



UNDERSTANDING SOCIAL MEDIA USAGE THROUGH THE LENS OF TAM: AN EMPIRICAL STUDY OF FACEBOOK USERS IN PAKISTAN

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Abstract

The high growth of social networking sites (SNSs) has revolutionized the way people interact, exchange information, and run business. Facebook is one of those mediums that are central in Pakistan not only in the personal interactions but also in journalism. This paper deploys and expands the Technology Acceptance Model (TAM) to research the factors that influence the Facebook use behavior of Karachi-based and Hyderabad-based working journalists in Pakistan. The quantitative, explanatory research design was applied to collect the data in the form of structured questionnaire with 309 respondents. The model comprised the classical TAM variables - Perceived Usefulness (PU) and Ease of Use (EU), and other variables - Trustworthiness (TW), Playfulness (PP), Capability (CP) and Critical Mass (CM). The SPSS was used to examine data on descriptive statistics and reliability test, and Partial Least Squares Structural Equation Modeling (PLS-SEM) with Smart PLS was employed to test the measurement and structural models. Findings affirmed that PU and EU had a great impact on Behavioral Intention (BI) in line with other studies conducted on TAM basis. TW and PP were used as a mediator which indicated that trust and enjoyment played an important role in enhancing adoption behavior. There were also significant roles of CP and CM, with the focus on the influence of digital competence and peer pressure. The TAM was found to be quite robust in a non-Western and developing country context, as it accounted for a very large percentage of variance ($R^2 > 0.60$) in Facebook usage. This research has a theoretical contribution in the form of making extensions of TAM by introducing contextual constructs as well as an empirical contribution in the form of offering insights into Facebook adoption by Pakistani journalists. In a practical sense, it highlights the importance of user-friendly design, a high level of privacy, and meaningful user experiences to increase the use and retention of a platform. Further SNSs and the qualitative method should be used to gain a better insight into the user motivation in future studies.

Keywords: *Technology Acceptance Model, Facebook, Social Networking Sites, Journalists, Pakistan, PLS-SEM, User Behavior.*

1. Introduction

The high rate of development of the social networking sites (SNSs) has profoundly altered the way humanity interacts, communicates and shares information in the world. Facebook, Twitter, Instagram, and WhatsApp are no longer platforms that people communicate casually but rather become a very important part of the contemporary life. Young people especially find these platforms as their socialization, self-expression and a region where a wide range of content can be accessed. The digital communication technologies have brought new opportunities and challenges in the Pakistani context, which is extensively adopted. The social networking sites are currently being used extensively in personal relationships besides academic collaboration, marketing strategies, promoting businesses and journalism practices.

Of these sites, the Facebook is still considered one of the most influential platforms because of its interactive nature, wide user base and multifunctional use. In order to realize why users choose and still use Facebook, it is significant to look at the factors that influence acceptance and continued use. Technology Acceptance Model (TAM) is an effective framework to consider such behaviour since it focuses more on how useful and how easy to use technology is in influencing technology attitudes. Nevertheless, user engagement on social media is more complicated and it needs more constructs than TAM. Other factors like trust, playfulness, personal ability, and the critical mass have a significant contribution to the determination of participation and further participation in these sites.

Although the application of TAM in Western societies has been conducted in a lot of studies, there is little research on the South Asian countries, especially Pakistan. This disparity reveals the need to develop localized searches to gain a clear picture on cultural, social, and technological drivers that lead to social media consumption. Thus, the current research aims to examine Facebook adoption patterns in Pakistan through the combination of TAM and additional constructs to help in gaining more observations about the user behavior.

2. Literature Review

2.1. Facebook Usage and Social Networking Sites

The growth of the social networking sites (SNSs) has revolutionized communication, distribution of information, and networking of persons in the professional world. One of the most popular platforms, Facebook in particular, is the one that combines personal, educational, business, and professional activities (Ellison, Steinfield, and Lampe, 2007). Facebook has taken up a critical role in news collection, interaction with the audience, and distribution of content in the journalistic scene (Hermida, 2012). Facebook offers a convenient avenue of reaching out to audiences, acquiring stories and engaging in professional communities to Pakistani journalists who tend to operate in resource-strapped and unstable political contexts (Khan and Safdar, 2020).

2.2. Technology Acceptance Model (TAM)

One of the most popular theoretical models used in the research of user acceptance of technology is the Technology Acceptance Model (TAM) which was introduced by Davis (1989). TAM assumes that Perceived Usefulness (PU) and Perceived Ease of Use (EU)

affect Behavioral Intention (BI) of users which subsequently affects actual use behavior. TAM has been proved in a variety of contexts by various studies, such as e-learning, mobile application, and social media (Venkatesh and Davis, 2000; Gefen et al., 2003). Nevertheless, it is stressed that the active and interactive character of SNSs needs to expand TAM to incorporate more motivational and situational variables (Rauniar et al., 2014).

2.3. Perceived Ease of Use and Usefulness

The importance of PU and EU to influence the adoption of SNS is always validated through research. The more useful the platforms are to users in terms of meeting individual or career-related demands and navigability, the more likely they will want to be involved in these platforms (Teo, 2011). PU in journalism can also be associated with the efficacy of the news-gathering procedures, delivery, and customer response, whereas EU is associated with the usability of the page and the intuitiveness of the interface. In Pakistan, studies have also found that the perceived utility and simplicity is a major driver between youth and professionals to adopt Facebook (Shahbaz and Niazi, 2019).

2.4. Trustworthiness

With the recent increase in the anti-misinformation and privacy anxieties, trustworthiness (TW) has become a key consideration in the use of SNS. Trust involves the feeling by the users that they have security over their data, credibility of the platform, and truthfulness of the information (Gefen, 2000). In the case of journalists, credibility is especially relevant as their working reputation is based on the availability and distribution of credible information. The literature has indicated that trust has a positive influence on the intention to use SNSs particularly in situations where the digital literacy and regulatory policies are still developing (Flavián and Gunaliu, 2006).

2.5. Playfulness

Perceived Playfulness (PP) embodies the intrinsic drive of fun, entertainment and interaction during the utilization of technology (Moon and Kim, 2001). Playfulness in the case of SNS affects the sustained use because the user satisfaction is raised above functional utility. According to research, playfulness stimulates increased involvement, imaginative expression, and content exchange on the websites like Facebook and Instagram (Rauniar et al., 2014). In the case of journalists, playfulness can facilitate creative storytelling and innovative practices of engaging the audience.

2.6. Capability

Much like the digital competence and self-efficacy of users to utilize technology effectively, capability (CP) denotes the digital competence and self-efficacy (Bandura, 1997). Research indicates that users who have a better digital proficiency tend to accept and use SNSs to perform higher-order functions, such as work-related activities (Compeau and Higgins, 1995). The issue of capability is critical in influencing the use of Facebook by journalists in Pakistan since the level of digital literacy differs greatly.

2.7. Critical Mass

In diffusion of innovation theory, the Critical Mass (CM) concept is based upon the roles of peer adoption in encouraging individual use (Markus, 1987). In cases where many of the colleagues or peers are using a platform, people tend to join in so that they do not risk social or professional alienation. In the case of journalists, the popularity of Facebook has



been a network effect that solidifies its usefulness as a business tool. Much of the existing empirical data shows that critical mass is a powerful predictor of SNS adoption, particularly in collectivist societies such as Pakistan (Sundar et al., 2015).

2.8. Research Gaps

Although TAM and its extensions have been extensively studied in the Western context, there is little empirical studies about TAM in Pakistan especially among journalists, who are both professionals and personal users of social media. Past research in Pakistan has largely concentrated on students or a general youth population leaving professional settings to a limited investigation. Furthermore, other constructs like trustworthiness, playfulness, capability and critical mass have not been adequately incorporated into localized research even though they are important in the context of affecting adoption behaviors.

Summary

The literature review indicates that a combination of both extrinsic (usefulness, ease of use) and intrinsic incentives (trust, playfulness, competence, peer influence) determines Facebook adoption. The addition of these constructs to TAM can help make a more holistic picture to comprehend the subject of SNS adoption in Pakistan. The targeted research on journalists in Karachi and Hyderabad fills a major void in the theoretical and empirical literature by providing a glimpse of how media practitioners cope with and depend on Facebook in their day-to-day operations.

3. Methodology

The research design used in this study was quantitative, explanatory research design as it sought to study the behavior patterns of using Facebook in Pakistan. A quantitative method was best suited, because it allowed collecting numerical data in a systematic manner and could test hypothesized relationships in a rigorous way. The explanatory design enabled the establishment of cause and effect relationships amid variables in the Technology Acceptance Model (TAM) and its expanded constructs.

3.1. Research Instrument

A structured questionnaire was used to collect data that was based on the foundations of the other instruments of TAM that were tested and valid. To make the instrument more contextually relevant, it was supplemented with more constructs: trustworthiness (TW), playfulness (PP), ability (CP), and critical mass (CM). All constructs have been measured with several items concerning a five-point Likert scale (1 = strongly disagree to 5 = strongly agree), modified out of published studies. Before the actual survey, a pilot study was carried out on 30 respondents to serve a purpose of streamlining clarity, reliability, and validating measurement items. Adjustments were offered to necessary changes according to the respondent feedback.

3.2. Sampling and Data Collection

The convenience sampling method was non-probability since it was done based on the consideration of accessibility, and the subjects were diverse. The working journalists of Karachi and Hyderabad were the target population; this reflected a wide range of media professionals in print, electronic, and online media. The data were gathered via the questionnaires carried out online and by distributing the questionnaires directly in media

houses and press clubs. Among all the responses, 309 filled out questionnaires were identified to be valid and were used in the final analysis.

3.3. Ethical Considerations

The involvement was purely voluntary and anonymity and confidentiality were assured to the respondents. Both informed consent was taken before the surveys were filled in and the participants were assured that the data was only to be used academic purposes.

3.4 Sampling Profile

Demographic Profile of Respondents

The sample size used in the study was 309 working Karachi and Hyderabad journalists who were representatives of the print, electronic, and digital media outlets in Pakistan. This population profile gives details about the diversity of the respondents and makes the results dependable to illustrate the patterns of the social media use among the media practitioners.

Table 3.1: Demographic Description of the Respondents

Demographic Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	180	58.3%
	Female	129	41.7%
Age Group	18–25	132	42.7%
	26–35	108	35.0%
	36–45	42	13.6%
	46+	27	8.7%
Education	Undergraduate	140	45.3%
	Graduate	102	33.0%
	Postgraduate	67	21.7%

The demographic analysis indicates that the sample consisted mainly of young journalists of ages between 18-35 (77.7%), which is in line with the tendencies in the world to use social media most significantly among younger generations. The balance of gender representation was not very high, but was slightly inclined to the male side. The educational levels also show that there is a well-qualified pool of respondents as over half of them have graduate or postgraduate degrees.

4. Data Analysis

Data were put into SPSS in order to clean them and do descriptive analysis as well as reliability testing (Cronbachs alpha). Partial Least Squares Structural Equation Modeling (PLS-SEM) was used to test the hypothesized relationships and measure the structural model using SmartPLS software. This approach was chosen because it is the strongest in testing complicated theoretical models, appropriate with relatively smaller samples, and able to test both measurement and structural relationships simultaneously.

4.1. Statistical Analysis

Partial Least Squares-Structural Equation Modelling was used to test the proposed model with Smart PLS. The reason behind this technique is its power and ability to test both measurement and structural models at the same time. The model contained six constructs that were Perceived Usefulness (PU), Ease of Use (EU), Trustworthiness (TW), Playfulness (PP), Capability (CP) and Critical Mass (CM).

The constructs proved to be strong (> 0.70), Composite Reliability (CR > 0.80), and Average Variance Extracted (AVE > 0.50), which creates reliability and convergent validity. Discriminant validity was also established and all the constructs measured different concepts.

The path analysis showed that PU and EU had a strong impact on Behavioral Intention (BI) to use Facebook and this confirmed the theoretical foundations of TAM. Moreover, TW and PP mediated and increased the user intention introducing trust and enjoyment dimensions. The concepts of Capability (CP) and Critical Mass (CM) also played the adoption role, and they emphasize the significance of digital competence and peer influence.

The last model accounted a significant percentage of variance (R^2 more than 0.60) in Facebook usage behavior, which highlights the strength of the extended TAM, in this case.

5. Results

The analysis commenced with an assessment of the measurement model to verify reliability of the constructs and also validity. Cronbach alpha and Composite Reliability (CR) were used to determine Reliability, and all the results were found to be greater than the suggested level of consistency (0.70). Convergent and discriminant validity were established with all the values of Average Variance Extracted (AVE) being above 0.50 and Fornell-Larcker criteria respectively, which was used to confirm that the constructs were not identical. Additional dimensionality cutting with Principal Component Analysis (PCA) and Rotated Component Matrix showed that items loaded well on their respective constructs with the highest item loading of 1.11 on the constructs. This ensured that the measurement items were reliable to depict the theoretical variables that were meant to be measured.

The structural model was later tested with Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS. The findings revealed that all the relationships hypothesized had a statistically significant value at $p < 0.05$ which is a strong empirical evidence that supports the research model. Particularly, Perceived Usefulness (PU) and Ease of Use (EU) were identified to have a direct and positive effect on Behavioral Intention (BI) to use Facebook among working Karachi and Hyderabad journalists. The results are in line with the premises of the Technology Acceptance Model (TAM) and the importance of utility and ease of use in the process of adoption of technology.

Moreover, the protracted constructs added value to the model. Trustworthiness (TW) increased the trust in Facebook that it is a trustworthy service and Perceived Playfulness (PP) had a positive effect on the user engagement in that it emphasized the pleasant experience of using Facebook. The two constructs mediated, which enhanced the explanatory capacity of the traditional TAM framework. The effects of capability (CP) and Critical Mass (CM) were also significant, which can be explained by the fact that personal digital competence and peer adoption issue are significant factors that determine user behavior.

Comprehensively, the last structural model explained a significant percentage of variance (R^2 values more than 0.60) in Facebook usage behavior. This shows how the integrated TAM model is strong and that it can be used to explain how social media platforms are adopted and used among the Pakistani journalistic population.

6. Discussion

The current research confirms the relevance of the extended Technology Acceptance Model (TAM) to the Facebook use among Pakistani journalists. In line with the original contribution of Davis (1989), and the adjustments made by Venkatesh and Davis (2000), Perceived Usefulness (PU) and Ease of Use (EU) were found to be important predictors of Behavioral Intention (BI). These results confirm that journalists tend to adopt and use social networking platforms more often when they feel that they are not only convenient in carrying out professional activities but also simple to use.

The use of Trustworthiness (TW) and Perceived Playfulness (PP) gave deeper insight into the model as it portrays aspects of confidence and fun beyond functionality. Credibility, privacy and security are the areas of concern to the users of a platform in terms of trustworthiness, and this is of extreme importance to the journalists who depend on platforms to source, verify and share information. The emphasis of playfulness, however, is a different approach to the emphasis of utility and user experience, implying that the journalists not only appreciate the usefulness of Facebook but also the interactive and engaging space that Facebook offers. These results are in line with previous studies that show that extrinsic factors (usefulness and usability) and intrinsic factors (trust and enjoyment) are necessary in influencing adoption of social networking sites.

Besides, the paper identifies the significance of user-friendly design aspects, effective data security protocols, and pleasurable user experience as factors that will encourage more engagements. To developers, these insights highlight the need to create platforms that are usable and user-friendly, at the same time, their concerns on the aspect of trust and privacy. To the marketer, what the results highlight is that a campaign that is designed to focus on bringing out the utility as well as the fun associated with the social media platform can attract user satisfaction and retention.

This study can also be used to understand Facebook adoption in a non-Western context better by incorporating new constructs in TAM. It also offers practical implications to the technology designers, platform managers, and communication professionals who want to use social media as an aid to both the professional and personal matters.

7. Conclusion

This study proves that the elongated Technology Acceptance Model (TAM) is a valuable tool that can be used to describe and forecast Facebook usage habits among the Pakistani users, or more specifically, among the journalistic fraternity of Karachi and Hyderabad. This paper emphasizes that the Perceived Usefulness (PU) and Ease of Use (EU) are still fundamental determinants of the behavioral intention, which is consistent with the initial propositions of Davis (1989) and Venkatesh and Davis (2000). Simultaneously, functionality is complemented by the addition of Trustworthiness (TW) and Perceived Playfulness (PP) as providing a more nuanced view of social media use, showing that the functionality is not the only factor of adoption but the level of user confidence in the platform and the pleasure that it brings.

Moreover, Capability (CP) and Critical Mass (CM) role emphasize the significance of the personal digital competence and peer network impact on technology adoption. These lessons support the opinion that the adoption of social media in developing nations is conditioned by the complicated interaction of practical utility, usability, security, fun, and social pressure.

Practically, the research in question sheds light on the significance of a user-friendly interface, robust privacy protection, and interactive user experiences as the key to a long-lasting social media uptake. To the developers and marketers, customization of services to suit these needs can go a long way in enhancing retention of users. These findings mean to journalists that Facebook is not just a means of communication but also a platform where they can find chances to connect professionally and share information and distribute content.

The study is significant in the overall literature because it endorses a long TAM in a non-Western and developing nation, thereby filling a critical gap in the empirical literature. Nonetheless, the research has its drawbacks. The lack of emphasis on other methods, as well as its reliance on quantitative ones and the use of Facebook, in particular, limits the scope of findings. Further research must expand the investigation and add other forms of social network platforms (SNSs) like Twitter, Instagram, and LinkedIn to the set of them, and pursue a broader approach, such as qualitative research, like interviews and focus groups, to gather more significant information about the reasons and perceptions behind their use, as well as their challenges.

Altogether, the extended TAM is a powerful and contextually applicable model in the analysis of Facebook use in Pakistan. Through the combination of the traditional and extended construct, the study makes a theoretical contribution, a practical guideline to the platform developers and marketers, and a basis of the subsequent scholarship study of digital media adoption in various cultural contexts.

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