# Modeling the Influence of Digital Literacy on Fake News Belief and Resistance to Misinformation: A Quantitative Study

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## Abstract

Despite the high levels of digital engagement, India faces significant challenges in regard of fake news and misinformation due to limited levels of digital awareness and literacy. As Internet access has expanded rapidly, it is important to bridge the gap between digital usage and understanding. This study considers the need for empirically driven research on the different dimensions of digital literacy affecting the belief in fake news and resistance to misinformation in a diverse and complex digital landscape like India. A total of 262 Indian digital users were considered for conducting the study. Using principal component analysis (PCA), five factors corresponding to digital literacy were extracted. These include – Information Evaluation Skills, Media Literacy, Technical Digital Skills, Critical Thinking Ability and Source Verification Behaviour. The overall levels of digital literacy rates and resistance to information in the study were found to be at moderate level. The relatively lower levels of believe in fake news indicate a population who are aware but not entirely immune to misinformation online. Critical Thinking Ability and Source Verification Behaviour were observed to primary contributes towards fake news belief and resistance to misinformation. The study contributes by stating digital literacy not as a uniform construct but having differential effects on the outcomes. The role of cognitive skills like critical thinking abilities and source verification behaviour provide evidence on the consideration of such factors other than technical skills only.

***Keywords*** **–** digital, literacy, fake news, misinformation, quantitative**.**

## 1. Background

The expansion of digital technologies across the world has transformed the ways in which individuals can access, consume and share information (Warschauer & Matuchniak, 2010). The digital media platforms, especially social networking sites, messaging applications and various video sharing platforms, have consistently become primary sources of news and information (Kim, 2023). The transformation has led to the increased use of mobile devices among individuals belonging to different age groups. The impact of such access to information through a digital medium has showcased a special impact on a country like India, which has witnessed an exponential growth in its Internet penetration and smartphone usage (Aarzoo & Lal, 2026b). However, the results estimate that although India has over 950 million Internet users (The Hindu Bureau, 2026), the expansion is highly accompanied by an even level of digital competence. This brings a persistent challenge of the digital divide between access and the actual digital literacy rate (Lal & Sharma 2021).

The use of digital media has democratised access to information but has largely facilitated the spread of misinformation and fake news, creating what is often referred to as "infodemic" (Garaschuk & Serhieiev, 2025). India faces a challenge of fake news propagation as a significant societal concern. The vast majority of users consider misinformation as a serious issue that affects public opinion. It is intensified by the high use of social media platforms like WhatsApp, YouTube and Facebook which have primarily become sources of news consumption . India, being the largest market for WhatsApp, experiences high levels of message forwarding, often driven by trust in personal networks such as family and friends, thereby accelerating the spread of unverified information (Stoll, 2025).

Empirical studies in the area have highlighted the scale of this issue. Studies indicated how misinformation surged significantly during events like COVID-19 pandemic caused serious concerns globally (Monsees, 2023; Singh & Banga, 2022). The social media responsible for high levels of misinformation dissemination often generate fake news narratives and the emergence of advanced artificial intelligent technologies has complicated the process. Many individuals are exposed to fake news to multiple methods (Lal & Aarzoo, 2026b). These include peer-to-peer sharing in private messaging groups, algorithm driven feeds or viral multimedia content exposure in the form of videos and images (Katyal et al., 2024). Research

on the usage of such platforms in India showed how misinformation often circulates within the closed groups with repeated exposure and social reinforcement increasing the perceived levels of credibility (Lal et al., 2024).

Despite the high levels of digital engagement, India faces significant challenges in regard of fake news and misinformation due to limited levels of digital awareness and literacy. As Internet access has expanded rapidly, it is important to bridge the gap between digital usage and understanding (Lal & Aarzoo, 2026a). This study considers the need for empirically driven research on the different dimensions of digital literacy affecting the belief in fake news and resistance to misinformation in a diverse and complex digital landscape like India (Lal & Aarzoo, 2026c). Given the increasing penetration of digital media and the simultaneous rise of misinformation, it becomes crucial to understand how individuals process and respond to fake news (Aarzoo & Lal, 2026a).

With a multi-dimensional framework including technical and cognitive aspects of digital media use, the study attempts to understand the following research objectives –

1. To estimate the dimensions of digital literacy that influence fake news belief among individuals
2. To identify the dimensions of digital literacy that are most effective in reducing susceptibility to fake news
3. To analyse the impact of digital literacy dimensions on building resistance to misinformation among Indian digital users

The next section provides a detailed review of the methodological framework generated to derive the empirical answers to the above questions.

## 2. Research Methodology

In order to understand the influence of digital literacy on fake news belief and the levels of resistance created towards misinformation, the study here undertakes a detailed descriptive investigation led by a quantitative approach. Using both primary and secondary sources of data, the study here leads an empirical investigation which tests the relationship among the selected variables. The secondary sources of data were drawn from journal articles, books and reports

on digital literacy and media studies. For the primary sources of data collection, the following methodological approach was adopted.

### *2.1 Population of the Study*

The geographical scope of the study, based on the research gap identified was limited to the country of India where instances of digital divide persists. The population of the study here include any individual using mobile phones for seeking news and residing in the developing nation of India.

### *2.2 Sampling Technique and Sample Size*

For selecting the sampling unit, a non-probabilistic sampling technique was deployed. A judgment sampling technique was applied for the study where the following inclusion criteria were considered essential-

1. Respondents must be above the age of 18.
2. Each respondent must have the experience of browsing news through their mobile phones.

In order to determine the ample sample size, the study uses the minimum sample size requirement of 200 suggested by Kline, (2016) for conducting advanced statistical methods like regression. Hence, a total of 262 respondents with complete datasets were considered for the final level of investigation.

### *2.3 Survey Instrument*

For collecting the required datasets from the individuals, the study constructed a structured questionnaire in the 5 Point Likert Type scale. The study identified a total of seven factors which were used to create the model. A set of five independent factors representing various aspects of digital literacy were included. A total of two dependent variables were used to fulfil the established research questions in the study. The table below represents the factors used for the study and the definition considered moving forward.

**Table 1 – List of Variables in the Study**

| Factor Name | Type | Description |
|---|---|---|

| | | |
|---|---|---|
| Information Evaluation Skills | Independent | It represents the ability of the respondent to evaluate the accuracy, credibility and relevance of the online information they are being exposed to. |
| Media Literacy | Independent | It is the capacity to understand, analyze, and interpret media content with the ability of distinguishing between different types of information and how they influences individual perceptions and beliefs. |
| Technical Digital Skills | Independent | It is proficiency of using the available digital tools and navigate online information. |
| Critical Thinking Ability | Independent | The factor represents the cognitive ability of an individual to objectively analyze and evaluate information to be able to make reasoned judgments. |
| Source Verification Behaviour | Independent | It is the extent to which individuals actively verify the authenticity and credibility of information sources before accepting or sharing information. |
| Fake News Belief | Dependent | It is the degree to which individuals accept, trust, or consider false or misleading information as true when they encounter them through different digital media platforms |
| Resistance to Misinformation | Dependent | It refers to the ability and tendency of individuals to critically question, reject, and refrain from believing or spreading false or misleading information, even after being exposed to it repeatedly. |

Based on the model above, the following null hypotheses would be tested in the upcoming data collection method.

***$H_{01}$:*** *There is no significant impact of Information Evaluation Skills on Fake News Belief.*

***$H_{02}$:*** *Information Evaluation Skills have no significant effect on Resistance to Misinformation.*

***$H_{03}$:*** *The factor of Media Literacy has no significant effect on Fake News Belief.*

***$H_{04}$:*** *The factor of Media Literacy has no significant effect on Resistance to Misinformation.*

***$H_{05}$:*** *Technical Digital Skills does not cause any significant effect on Fake News Belief.*

***$H_{06}$:*** *Technical Digital Skills have no significant impact on Resistance to Misinformation.*

***$H_{07}$:*** *Critical Thinking Ability has no significant impact on Fake News Belief.*

***$H_{08}$:*** *Critical Thinking Ability has no significant impact on Resistance to Misinformation.*

***$H_{09}$:*** *The factor of Source Verification Behaviour has no significant effect on Fake News Belief.*

***$H_{010}$:*** *Source Verification Behaviour has no significant effect on Resistance to Misinformation.*

The detailed statistical analyses involving the responses generated through the variables above are provided in the next section.

## 3. Data Analysis

A total of 262 responses were considered for the final investigation where the datasets are complete and do not include any missing data. Before examining the considered factors, the demographic overview of the respondents are provided below.

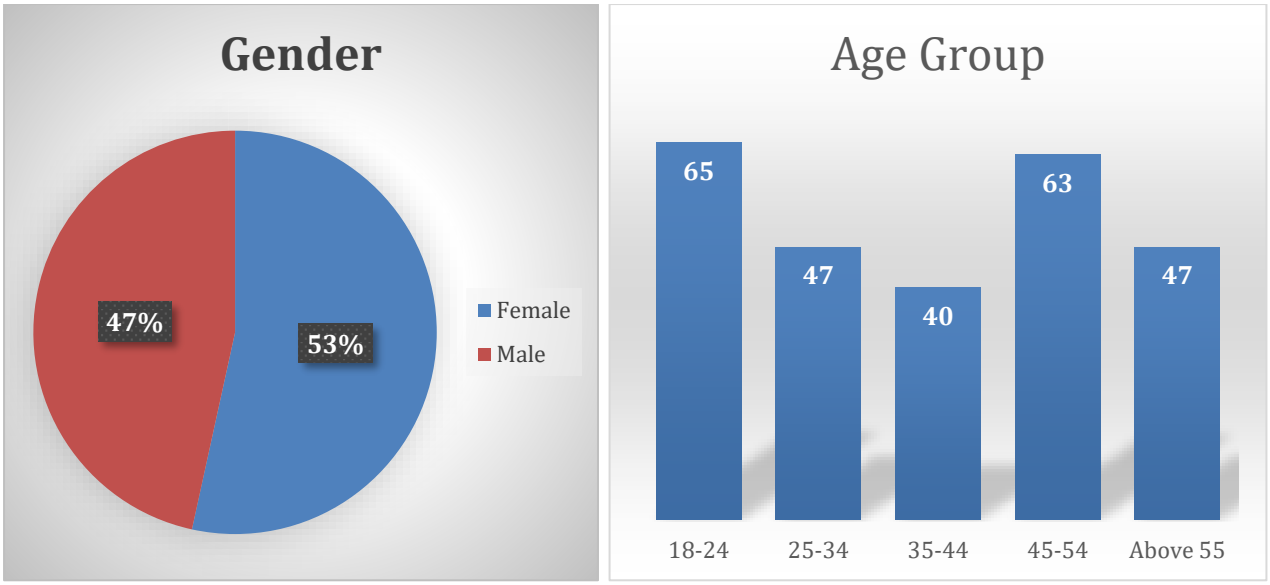


Figure 1 – Frequency Distribution for Gender and Age Group

The respondents in the study belong to both male and female digital users. While the sample represents 53% of female respondents, there are 47% male respondents found in the study. The age group considered range from 18 to more than 55 years. As the use of digital media for news are spread across diverse age groups, considering respondents from different groups shall generate useful insights. 24.8% respondents belong to 18 to 24 years of age followed by 24% in the 45 to 54 years. There are 17.9% respondents in each 25-34 years and above 55 years of age. Remaining 15.3% belong to 35 to 44 years of age group.

In order to move further in the investigation, the study includes a detailed method of factor reduction using Principal Componenet Analysis (PCA) followed by model development using multiple linear regerssion. Each of the phases in the process are divided into different sub-sections.

### *3.1 Extracting Underlying Factors*

The conceptual model designed for the study include five independent and two dependent factors. In order to establish the dimensionality of the considered items, the PCA is initiated. The process uses the varimax rotation method to extract all the underlying factors with an eigen value of more than 1. The acceptable level considered for the item wise factor loadings is 0.4 as suggested by (Hair et al., 2006) as appropriate for a sample size of more than 200.

**Table 2 – Component Loadings**

| | Component | | | | | | |
|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| I verify the credibility of online information before accepting it as true. | | 0.535 | | | | | |
| I check multiple sources before believing a news story. | | 0.484 | | | | | |
| I can identify misleading headlines online. | | 0.573 | | | | | |
| I understand that online content can be biased or manipulated. | | | | | 0.516 | | |
| I am aware of how media can influence public opinion. | | | | | 0.462 | | |
| I can distinguish between news, opinion, and advertisements. | | | | | 0.456 | | |
| I know how to search for reliable information online. | 0.607 | | | | | | |
| I can use fact-checking websites effectively. | 0.492 | | | | | | |
| I am confident in navigating different online platforms for information. | 0.548 | | | | | | |

**Table 2 – Component Loadings**

| | Component | | | | | | |
|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| I question the accuracy of information shared on social media. | | | 0.561 | | | | |
| I analyze news content before forming an opinion. | | | 0.525 | | | | |
| I think carefully before trusting viral content. | | | 0.546 | | | | |
| I check the author or publisher of news articles. | | | | | | | 0.400 |
| I verify whether a news source is trustworthy. | | | | | | | 0.523 |
| I look for evidence before believing information. | | | | | | | 0.490 |
| I sometimes believe news shared on social media without verification. | | | | -0.544 | | | |
| I find it difficult to distinguish fake news from real news. | | | | -0.803 | | | |
| I trust information even if the source is unclear. | | | | -0.661 | | | |
| I avoid sharing information unless I am sure it is true. | | | | | | 0.622 | |
| I actively question suspicious news content. | | | | | | 0.675 | |

**Table 2 – Component Loadings**

| | Component | | | | | | |
|---|---|---|---|---|---|---|---|
| | **1** | **2** | **3** | **4** | **5** | **6** | **7** |
| I resist believing information without proper evidence. | | | | | | 0.594 | |

Note. 'varimax' rotation was used

Based on the PCA conducted, a total of seven factors were extracted whose eigen values were more than 1. As all the items showcase factor loading of 0.4 and more, all items shall be considered for constructing the set of factors in the study.

Further, the use of Kaiser-Meyer-Olkin (KMO) and Bartlett's test for sampling adequacy showed a KMO value of 0.943 and p-value of less than 0.01, indicating the samples as adequate for conducting further investigation.

### *3.2 Descriptive Analysis of the Extracted Factors*

As the set of factors are extracted, in the next section of the study descriptive analysis is conducted to understand the agreement levels of the respondents to the factors.

**Table 3 – Descriptives**

| | **N** | **Mean** | **Median** | **SD** | **Minimum** | **Maximum** |
|---|---|---|---|---|---|---|
| **Information Evaluation Skills** | | | | | | |
| I verify the credibility of online information before accepting it as true. | 262 | 3.42 | 3.00 | 0.732 | 1 | 5 |

**Table 3 – Descriptives**

| | N | Mean | Median | SD | Minimum | Maximum |
|---|---|---|---|---|---|---|
| I check multiple sources before believing a news story. | 262 | 3.42 | 3.00 | 0.732 | 1 | 5 |
| I can identify misleading headlines online. | 262 | 3.42 | 3.00 | 0.695 | 1 | 5 |
| **Media Literacy** | | | | | | |
| I understand that online content can be biased or manipulated. | 262 | 3.42 | 3.00 | 0.747 | 1 | 5 |
| I am aware of how media can influence public opinion. | 262 | 3.41 | 3.00 | 0.736 | 1 | 5 |
| I can distinguish between news, opinion, and advertisements. | 262 | 3.42 | 3.00 | 0.727 | 1 | 5 |
| **Technical Digital Skills** | | | | | | |
| I know how to search for reliable information online. | 262 | 3.43 | 3.00 | 0.743 | 1 | 5 |
| I can use fact-checking websites effectively. | 262 | 3.43 | 3.00 | 0.712 | 1 | 5 |
| I am confident in navigating different online platforms for information. | 262 | 3.44 | 3.00 | 0.718 | 1 | 5 |
| **Critical Thinking Ability** | | | | | | |
| I question the accuracy of information shared on social media. | 262 | 3.40 | 3.00 | 0.730 | 1 | 5 |
| I analyze news content before forming an opinion. | 262 | 3.41 | 3.00 | 0.731 | 1 | 5 |

**Table 3 – Descriptives**

| | N | Mean | Median | SD | Minimum | Maximum |
|---|---|---|---|---|---|---|
| I think carefully before trusting viral content. | 262 | 3.41 | 3.00 | 0.757 | 1 | 5 |
| **Source Verification Behaviour** | | | | | | |
| I check the author or publisher of news articles. | 262 | 3.40 | 3.00 | 0.746 | 1 | 5 |
| I verify whether a news source is trustworthy. | 262 | 3.43 | 3.00 | 0.706 | 1 | 5 |
| I look for evidence before believing information. | 262 | 3.43 | 3.00 | 0.733 | 1 | 5 |
| **Fake News Belief** | | | | | | |
| I sometimes believe news shared on social media without verification. | 262 | 2.56 | 3.00 | 0.733 | 1 | 5 |
| I find it difficult to distinguish fake news from real news. | 262 | 2.59 | 3.00 | 0.772 | 1 | 5 |
| I trust information even if the source is unclear. | 262 | 2.60 | 3.00 | 0.739 | 1 | 5 |
| **Resistance to Misinformation** | | | | | | |
| I avoid sharing information unless I am sure it is true. | 262 | 3.43 | 3.00 | 0.722 | 1 | 5 |
| I actively question suspicious news content. | 262 | 3.41 | 3.00 | 0.752 | 1 | 5 |
| I resist believing information without proper evidence. | 262 | 3.44 | 3.00 | 0.729 | 1 | 5 |

The descriptive statistics across the items measuring the seven factors used in the study indicate a comprehensive overview about the respondents levels of digital literacy and their susceptibility to fake news and misinformation. The findings indicate a moderate level of digital literacy and resistance among the respondents while a lower tendency to believe fake news is observed.

Considering the five dimensions of digital literacy, the main scores were found to range between 3.40 and 3.44, with a median of 3. This indicates the respondents' moderate level of agreement in their ability to evaluate, interpret and verify the different information available online. In the case of the factor of technical digital skills, a slightly higher level of mean values ranging to 3.44 is observed. This indicates the presence of confidence among the respondents about navigating the digital platforms and accessing information. However, when looking into the main scores for factors such as critical thinking ability and source verification behaviour, the translation of such technical digital skills is not quite high. As moderate levels of these factors emerge among the respondents, the results suggest that although individuals question the information sought online, such behaviour might not be fully ingrained or habitual in nature.

The low means scores for the construct of fake news belief, ranging from 2.56 to 2.60, indicate that respondents disagree or remain neutral about believing any verified or unclear information online. They suggest that relatively low levels of susceptibility to misinformation exist and showcase a positive indicator of the concern. The resistance to misinformation stands at a moderate level with respondents agreeing to avoid sharing unverified information which are suspicious. This indicates the presence of a reasonable level of cautious behaviour and aligns with the moderate level of digital literacy observed among the respondents.

The standard deviation values, when considered across all the factors extracted, range between 0.70 and 0.75 and showcase a moderate level of variability. This suggests that although the trend is consistent, there are individual differences in the levels of digital literacy and misinformation-related behaviour among the individuals.

To summarise the findings from the descriptive analytics of the factors generated, it can be mentioned that a moderate level of digital literacy exist among the individuals as they hold a fair level of resistance to misinformation and has relatively low susceptibility to fake news.

**Table 4 – Descriptives for all Factors**

| | N | Mean | Median | SD | Minimum | Maximum |
|---|---|---|---|---|---|---|
| Information Evaluation Skills | 262 | 3.45 | 3.33 | 0.690 | 1.00 | 5.00 |
| Media Literacy | 262 | 3.44 | 3.33 | 0.705 | 1.00 | 5.00 |
| Technical Digital Skills | 262 | 3.43 | 3.33 | 0.702 | 1.00 | 5.00 |
| Critical Thinking Ability | 262 | 3.41 | 3.33 | 0.722 | 1.00 | 5.00 |
| Source Verification Behaviour | 262 | 3.42 | 3.33 | 0.707 | 1.00 | 5.00 |
| Fake News Belief | 262 | 2.59 | 2.67 | 0.697 | 1.00 | 5.00 |
| Resistance to Misinformation | 262 | 3.43 | 3.33 | 0.698 | 1.00 | 5.00 |

The overall mean scores generated across the seven extracted factors show that the highest score stands at 3.45 for the factor of Information Evaluation skills. It is closely followed by the factor of media literacy, standing at 3.44. The lowest score among all the factors stands at 2.59 for the factor of Fake News Belief, indicating a moderate level of digital skills and low levels of belief in any unverified source of information.

### *3.3 The Impact of Digital Literacy on Fake News Belief and Resistance to Misinformation*

In order to establish the impact of the five factors associated with digital literacy on Fake News Belief and Resistance to Misinformation, two linear regression models are generated. The first model includes Fake News Belief as the dependent factor and the second model considers Resistance to Misinformation as the same. The models generated are as follows –

**Table 5 – Model Fit Measures – Model 1**

| | | | | Overall Model Test | | | |
|---|---|---|---|---|---|---|---|
| **Model** | **R** | **$R^2$** | **Adjusted $R^2$** | **F** | **df1** | **df2** | **p** |
| 1 | 0.958 | 0.917 | 0.915 | 566 | 5 | 256 | < .001 |

**Table 6 – Model Coefficients - Fake News Belief– Model 1**

| **Predictor** | **Estimate** | **SE** | **t** | **p** |
|---|---|---|---|---|
| Intercept | 5.8591 | 0.0644 | 90.917 | < .001 |
| Information Evaluation Skills | -0.0918 | 0.0731 | -1.255 | 0.210 |
| Media Literacy | -0.0421 | 0.0804 | -0.523 | 0.601 |
| Technical Digital Skills | -0.2231 | 0.0958 | -2.329 | 0.021 |
| Critical Thinking Ability | -0.1878 | 0.0848 | -2.215 | 0.028 |
| Source Verification Behaviour | -0.4111 | 0.0928 | -4.432 | < .001 |

The first model generated shows its statistical significance, with the p-value generated being less than 0.05. The adjusted $R^2$ value stands at 0.915 suggesting a high variance in susceptibility to fake news depending upon the levels of digital literacy. The model co-efficient across the five independent factors shows only three factors having a statistically significant impact on the dependent variable. They are - Technical Digital Skills, Critical Thinking Ability and Source Verification Behaviour. As all of them have a p-value of less than 0.05, they cause a significant variance in the levels of fake news belief with a unit change in each factor. The estimates indicate the highest impact of source verification behaviour, followed by technical digital skills. This suggest that the levels of belief an individual shows on fake news across social media platforms decrease as their ability to verify source through technically sound digital navigation. Further, as the critical thinking ability of the respondents increase, the amount of belief they show towards fake news decrease.

**Table 7 – Model Fit Measures- Model 2**

| | | | | Overall Model Test | | | |
|---|---|---|---|---|---|---|---|
| **Model** | **R** | **$R^2$** | **Adjusted $R^2$** | **F** | **df1** | **df2** | **p** |
| 1 | 0.965 | 0.932 | 0.931 | 703 | 5 | 256 | < .001 |

**Table 8 – Model Coefficients - Resistance to Misinformation – Model 2**

| **Predictor** | **Estimate** | **SE** | **t** | **p** |
|---|---|---|---|---|
| Intercept | 0.1457 | 0.0584 | 2.496 | 0.013 |
| Information Evaluation Skills | 0.0732 | 0.0662 | 1.106 | 0.270 |
| Media Literacy | 0.1688 | 0.0728 | 2.318 | 0.021 |
| Technical Digital Skills | -0.0476 | 0.0868 | -0.549 | 0.584 |
| Critical Thinking Ability | 0.3812 | 0.0768 | 4.965 | < .001 |
| Source Verification Behaviour | 0.3831 | 0.0840 | 4.562 | < .001 |

The next model, considering Resistance to Misinformation as the dependent variable, also generated a statistically significant model with a p-value of less than 0.05. The adjusted $R^2$ stands at 0.931, representing a high variance in the levels of resisting misinformation based on the impact of the independent variables. The model coefficient table shows that media literacy, critical thinking ability and source verification behaviour have a significant positive impact on resistance to misinformation. The factors of Information Evaluation Skills and Technical Digital Skills do not significantly impact the dependent variable. The estimates suggest that with 0.3831 and 0.3812, source verification behaviour and critical thinking ability are the two most influential factors in the context.

Based on the above-generated models, the overview of the hypotheses tested is provided below.

**Table 9 – Status of Hypothesis Testing**

| Hypothesis | Estimate | p-value | Status |
|---|---|---|---|
| ***$H_{01}$:*** *There is no significant impact of Information Evaluation Skills on Fake News Belief.* | -0.0918 | 0.210 | Not Rejected |
| ***$H_{02}$:*** *Information Evaluation Skills have no significant effect on Resistance to Misinformation.* | 0.0732 | 0.270 | Not Rejected |
| ***$H_{03}$:*** *The factor of Media Literacy has no significant effect on Fake News Belief.* | -0.0421 | 0.601 | Not Rejected |
| ***$H_{04}$:*** *The factor of Media Literacy has no significant effect on Resistance to Misinformation.* | 0.1688 | 0.021 | Rejected |
| ***$H_{05}$:*** *Technical Digital Skills does not cause any significant effect on Fake News Belief* | -0.2231 | 0.021 | Rejected |
| ***$H_{06}$:*** *Technical Digital Skills have no significant impact on Resistance to Misinformation.* | -0.0476 | 0.584 | Not Rejected |
| ***$H_{07}$:*** *Critical Thinking Ability has no significant impact on Fake News Belief.* | -0.1878 | 0.028 | Not Rejected |
| ***$H_{08}$:*** *Critical Thinking Ability has no significant impact on Resistance to Misinformation.* | 0.3812 | < .001 | Rejected |
| ***$H_{09}$:*** *The factor of Source Verification Behaviour has no significant effect on Fake News Belief* | -0.4111 | < .001 | Rejected |
| ***$H_{010}$:*** *Source Verification Behaviour has no significant effect on Resistance to Misinformation* | 0.3831 | < .001 | Rejected |

The two models generated here indicate various implications for future which are discussed in the upcoming section.

## 4. Discussion and Implications

The study here offers important insights about the relationship between digital literacy and misinformation outcomes when considering a diverse group of the Indian population. The study, after integrating factor analyses and regression modelling, identifies the digital literacy factors which contribute highly to the influence of fake news belief and resistance to misinformation.

The descriptive results revealed a moderate level of digital literacy across all five dimensions and a comparatively low level of susceptibility to fake news, but only moderate resistance to misinformation. This aligns with the previous studies conducted by (Geers et al., 2024; Puig et al., 2021), who mention the importance of evaluative and critical engagement in between widely spread general awareness of misinformation. A moderate mean value among the digital literacy factors show that while basic competencies are present among the individuals, the consistency in application lack in the real world environment. It coincides with the argument by (Avni & Rotem, 2019) suggesting digital literacy as a multi-dimensional layer and how technical competence alone does not guarantee effective information evaluation.

The regression findings also generate interesting inside dimensions of digital literacy equally influence misinformation outcomes. According to the regression model, fake news belief is significantly but negatively associated with the factors of technical digital skills, critical thinking ability and source verification behaviour. The strongest impact caused by source verification behaviour indicates that individuals who actively look for sources of news articles, authors, and the evidence around it can significantly less likely to believe in fake news. This finding strongly corroborates prior research (Bodaghi et al., 2024; McGrew, 2024), where emphasis was laid on methods such as lateral reading and source verification as the most effective strategies for combating misinformation. The role of critical thinking aligns with previous studies by Li et al., 2022), who found that individuals with higher analytical thinking are less susceptible to misinformation.

The role of information evaluation skills and media literacy being non-significant indicators of news suggest the presence of a gap between the perceived ability and the actual behavioural application in the digital world. The individual may have an understanding of media bias but they do not consistently apply the skills when encountering information online in the real.

The next model predicting the factors impacting resistance to misinformation ascertains the role of critical thinking ability and source verification behaviour as critical. This coincides with theories such as Elaboration Likelihood Model (Petty & Cacioppo, 1986), which suggests that deeper cognitive processing leads to more resistant attitudes toward persuasive or misleading information. The significance of media literacy can be found effective in this model where the awareness about media manipulation does not seem to directly prevent the belief in fake news, but it does enhance their ability to resist spreading misinformation. Another key

observation is that technical digital skills do not significantly contribute to resistance to misinformation, despite being significant in reducing fake news beliefs. This indicates that while technical proficiency may help individuals access diverse information and tools, it does not necessarily translate into cautious or responsible behavior.

The results offered various practical perspectives, which are important in the economy of India where instances of digital divide persist. Firstly, the interventions aiming to combat misinformation in the digital media must move beyond general awareness campaigns and focus on developing source verification habits and enhancing critical thinking skills. The policymakers must incorporate training modules that can teach the users how to verify resources, cross-examine the information and evaluate the underlying evidence provided. Secondly, the improvement of technical digital skills is important; they must not be treated as sufficient in isolation. The digital skill development programs must also indicate behavioural and cognitive components to ensure that the skills are translated into practice in the real world. Thirdly, the need for targeted media literacy initiatives can help to strengthen the resistance to misinformation even when individuals are constantly exposed to emotionally charged content. The study here advances the understanding of digital literacy by focusing on the role played by behavioral and cognitive dimensions like critical thinking ability, rather than estimating only the role of technical skills.

## 5. Conclusion and Future Research Directions

The increasing exposure of individuals to digital media platforms have made the encounter with fake news and misinformation very high. As India is home to a diverse set of population, it is important to generate a strong empirical evidence about digital literacy in shaping an individual's behaviour towards fake news and misinformation. The overall levels of digital literacy rates and resistance to information in the study were found to be at a moderate level. The relatively lower levels of belief in fake news indicate a population who are aware but not entirely immune to misinformation online. The study contributes by stating that digital literacy not a uniform construct but has differential effects on the outcomes. The role of cognitive skills like critical thinking abilities and source verification behaviour provides evidence on the consideration of such factors other than technical skills only.

The present study offers several valuable insights which open avenues for future research. The cross-sectional design of the study limits its ability to establish a causal relationship, and hands, longitudinal designs identifying the role of digital literacy interventions on misinformation outcomes can provide stronger inferences. The study relies on self-reported measures and might be subject to social desirability bias or overestimation of the individual competencies. Future research can include behavioural experiments or performance-based assessments, which can help to overcome such bias. The current study does not explicitly account for psychological and emotional factors, such as cognitive biases, trust, and emotional responses to content, which are known to influence misinformation behavior. Future studies could integrate these variables into a comprehensive model combining digital literacy and psychological determinants, thereby offering a more holistic understanding of misinformation susceptibility.

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