

SOCIAL MEDIA & NEWS CREDIBILITY: A QUANTITATIVE STUDY OF X (TWITTER) USERS IN PAKISTAN

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Abstract

The rapid digitalization has changed the society and people access and engage with news has also transformed. In Pakistan, social media platforms in general and X (formerly Twitter) in particular, have also become main source of real-time information gathering and public discussion. This study has examined how Pakistani users of X (formerly Twitter) evaluate the credibility of news content, exploring the relationship between patterns of X usage, digital literacy and trust in information sources, and how these factors influence users' ability to distinguish authentic news from misinformation. A quantitative research design was adopted based on a structured survey of active X users in the country. The study identifies the extent of dependence on X for news, judgement of news authenticity, and the impact of misinformation on public trust in media. The findings contributes to the development of media literacy initiatives, improved verification practices, and strategies for mitigating the harmful effects of misinformation in Pakistan's digital environment.

INTRODUCTION

The emergence of social media has changed the news gathering and sharing phenomenon. Once news was produced and shared through newspapers, TV channels, and radio stations in a professional manner. With the development of technology and speedy digitalization, the social media platforms like X gained the popularity and now have become potential news sources. In Pakistan, this shift is very much visible specially in the patterns of developing and breaking news. The political happenings and social issues are discussed and shared online. The X with its real time short messaging and interactive landscapes, has become

an important forum for media persons, political figures, social activists and citizens to link and involve with issues of public interest, social issues and government policies.

This transmission is along with difficulties because X operation is not under the very editorial standards as of the traditional media. The spread of fake news, misinformation, disinformation and agenda set narratives can circulate easily as verified news. Users are often confronted with a mixture of factual information, opinion, and misinformation, all presented in similar formats. As a result, the responsibility for evaluating

credibility has shifted more heavily onto the individual user. The present study is situated in this complex environment and seeks to understand how Pakistani X users navigate the challenge of distinguishing authentic news from misleading or false content.

Over the last decade, Pakistan has seen a big change in internet penetration and smartphones adoption. This technological development has resulted into expansion of social media and its usage in the society. The X (Twitter) has arose as a prominent platform for new updates particularly among politicians, media organizations, and politically engaged citizens. The usage of this platform by State institutions and officials has increased to issue press releases, official response to events and shape narratives. The X (Twitter) is also used by citizens to give their opinions, share information, and participate in debates in the form of space.

This larger openness in communication has also created space for misinformation and propaganda. During major political events, crises, or national tragedies, unverified claims often spread rapidly before professional news organizations are able to confirm or deny them. Users are sometimes exposed to fabricated statements, misattributed quotes, edited images, and misleading headlines. This environment poses a challenge not only for journalists who attempt to maintain professional standards but also for ordinary users who must decide which information to believe and possibly share further. In the Pakistani context, where social tensions and political polarization already exist, the spread of misinformation through X has the potential to deepen confusion and mistrust.

Statement of the Problem

With the growing dependence on X (Twitter) as a news source, Pakistani users are increasingly exposed to information that has not been rigorously verified. Many users tend to rely on superficial cues, such as the number of likes, retweets, or comments, the emotional appeal of the content, or the popularity of the person posting it, rather than systematically examining the accuracy or source of the information. As a result, misleading or false news can easily be perceived as credible and may be shared widely.

This pattern of behavior contributes to the spread of misinformation, undermines public trust in media, and can influence opinions and decisions in ways that are not based on reliable facts.

The central problem addressed by this study is the gap between the widespread use of X for news and the limited capacity of many users to critically evaluate the authenticity of the information they consume. Despite the importance of this issue, there is relatively little empirical research focusing on how Pakistani users of X judge news credibility and what factors help them to identify or fail to identify misinformation.

Research Objectives

- Analyze reliance on X for news consumption in Pakistan.
- Identify behavioral and psychological factors influencing trust.
- Examine the role of digital literacy in evaluating content.
- Measure the effect of misinformation on media trust.
- Investigate practice of verification behaviors among users.
- Recommend strategies to promote credible news consumption.

Research Questions

1. How dependent are Pakistani users on X for news?
2. What influences trust in news encountered on X?
3. How digital literacy support credibility evaluation?
4. What impact does fake news have on public trust in journalism?
5. How can misinformation be countered through user awareness?

LITERATURE REVIEW

The rapid growth of social media has incited wide-ranging academic examination of how individuals interact with news in digital spaces and how they evaluate information credibility. This chapter reviews relevant literature to build a conceptual foundation for the present study. It considers how social media platforms like X have become central

to news consumption, the challenges associated with news credibility in such environments, the dynamics of misinformation spread, and the roles of digital literacy, critical thinking, and trust in sources. It also outlines the theoretical framework that underpins this research and develops the conceptual model and hypotheses.

Studies show that users rely heavily on source-related cues when evaluating news on Twitter, with perceived source credibility strongly influencing judgments of authenticity and veracity (Millet, 2024). Frequent social media use has also been associated with increased trust in certain news sources, suggesting that repeated exposure can normalize credibility perceptions and shape trust formation (Cha, 2025). Digital audiences further assess news authenticity through heuristic and contextual cues rather than systematic verification, especially in fast-paced social media environments (Rojas Torrijos, 2025).

Research on misinformation highlights that social media ecosystems facilitate the spread of unverified and misleading content due to low entry barriers and algorithmic amplification. A systematic review by Aïmeur et al. (2023) concludes that authenticity judgments on social media are often disconnected from objective accuracy, emphasizing the importance of trust and user competence. Empirical evidence indicates that fact-checking and media literacy interventions significantly enhance users' ability to distinguish authentic news from misinformation (Berger, 2025), while repeated exposure to misinformation can distort trust perceptions and increase vulnerability to false content (Denniss, 2025).

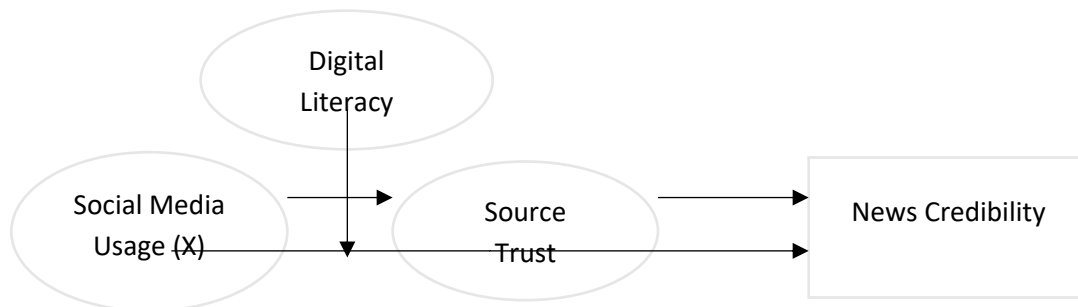
Digital learning and media literacy have been widely identified as critical factors influencing how users evaluate online information. Studies demonstrate that individuals with higher news literacy are more likely to verify information and less likely to rely on superficial credibility cues

when forming trust judgments (Kožuh, 2023). Similarly, media literacy has been shown to reduce belief in and dissemination of fake news among social media users, supporting its role as a moderating factor in trust formation processes (Talabi et al., 2024). Digital literacy further strengthens users' resistance to misinformation by enhancing critical evaluation skills (Mrah, 2024).

Operational Definitions

- i. **Social Media Usage:** Refers to how often and for what purposes users engage with platforms like X. It encompasses the types of interactions, such as reading, liking, sharing, and commenting on news posts.
- ii. **News Credibility:** The degree to which news content is factual, verified, and credible. Authentic news is based on reliable sources, while inauthentic news includes false or misleading information designed to deceive or provoke emotions.
- iii. **Fake News:** Information that is deliberately fabricated, misleading, or distorted to misinform or mislead the public. This term also encompasses conspiracy theories, hoaxes, and misinformation that spread across platforms like X.
- iv. **Digital Literacy:** The ability to critically evaluate online information, recognize credible sources, and verify news content. In the context of social media, digital literacy is essential for distinguishing real news from fake news.
- v. **Verification behavior** refers to any deliberate effort made by users to confirm the accuracy of information, such as checking the source, comparing with other news outlets, or using fact-checking resources.
- vi. **"X users,"** in this research, refers specifically to adult users in Pakistan who use X to access or engage with news content.

Framework of the Study



Hypothesis of the Study

The hypotheses for this study were aligned with the focus on X/Twitter users and news authenticity:

H1: *Higher frequency of social media use is associated with greater perceived authenticity of news content.*

H2: *Higher social media use is associated with stronger trust in news sources.*

H3: *Greater source trust is associated with higher perceived authenticity of news content.*

H4: *Digital literacy moderates the relationship between social media use and source trust.*

RESEARCH METHODOLOGY

This study adopted a quantitative research approach. A quantitative design was suitable because it allowed the researcher to measure perceptions and behaviors numerically and to analyze relationships among variables using statistical techniques. The study used descriptive-correlational research design. It assessed the relationships between these behaviors and the dependent variable news authenticity. The study employed a survey-based approach, where respondents answered questions related to their social media usage patterns, trust in source, news verification behaviors, and their ability to distinguish authentic news from misinformation.

The Survey targeted the active X users in the field of Media. Study targeted active social media users in the field of Media who consume news on X (formerly Twitter). Purposive sampling technique was used to select participants who actively use X for news consumption.

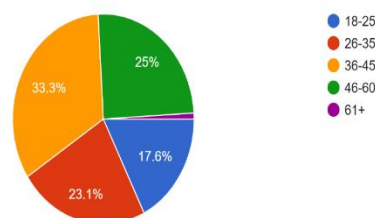
The sample size was of 111 participants, selected to represent the broader X user base. It also ensured sufficient data for meaningful statistical analysis as per previous studies.

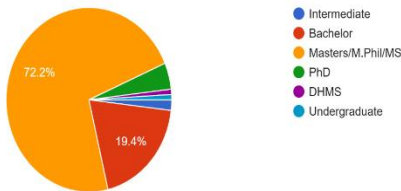
Data Analysis and Discussion

Respondents Profile

Through a questionnaire data was collected from respondents of various age groups and educational level.

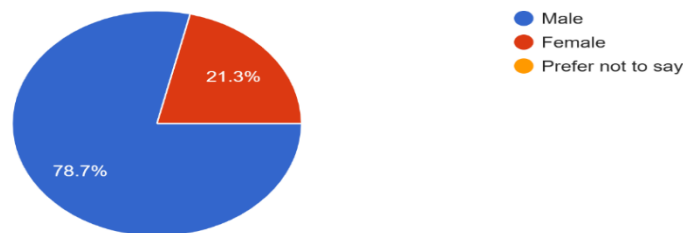
Age
108 responses



Education
108 responses

Response Rate

The questionnaire was sent to over 200 respondents out of which 111 responded positively with 03 submitted duly resulting into net 108 responses.

Gender
108 responses

Correlation Analysis

Table 1: Correlation Analysis

	SMU X	Source Trust	Digital literacy	News Authenticity
SMU X	1			
Source Trust	.556**	1		
Digital literacy	.193*	.431**	1	
News Authenticity	.357**	.496**	.479**	1

The Social Media Use shows a moderate and statistically significant positive correlation with Source Trust ($r = .556$, $p < .01$). This finding implies that individuals who engage more frequently with social media platforms tend to exhibit higher levels of trust in news sources encountered on these platforms. The strength of this relationship supports the assumption that repeated exposure may normalize and legitimize information sources for users.

The correlation coefficient of $r = .193$ indicates a weak yet positive relationship between Social Media Use (X) and Digital literacy. Furthermore, Social Media Use is positively correlated with Perceived News Authenticity ($r = .357$, $p < .01$). It indicates that increased social media engagement is associated with stronger perceptions that news content is authentic.

Also the Source Trust demonstrates a strong positive correlation with Perceived News Authenticity ($r = .496$, $p < .01$). This finding underscores the theoretical importance of source credibility in news evaluation processes.

Additionally, Digital literacy is positively and significantly associated with Source Trust ($r = .431$, $p < .01$) and Perceived News Authenticity ($r = .479$, $p < .01$). These results indicate that individuals with higher levels of digital literacy—reflecting digital literacy and literacy-oriented engagement—are more likely to trust news sources and perceive news content as authentic.

Regression Analysis

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	.357 ^a	.127	.119	.49543	.127	15.307	1	105	.000
2	.550 ^b	.303	.289	.44496	.175	26.168	1	104	.000
3	.637 ^c	.406	.389	.41259	.104	17.960	1	103	.000
4	.645 ^d	.415	.386	.41343	.009	.792	2	101	.456

a. Predictors: (Constant), Social media X

b. Predictors: (Constant), SocialX, Digital literacy

c. Predictors: (Constant), SocialX, Digital literacy, XDLProd1

d. Predictors: (Constant), SocialX, Digital literacy, XDLProd1, SocialTrust, XSTProd2

Coefficients^a

Model		Unstandardized Coefficients B	Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	2.831	.274		10.313	.000
	SocialX	.271	.069	.357	3.912	.000
2	(Constant)	1.685	.333		5.060	.000
	SocialX	.209	.063	.275	3.297	.001
	Digital literacy	.349	.068	.427	5.115	.000
3	(Constant)	-2.260	.981		-2.304	.023
	SocialX	1.383	.283	1.820	4.884	.000
	Digital literacy	1.343	.243	1.641	5.530	.000
	XDLProd1	-.294	.069	-2.163	-4.238	.000
4	(Constant)	-2.263	1.088		-2.080	.040
	SocialX	1.294	.352	1.702	3.674	.000
	Digital literacy	.934	.412	1.142	2.268	.025
	XDLProd1	-.192	.108	-1.416	-1.773	.079
	SocialTrust	.493	.435	.484	1.132	.260
	XSTProd2	-.099	.105	-.729	-.945	.347

a. Dependent Variable: News Authenticity

Model 1: Effect of Social Media Use on News Authenticity

The model was statistically significant ($F(1,105) = 15.31$, $p < .001$) and explained 12.7% of the variance in News Authenticity ($R^2 = .127$). Social Media Use emerged as a **significant positive predictor** of News Authenticity ($\beta = .357$, $t = 3.91$,

$p < .001$), indicating that higher levels of social media engagement are associated with stronger perceptions of news authenticity. This result provides empirical support for the hypothesis that social media use positively influences perceived news authenticity.

Model 2: Addition of Digital literacy

Digital literacy was added to the regression equation. This significantly improved the model, as reflected by a $\Delta R^2 = .175$ (F change = 26.17, $p < .001$). The model now accounted for **30.3% of the variance** in News Authenticity (Adjusted $R^2 = .289$). Both predictors were statistically significant. Social Media Use remained a positive predictor ($\beta = .275$, $p = .001$), while Digital literacy demonstrated a **stronger positive effect** ($\beta = .427$, $p < .001$). This indicates that individuals with higher digital literacy levels are substantially more likely to perceive news as authentic, beyond the effect of social media use alone.

Model 3: Moderation by Digital literacy (Interaction: SocialX × Digital literacy)

Model 3 introduced the interaction term **Social Media Usage X × Digital literacy (XDLProd1)** to test whether Digital literacy moderates the relationship between Social Media Use and News Authenticity. The inclusion of this interaction produced a **significant increase in explained variance** ($\Delta R^2 = .104$, F change = 17.96, $p < .001$), raising the total variance explained to **40.6%** (Adjusted $R^2 = .389$).

The interaction term was **negative and statistically significant** ($\beta = -2.163$, $p < .001$), indicating a **moderation effect**. This suggests that as Digital literacy increases, the positive relationship between Social Media Use and News Authenticity weakens. In other words, individuals with higher digital literacy appear to rely less on social media

use when judging news authenticity, likely due to greater evaluative or critical capacities.

Model 4: Addition of Source Trust and Its Interaction (Full Model)

In Model 4, **Source Trust** and its interaction term (**SocialX × Source Trust; XSTProd2**) were entered to examine an additional moderation effect. The increase in explained variance at this stage was **not statistically significant** ($\Delta R^2 = .009$, F change = .792, $p = .456$). The final model explained **41.5% of the variance** in News Authenticity (Adjusted $R^2 = .386$).

Neither Source Trust ($\beta = .484$, $p = .260$) nor its interaction with Social Media Use ($\beta = -.729$, $p = .347$) reached statistical significance. This indicates that, within the presence of other predictors and interaction terms, **Source Trust does not exert an independent or moderating influence** on perceived news authenticity.

Resultantly, the regression analysis demonstrates that:

1. **Social Media Use** significantly predicts News Authenticity perceptions.
2. **Digital literacy** is a strong independent predictor of News Authenticity.
3. **Digital literacy significantly moderates** the relationship between Social Media Use and News Authenticity, weakening reliance on social media cues among digitally literate users.
4. **Source Trust does not significantly moderate** the relationship once Digital literacy and its interaction are accounted for.

Results

Hypothesis	Statement	Key Empirical Evidence	Result
H1	Higher frequency of social media use is associated with greater perceived authenticity of news content.	Social media use showed a significant positive correlation with news authenticity ($r = .357$, $p < .01$) and emerged as a significant predictor in regression analysis ($\beta = .357$, $p < .001$).	Supported
H2	Higher social media use is associated with stronger trust in news sources.	Social media use demonstrated a moderate and statistically significant positive correlation with source trust ($r = .556$, $p < .01$).	Supported
H3	Greater source trust is associated with higher	Source trust was strongly and positively correlated with perceived news authenticity ($r = .496$, $p < .01$), indicating a robust association.	Supported

Hypothesis	Statement	Key Empirical Evidence	Result
	perceived authenticity of news content.		
H4	Digital literacy moderates the relationship between social media use and source trust.	The interaction effect involving digital literacy did not produce a significant increase in explained variance in regression analysis ($\Delta R^2 = .009$, $p > .05$).	Not Supported

Conclusion and Recommendations

Conclusion

This study examined how social media use on X (formerly Twitter), source trust, and digital literacy influence Pakistani users' perceptions of news authenticity in an increasingly complex digital information environment. In response to the growing prevalence of misinformation and the declining role of traditional editorial gatekeeping, the research sought to identify the key factors that shape how users evaluate the credibility of online news.

The findings of the study demonstrate that social media use plays a significant role in shaping perceptions of news authenticity. Increased engagement with X was associated with higher perceived authenticity of news content, suggesting that frequent exposure and familiarity with platform-based news can enhance users' confidence in the information they encounter. At the same time, source trust emerged as a critical determinant of authenticity judgments, confirming that trust in news sources remains central to credibility evaluation even within social media environments.

Importantly, the study highlights digital literacy as a decisive factor in contemporary news evaluation. Digital literacy not only positively influenced perceptions of news authenticity but also moderated the relationship between social media use and authenticity judgments. This indicates that digitally literate users are less reliant on social media exposure alone and are more likely to apply critical and evaluative strategies when assessing news content. In contrast, source trust did not exhibit a significant moderating effect when other variables were considered, suggesting that cognitive skills may outweigh trust-based heuristics in determining credibility judgments.

In conclusion, the study underscores that perceptions of news authenticity on X are shaped

by a dynamic interaction between platform usage, trust, and user competencies. The findings emphasize the importance of strengthening digital literacy to support informed and responsible news consumption. By contributing empirical evidence from Pakistan, this research enhances understanding of social media credibility and provides a foundation for future scholarly inquiry and practical interventions aimed at countering misinformation in digital media ecosystems.

Recommendations

Based on the findings and conclusions of the present study, several recommendations and suggestions are proposed to enhance news credibility assessment and promote responsible news consumption on X (formerly Twitter) in Pakistan.

Recommendations for Policymakers and Regulatory Bodies

Policymakers should prioritize the development and implementation of national digital literacy and media education initiatives. These programs should focus on enhancing users' abilities to critically evaluate online news, recognize misinformation, and understand the functioning of social media platforms. Collaboration between government agencies, educational institutions, and civil society organizations can help ensure that digital literacy initiatives reach a broad segment of the population.

Recommendations for Media Organizations and Journalists

Media organizations operating on X should strengthen transparency and verification practices by clearly identifying sources, providing contextual information, and correcting misinformation promptly. Journalists and news outlets are encouraged to adopt standardized fact-checking mechanisms and to actively engage with audiences to clarify ambiguous or misleading information. Such practices can help rebuild trust and reinforce professional credibility in digital spaces.

Recommendations for Educational Institutions

Educational institutions should formally integrate digital literacy and media education into academic curricula at secondary and higher education levels. Training students to verify information, assess source credibility, and understand algorithmic influences can equip future media users with essential evaluative skills. Workshops, seminars, and practical exercises focused on real-world social media content can further strengthen critical engagement.

Recommendations for Social Media Users

Users of X should be encouraged to adopt responsible news consumption behaviors, including cross-checking information with credible sources, avoiding reliance on popularity indicators such as likes or retweets, and refraining from sharing unverified content. Developing awareness of misinformation tactics and actively

engaging in verification practices can significantly reduce the spread of false or misleading news.

Suggestions for Platform-Level Interventions

Social media platforms such as X should consider enhancing visibility of credible sources, strengthening content labeling systems, and promoting fact-checked information during major events or crises. Improving user access to verification tools and digital literacy resources within the platform can further support informed decision-making.

Limitations

Like any academic study, this research has certain limitations that must be acknowledged. It focuses solely on X as a platform and does not examine news credibility on other widely used platforms such as Facebook, YouTube, WhatsApp or TikTok. As these also play important roles in Pakistan's information landscape. The study relies on self-reported survey data and Respondents might have presented themselves as more careful or critical than they actually are in practice. In addition, the sample of X users, while selected to be diverse, may not be fully representative of all users in Pakistan. Finally, the cross-sectional nature of the study means that it captures user perceptions and behaviors at a single point in time, rather than tracking changes over an extended period.

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