks.

Marital Status Differences: Married respondents reported significantly higher perceived benefit from digital gadgets compared to single respondents. This may be attributed to the wider practical applications of technology in married life, including household management, financial transactions, family coordination, and balancing multiple responsibilities. Single individuals, who may use gadgets primarily for personal entertainment or social networking, tend to perceive relatively lower benefits.

Implications: The study confirms that demographic factors selectively influence digital attitudes. Compulsive engagement emerges as a gender-sensitive dimension requiring targeted intervention for males, while perceived benefit is marital status-sensitive, suggesting that married individuals can be further encouraged to leverage technology for family welfare.

VIII. LIMITATIONS OF THE STUDY

- The study was limited to Coimbatore city, so findings cannot be generalized to other regions.
- Convenience sampling may have introduced selection bias.
- Only gender and marital status were analyzed; other demographic variables were excluded.
- Qualitative insights were not captured.
- Findings may not apply to rural or semi-urban areas.

IX. RECOMMENDATIONS

1. Providing counselling and screen time limits for young males is essential as they are significantly higher in compulsive engagement attitude.
2. Promoting digital tools for household and financial tasks, as married respondents perceived higher benefits from gadgets.
3. Enforce regular digital breaks to reduce compulsive checking behaviors among young employees.
4. Designing apps that automatically prompt users to take breaks, targeting compulsive checking behaviors.
5. Monitor compulsive gadget use trends through annual health surveys at district and state levels.

X. CONCLUSION

The study concludes that gender and marital status selectively influence digital gadget attitudes among young adults in Coimbatore. Males show significantly higher compulsive engagement than females, while no gender differences exist in perceived benefit, emotional reliance, or job-driven attitudes. Married respondents perceive greater digital benefits than single respondents, but marital status does not affect other attitude dimensions. The findings highlight the need for targeted interventions addressing compulsive use in males and leveraging digital benefits among married adults.

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