INSTAGRAM USER ENGAGEMENT: A STUDY ON USER TIME ALLOCATION AND PREFERRED CONTENT

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Abstract

This study explores the Instagram user engagement, focusing on user behavior, engagement patterns, and satisfaction levels. With a sample size of 102 respondents, the research analyzes demographics, interaction habits, privacy concerns, and preferences regarding Instagram features. The findings indicate that the majority of users (80.39%) belong to the 21–25 age group, with students making up 81.4% of the respondents. Statistical analysis, including correlation, regression, and chi-square tests, reveals no significant relationship between demographic factors like occupation and future Instagram usage likelihood. However, high levels of user engagement and positive sentiment toward content quality are observed. The study highlights the importance of personalized content, community- building initiatives, and continuous digital innovation. Recommendations include enhancing accessibility features, localized content, and privacy controls to improve the user experience. This research provides valuable insights for platform developers, marketers, and social media strategists seeking to optimize Instagram's user engagement and retention strategies.

Keywords: *Social Media Engagement, Content Personalization, Privacy and Security, User Satisfaction User Experience.*

Introduction

The Instagram user experience is characterized by its intuitive interface, visually appealing content, and seamless interaction features. Upon opening the app, users are greeted with a personalized feed displaying photos and videos from accounts they follow, along with suggested content based on their interests and interactions. Scrolling through the feed is effortless, with smooth transitions between posts and the ability to like, comment, or share content with a simple tap. Instagram's emphasis on visual storytelling is evident in its various features, such as Stories, IGTV, and Reels, which offer users creative ways to share moments and express themselves. Stories provide a temporary platform for sharing short- lived content, while IGTV allows for longer-form videos, and Reels offers a space for short, entertaining clips. These features enhance the user experience by providing diverse content formats to engage with. The Explore tab further enriches the user experience by curating content tailored to individual interests, making it easy to discover new accounts, trends, and topics. Users can explore a wide range of content, from fashion and food to travel and fitness, all within a single interface. Instagram's messaging features, including direct messaging and group chats, facilitate communication among users, fostering connections and interactions beyond just likes and comments. Additionally, the platform's live streaming functionality enables real-time engagement between content creators and their audiences, further enhancing the sense of community.

Need for the Study

Exploring the Instagram user experience through a comprehensive study survey is crucial for several reasons. Firstly, Instagram has become one of the most widely used social media platforms globally, with billions of users sharing photos, videos, and stories daily. Understanding how users interact with the platform, what features they find most engaging, and how they perceive their experiences can provide valuable insights for platform developers, marketers, and researchers alike. Secondly, as Instagram

continues to evolve with new features, algorithms, and updates, it's essential to stay updated on users' preferences and behaviors to ensure the platform remains relevant and user-friendly. A study survey can help capture diverse perspectives, preferences, and usage patterns among different demographic groups, allowing for a more comprehensive understanding of the platform's user base.

Scope of Study

The scope of research on the Instagram user experience encompasses a wide range of topics and methodologies aimed at understanding how individuals interact with the platform, perceive its features, and are influenced by its content. Scholars investigate various aspects such as user engagement, visual communication practices, influencer marketing dynamics, privacy concerns, social comparison behaviors, algorithmic content curation effects, community building dynamics, and cross-cultural differences in usage patterns. Methodologically, research approaches may include qualitative methods like interviews and content analysis to understand user behaviors and motivations, quantitative methods such as surveys and data analytics to examine patterns and trends, and experimental designs to test hypotheses about user experience outcomes. Additionally, interdisciplinary perspectives from fields like communication, psychology, sociology, marketing, and computer science enrich the understanding of Instagram's impact on individuals and society. Overall, the scope of research on the Instagram user experience is broad and multifaceted, reflecting the platform's significance in contemporary digital culture.

Review of Literature
Vatsala Mittal 2017

In today's digital world, wherein user personalized content such as text, video, photos and much more have become an integral part of people's daily lives; photo intensive social media applications have acquired enhanced adoption in social media users through Instagram. By the time, Instagram- a photo sharing site continues to evolve and grow in popularity. Although Instagram has rapidly gained popularity among active social media users, analysis of the interaction and engagement among people on Instagram is missing and is almost an untouched area.

Aaker D.A. & Stayman D.M 2022

The purpose of this study is to understand the role of social media content on users' engagement behavior. More specifically, we investigate: (i)the direct effects of format and platform on users' passive and active engagement behavior, and (ii) we assess the moderating effect of content context on the link between each content type (rational, emotional, and transactional content) and users' engagement. The dataset contained 1,038 social media posts and 1,336,741 and 95,996 fan likes and comments, respectively based on Facebook and Instagram. The results reveal that the effectiveness of social media content on users' engagement is moderated by content context. The findings contribute to understanding engagement and users' experience with social media. This study is a pioneering one to empirically assess the construct of social media engagement behavior through the effects of content types and content contexts on a dual social media platform.

Manikonda, L., & Kambhampati, S. (2014)

Instagram is a relatively new form of communication where users can easily share their updates by taking photos and tweaking them using filters. It has seen rapid growth in the number of users as well as

uploads since it was launched in October 2010. In spite of the fact that it is the most popular photo capturing and sharing application, it has attracted relatively less attention from the research community. In this paper, we present both qualitative and quantitative analysis on Instagram. We use computer vision techniques to examine the photo content. Based on that, we identify the different types of active users on Instagram using clustering.

Yohannes Kurniawan 2020

Social media is used as an online communication today. In addition, institutions, schools, and companies make social media as a part of media marketing to introduce their brands. Instagram will be discussed in this study because the majority I-Generation in Indonesia used Instagram. Universities use Instagram for marketing media by posting photos and videos with captions. Besides posting, the engagement between users and university social media accounts is very important for marketing purpose. In this research, we will learn about how much user engagement to university social media in Indonesia. The purpose of this research is to identify user's opinion about university Instagram official accounts and to analyze the engagement of five top universities official Instagram account in Indonesia with Analisa.io tool and questionnaire survey for one university as a case study. The result of this study can be used as advice or input about social media engagement for university official Instagram account.

Research Objectives
Primary Objectives
Understanding User Behavior

Researchers aim to delve into the intricacies of how users navigate the platform. This includes studying the frequency and duration of user sessions, the types of content users engage with the most (e.g., photos, videos, stories), and the features they utilize (e.g., likes, comments, direct messages).

Research Methodology
Type of Research Quantitative Research

The proposed quantitative research aims to investigate the factors driving preferences among customers. Content analysis methods systematically code and analyze Instagram posts to identify themes and patterns, while experimental studies manipulate variables to observe their effects on user behavior.

Sources of Data Tool: Google Form

Beginning with an introduction outlining the purpose and confidentiality of the survey sets a tone of trust and transparency. Demographic inquiries, such as age, gender, location, and occupation, provide crucial context for understanding diverse user perspectives. Moving forward, delve into users Instagram habits, including frequency of use, preferred devices for access, and duration of usage. Feature engagement is pivotal, prompting participants to articulate which functionalities they utilize most frequently, alongside any underutilized features and suggestions for enhancements. Content consumption habits offer insights into user preferences and discovery methods, encompassing diverse media formats and content sources like influencers and brands.

Likely hood of recommendation. A sample of 95 respondents, selected using probability sampling, ensures diverse representation. To enhance reliability, the questionnaire undergoes pretesting and pilot testing before full deployment. Descriptive statistics (mean, median, and standard deviation) summarize trends, while inferential statistics (Chi-Square, t-tests, ANOVA) identify relationships between variables. Data visualization tools such as graphs and charts provide clear insights. This structured approach ensures an in-depth understanding of how Korean fashion trends influence Indian consumers.

Tools and Techniques Used for Analysis

For the Instagram user experience questionnaire, a variety of tools and techniques will be employed for data analysis, encompassing both descriptive and inferential statistical methods. The following tools and techniques will be utilized

Descriptive Statistics

The data collected from the survey questionnaire will undergo descriptive statistics to provide a concise summary. This will include frequency distributions, measures of central tendency (mean, median, mode), and measures of variability (standard deviation, range). Descriptive statistics will reveal prevalent patterns or trends among respondents regarding their Instagram usage experiences.

Inferential Statistics

Inferential statistical techniques, such as correlation analysis, chi-square tests, and regression analysis, will be applied to test hypotheses and ascertain the significance of relationships between variables. For instance, inferential statistics may be used to determine if there is a significant association between user engagement levels and satisfaction with Instagram features.

Data Visualization Tools

Data visualization tools, including charts, graphs, and heatmaps, will be utilized to visually represent the results of the analysis. These visualizations will aid in the interpretation of complex data sets, allowing for the identification of patterns or trends in users' perceptions and experiences with Instagram.

Result and Findings

Demographic Frequency Distribution

Demographic Category	Frequency	Percent (%)
Age		
15-20 Years	16	15.7%
21-25 Years	82	80.4%
25-30 Years	3	2.9%
30 Years and above	1	1.0%
Gender		
Male	66	64.7%
Female	35	34.3%
Prefer not to say	1	1.0%
Occupation		
Student	83	81.4%

Employed	13	12.7%
Self-employed	2	2.0%
Unemployed	4	3.9%
Total	102	100%

Interpretation

The demographic analysis reveals that the majority of Instagram users surveyed are young adults, with 80.4% belonging to the 21–25 years age group and 15.7% aged 15–20 years, indicating the platform's strong appeal among younger users. Older age groups are underrepresented, highlighting reduced engagement among older demographics. The gender distribution shows a male majority (64.7%), compared to 34.3% female respondents, with 1% preferring not to disclose their gender. In terms of occupation, +s.3+0Utudents do471m/OLMHC4inate the sample (81.4%), suggesting Instagram's popularity as a primary social networking platform among the student community. A smaller percentage of respondents are employed (12.7%), self-employed (2%), or unemployed (3.9%), reflecting diverse yet predominantly student-driven user engagement. Overall, the data indicates that young, male, student users form the core demographic of Instagram's user base, underscoring its role as a leading platform for social interaction among younger generations.

User Preferences for Social Media Platforms and Their Role in Fostering Community Connections

Objective Statement	Response Option	Count	Frequency (%)
Top Social Media App Across Demographics	Instagram	51	50.50%
	YouTube	21	20.80%
	WhatsApp	10	9.90%
	Facebook	2	2.00%
	X	2	2.00%
	Telegram	2	2.00%
	Snapchat	4	4.00%
	Pinterest	8	7.90%
	Discord	1	1.00%
Role of Social Media in Fostering Community Connections	Yes	65	64.40%
	No	36	35.60%
Total		101	100.00%

Interpretation

The survey shows that Instagram is the most preferred social media platform, selected by 50.5% of respondents, followed by YouTube (20.8%) and WhatsApp (9.9%). Other platforms like Pinterest (7.9%) and Snapchat (4%) were less popular, while Facebook, X, Telegram, and Discord received minimal preference. Additionally, 64.4% of respondents believe social media plays a vital role in fostering community connections, indicating its importance in creating and maintaining social relationships.

Frequency of Social Media Usage and Impact on Stress Levels

Objective Statement	Response Option	Count	Frequency (%)
Frequency of Social Media Platform Usage	Less than once a month	90	89.10%
	A few times a month	9	8.90%
	Once a week	2	2.00%
Impact of Social Media Usage on Stress Levels	Yes	50	49.50%
	No	50	49.50%
	Maybe	1	1.00%
Total		101	100.00%

Interpretation

The majority of respondents (89.1%) use social media platforms less than once a month, with only 2% engaging weekly. The emotional impact assessment reveals a divided opinion, with 49.5% of respondents feeling that social media causes stress, while an equal percentage report no such impact. This indicates that while social media engagement is infrequent among the majority, its influence on stress levels remains a mixed experience.

Chi-Square Test

Test	Value	df	Asymptotic Significance (2-sided)
Pearson Chi- Square	3.937	4	0.415
Likelihood Ratio	4.750	4	0.314
Linear-by-Linear Assoc.	0.477	1	0.490
N of Valid Cases	101		

Interpretation

Since all p-values are **greater than 0.05**, we **fail to reject the null hypothesis**, concluding that there is **no significant relationship between age group and social media usage**. However, with **60% of cells having expected counts less than 5**, the test's reliability may be affected, and further analysis may be required.

ANOVA Test

Sum of Squares	df	Mean Square	F	Sig.
Between Groups	0.050	1	0.050	0.059
Within Groups	84.960	99	0.858	
Total	85.010	100		

Interpretation

The **p-value (0.809)** is **greater than 0.05**, leading to **failing to reject the null hypothesis**. This suggests that **user satisfaction levels with social media features do not significantly differ among various usage frequency groups**, indicating consistent user satisfaction regardless of how frequently they use social media.

Correlation

Variables	Pearson Correlation	Sig. (2-tailed)	N
Frequency of Social Media Usage	1	-	101
Hours Spent per Day on Social Media	0.276	0.005	101

Interpretation

The **Pearson Correlation coefficient (0.276)** shows a **positive relationship** between the frequency of social media usage and the number of hours spent per day. With a **p-value of 0.005 (<0.05)**, we **reject the**

null hypothesis, concluding a **significant correlation** exists indicating that **more frequent users tend to spend more time daily on social media platforms**.

Regression

Model	Unstandardized Coefficients (B)	Std. Error	Beta	t	Sig.
Constant	3.833	0.295	-	12.993	0.000
Gender	0.057	0.236	0.024	0.242	0.809

Model Summary

- **R Square:** 0.001
- **Adjusted R Square:** -0.010
- **Standard Error of the Estimate:** 0.926

Interpretation

The regression analysis indicates that gender is not a significant predictor of user satisfaction regarding the ease of using social media functionalities (p-value = 0.809 > 0.05). Additionally, the low R Square (0.001) suggests that the model explains very little variance in satisfaction levels. Consequently, we fail to reject the null hypothesis, concluding no significant relationship exists between gender and user satisfaction with social media features.

Research Gap

The study has certain limitations, including a limited exploration of cultural influences on user behavior, content consumption, and engagement, which could be enhanced through cross-cultural comparisons. Additionally, it lacks a longitudinal analysis, capturing only a snapshot of user behavior without examining evolving trends over time. The focus remains on general user engagement rather than niche communities, missing insights into specific groups like fashion enthusiasts or gamers. Furthermore, the study does not extensively analyze Instagram's psychological and emotional impact on users, such as its effects on mental health and self-esteem. Lastly, it overlooks the role of Instagram's algorithms in shaping content visibility, engagement, and user retention.

Findings and Suggestions Findings

Demographic Insights: The majority of Instagram users surveyed are young adults (80.4% aged 21–25), predominantly students (81.4%), with a male majority (64.7%). This highlights Instagram's strong appeal among younger demographics.

Platform Preference: Instagram is the most preferred social media platform (50.5%), followed by YouTube (20.8%), showcasing its dominance in visual content consumption.

Community Engagement: 64.4% of respondents believe social media fosters community connections, emphasizing its role in online socialization.

Usage Patterns: Most respondents (89.1%) use social media less than once a month, indicating lower frequency engagement. However, a significant correlation exists between frequent usage and hours spent daily.

Psychological Impact: Social media's effect on stress levels is divided, with 49.5% feeling an impact, while an equal percentage reported no influence.

Statistical Insights

Chi-Square Test: No significant relationship between age group and social media usage.

ANOVA Test: No significant differences in user satisfaction across different usage frequency groups.

Correlation Analysis: A positive correlation between social media usage frequency and time spent online.

Regression Analysis: Gender is not a significant predictor of user satisfaction with Instagram's usability.

Research Gaps: The study lacks a deep dive into cultural influences, longitudinal trends, niche communities, psychological effects, and algorithmic influence on user behavior.

Suggestions

Enhancing Cultural Analysis: Conduct a cross-cultural study to understand how cultural differences shape engagement patterns.

Longitudinal Research: Future studies should analyze evolving trends over time to capture shifting user behaviors.

Niche Community Focus: Exploring specific interest-based communities (e.g., fashion, gaming, and business networks) can provide deeper insights into specialized user behaviors.

Psychological and Emotional Impact: A deeper examination of Instagram's effects on mental health, self-esteem, and emotional well-being is necessary.

Algorithm Transparency: Research on how Instagram's algorithm influences content visibility, engagement, and user retention can help users and marketers optimize content strategies.

Feature Enhancements: Instagram should consider improving accessibility, localized content, and privacy settings to cater to diverse user needs.

Conclusion

In conclusion, the exploration of the Instagram user experience provides valuable insights into the platform's dynamics, user behaviours, and preferences. Through a comprehensive analysis of demographics, user interactions, and behavioural trends, several key findings emerge. Firstly, the platform exhibits a diverse demographic composition, with a significant majority of users belonging to the

21-25 age group. Additionally, while gender may have a slight influence on post engagement, occupation alone does not significantly predict future Instagram usage likelihood. These insights underscore the importance of personalized content, community engagement, and platform innovations in driving user satisfaction and retention.

Moving forward, it is recommended that Instagram focuses on enhancing content customization to deliver personalized experiences tailored to users' interests and preferences. Community-building initiatives should also be prioritized to foster a sense of belonging and connection among users. Moreover, continued investment in digital innovation, such as the integration of emerging technologies and accessibility features, can further enhance the platform's appeal and user engagement. By implementing these recommendations, Instagram can continue to evolve as a leading social media platform, providing a dynamic and inclusive user experience for its diverse user base.

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