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**THE MODERATING ROLE OF SOCIAL MEDIA LITERACY ON THE  
PREDICTORS OF FAKE NEWS SHARING BEHAVIOR IN CHINA**



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**DOCTOR OF PHILOSOPHY  
UNIVERSITI UTARA MALAYSIA  
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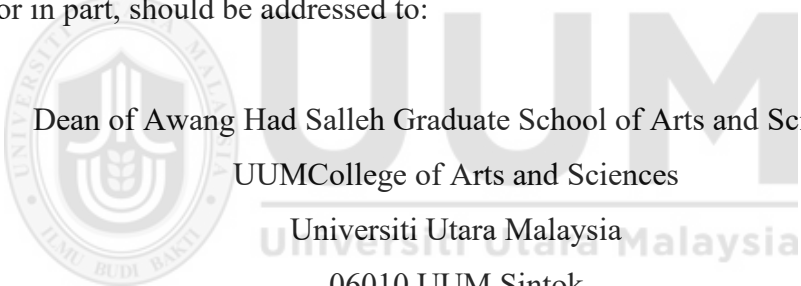
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## Abstrak

Penggunaan media sosial yang meluas telah mengubah cara individu berkongsi dan mengkonsumsi maklumat dengan ketara, di samping mempercepatkan penyebaran berita palsu. Kajian ini menyiasat pembolehubah yang meramalkan tingkah laku perkongsian berita palsu (FNSB) dalam kalangan pelajar kolej di Wilayah Shandong, China, memfokuskan kepada empat faktor utama: perkongsian maklumat (ISR), pencarian maklumat (ISK), kepercayaan dalam laman rangkaian sosial (TSNS) dan ekspresi diri (SE). Di samping itu, kajian ini turut mengkaji peranan literasi media sosial (SML) dalam memoderasi hubungan ini. Reka bentuk penyelidikan kuantitatif telah digunakan, dan data dikumpul melalui soal selidik yang ditadbir sendiri dan dianalisis menggunakan Pemodelan Persamaan Struktur Separa Kuasa Dua Terkecil. Penemuan mendedahkan bahawa keempat-empat pembolehubah mempunyai hubungan positif yang signifikan dalam meramal tingkah laku perkongsian berita palsu (FNSB), pencarian maklumat (ISK) dalam laman rangkaian sosial muncul sebagai peramal terkuat. Tambahan pula, literasi media sosial (SML) didapati memoderasi hubungan antara kepercayaan (TSNS) dalam laman rangkaian sosial dan tingkah laku perkongsian berita palsu (FNSB), dan antara ekspresi diri dan tingkah laku perkongsian berita palsu. Walau bagaimanapun, ia tidak memoderasi secara signifikan perhubungan yang melibatkan perkongsian maklumat (ISR) dan pencarian maklumat (ISK). Keputusan ini menunjukkan bahawa walaupun keempat-empat faktor menyumbang kepada kemungkinan berkongsi berita palsu, literasi media sosial boleh mengurangkan tingkah laku ini dengan mempengaruhi cara individu mentafsir dan terlibat dengan kandungan media sosial, terutamanya dalam konteks kepercayaan dan ekspresi diri. Kajian ini menawarkan kedua-dua pandangan teori dan praktikal dengan meningkatkan pemahaman tentang mekanisme penyebaran berita palsu dan dengan serta memaklumkan strategi untuk meningkatkan literasi digital dan penglibatan kritikal dalam kalangan pelajar kolej. Penemuan ini berharga untuk pendidik, penggubal dasar dan platform media sosial yang bertujuan untuk mengurangkan maklumat salah dan mempromosikan tingkah laku dalam talian yang bertanggungjawab.

**Kata kunci:** Tingkah Laku Perkongsian Berita Palsu, Literasi Media Sosial, Pelajar Kolej, Pemodelan Persamaan Struktur Separa Kuasa Dua Terkecil

## Abstract

The widespread use of social media has significantly altered how individuals share and consume information, accelerating the spread of fake news. This study investigates the predictors of fake news sharing behavior (FNSB) among college students in China, focusing on four key factors: information sharing (ISR), information seeking (ISK), trust in social networking sites (TSNS), and self-expression (SE). It also examines the moderating role of social media literacy (SML) in these relationships. A quantitative research design was employed, using a self-administered questionnaire and Partial Least Squares Structural Equation Modeling for analysis. The findings confirm that all four predictors have significant positive relationships with FNSB, with ISK being the strongest. Crucially, SML was found to significantly strengthen the relationships between TSNS and FNSB, and between SE and FNSB, while it did not significantly moderate the relationships involving ISR and ISK. These results reveal a nuanced role of SML, suggesting that it does not uniformly protect against fake news but can, in contexts of high platform trust or strong self-expression, amplify the sharing behavior. This study offers critical theoretical and practical insights by challenging conventional assumptions about digital literacy and informing the development of more sophisticated strategies to mitigate misinformation among college students.

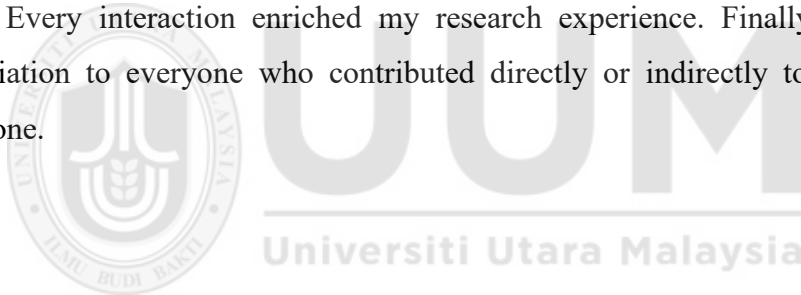
**Keywords:** Fake News Sharing Behavior, Social Media Literacy, College Students, Partial Least Squares Structural Equation Modeling



## Acknowledgement

First and foremost, I would like to express my deepest gratitude to my supervisor, Dr. Mohd Noor Abdul Hamid, for his invaluable guidance, patience, and continuous support throughout my doctoral journey at Universiti Utara Malaysia. His expertise and encouragement were instrumental in shaping this research. I am equally grateful to the university administration for providing excellent research facilities and a conducive learning environment. To my friends, thank you for the stimulating discussions, shared struggles, and moral support that kept me motivated during challenging times.

I owe immense gratitude to my family for their unwavering love, sacrifices, and belief in my capabilities. This achievement would not have been possible without their emotional and practical support. Thank all participants who contributed to this study. Every interaction enriched my research experience. Finally, I extend my appreciation to everyone who contributed directly or indirectly to this academic milestone.



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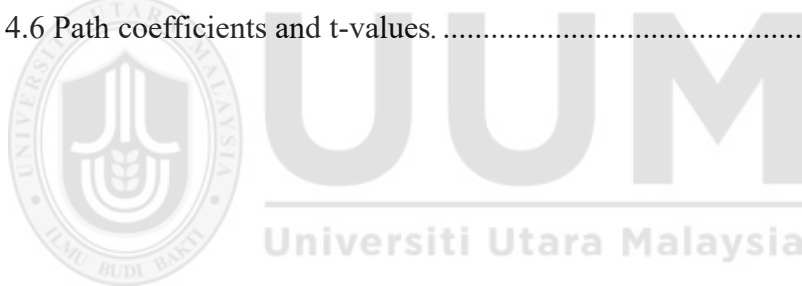
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## List of Abbreviations

|             |                                   |
|-------------|-----------------------------------|
| <b>ISR</b>  | Information Sharing               |
| <b>ISK</b>  | Information Seeking               |
| <b>TSNS</b> | Trust in Social Networking Sites  |
| <b>SE</b>   | Self-Expression                   |
| <b>SML</b>  | Social Media Literacy             |
| <b>FNSB</b> | Fake News Sharing Behavior        |
| <b>RCT</b>  | Rational Choice Theory            |
| <b>TAM</b>  | Technology Acceptance Model       |
| <b>AVE</b>  | Average Variance Extracted        |
| <b>VIF</b>  | Variance Inflation Factors        |
| <b>KMO</b>  | Kaiser-Meyer-Olkin                |
| <b>THMT</b> | The Heterotrait - Monotrait ratio |

# CHAPTER ONE

## INTRODUCTION

### 1.1 Introduction

In the contemporary digital era, social media has become a part of daily life by providing individuals with platforms for communication, information exchange, and self-expression ( Falloon, 2020; Krishna et al., 2022). However, widespread usage of social media has also aided in the spread of fake news, which can have detrimental effects on public opinion and media credibility (Majerczak & Strzelecki, 2022). Therefore, understanding the drivers of Fake News Sharing Behavior (FNSB) is crucial for mitigating its societal harm. This study investigates the impact of key behavioral factors, Information Sharing (ISR), Information Seeking (ISK), Trust in Social Networking Sites (TSNS), and Self-Expression (SE), on Fake News Sharing Behavior (FNSB).

However, a crucial gap exists in understanding how these behavioral relationships can be mitigated through individual competencies. This research introduces Social Media Literacy (SML) as a pivotal moderating variable. SML involves understanding how online content is produced, identifying misinformation, and making ethical decisions when sharing. It is hypothesized that SML may weaken the influence of Information Sharing (ISR), Information Seeking (ISK), Trust in Social Networking Sites (TSNS), and Self-Expression (SE) on Fake News Sharing Behavior (FNSB). By elucidating this moderating role, this study aims to provide actionable insights for developing targeted interventions to equip individuals with the skills to critically navigate the digital information landscape and mitigate the spread of fake news.

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## **Appendix A**

### **Questionnaire**

Dear Participant,

Thank you for taking part in our survey. This study aims to explore the moderating role of Social Media Literacy (SML) on the predictors of Fake News Sharing Behavior (FNSB). With the widespread use of social media, the dissemination of fake news has had profound impacts on both society and individuals. By understanding how factors such as Information Sharing (ISR), Information Seeking (ISK), Trust in Social Networking Sites (TSNS), and Self-Expression (SE) influence Fake News Sharing Behavior (FNSB), we hope to identify effective methods to enhance public media literacy and reduce the negative impacts of fake news.

The questions in this questionnaire will help us understand the relationships between these factors and the role of Social Media Literacy (SML) in moderating them. Your responses are crucial to our research and will contribute to developing more effective educational and policy measures to address the issue of fake news dissemination. The questionnaire consists of 35 questions and takes about 15 minutes.

All responses will be kept strictly confidential and used solely for academic research. Thank you for your support and cooperation.



## **Demographic Information**

1. Gender

a. Female

b. Male

2. Age range

a. 18-19

b. 20-21

c. >22

3.If you always use social media

a. Yes

b. No

4.Social Media Platforms Used Regularly

a. WeChat

b. Weibo

c. TikTok/Douyin

d. Redbook

e. Zhihu

f. Bilibili

g. Other (please specify)

5.Educational level

a. Freshman

b. Sophomore

c. Junior

d. Senior

6. Average Time Spent on Social Media Per Day

a. Less than 4 hours

b. 4-8 hours

c. 8-12 hours

d. More than 12 hours

Please tick in provided column

1= Strongly disagree

2= Disagree

3= Neutral

4= Agree

5= Strongly agree



| Dimensions | Questions                                                                                  | 1 | 2 | 3 | 4 | 5 |
|------------|--------------------------------------------------------------------------------------------|---|---|---|---|---|
| ISR        | 1. I share information that others might find helpful.                                     |   |   |   |   |   |
|            | 2. I post on social media to receive input on my discoveries.                              |   |   |   |   |   |
|            | 3. I utilize social media to distribute information.                                       |   |   |   |   |   |
|            | 4. I use social media to impart practical information and skills to others.                |   |   |   |   |   |
|            | 5. I employ social media to effortlessly express myself through information dissemination. |   |   |   |   |   |

| Dimensions | Questions                                                                                           | 1 | 2 | 3 | 4 | 5 |
|------------|-----------------------------------------------------------------------------------------------------|---|---|---|---|---|
| ISK        | 6. I utilize social media to communicate information that can be interesting to others.             |   |   |   |   |   |
|            | 1. I utilize online technology to delve into subjects that pique my interest.                       |   |   |   |   |   |
|            | 2. I utilize online communication tools when seeking new knowledge.                                 |   |   |   |   |   |
|            | 3. I nternet technology aids in my success in university courses.                                   |   |   |   |   |   |
|            | 4. I enhance my learning by seeking information on topics of interest.                              |   |   |   |   |   |
| TSNS       | 5. I use online communication technology to stay updated on subjects within my area of expertise.   |   |   |   |   |   |
|            | 1. My social networking platform is a trustworthy social network.                                   |   |   |   |   |   |
|            | 2. I trust my social networking site to maintain the privacy of my information.                     |   |   |   |   |   |
|            | 3. I trust my social networking site to safeguard my personal information from unauthorized access. |   |   |   |   |   |
|            | 4. My social networking service can be trusted to fulfill its commitments.                          |   |   |   |   |   |
| SE         | 1. I use social media to showcase my personality.                                                   |   |   |   |   |   |
|            | 2. I share on social media to educate others about myself.                                          |   |   |   |   |   |
|            | 3. I post on social media because it reflects my true self.                                         |   |   |   |   |   |
|            | 4. I share on social media to project the image I desire to others.                                 |   |   |   |   |   |
| SML        | 1. I possess the knowledge to create and delete an account on social media.                         |   |   |   |   |   |
|            | 2. I am skilled in sharing content, such as images, on my social media profile.                     |   |   |   |   |   |
|            | 3. I understand how to eliminate undesirable content from my social media account.                  |   |   |   |   |   |
|            | 4. I am adept at managing conflicts on social media in an appropriate manner.                       |   |   |   |   |   |
|            | 5. I am informed about social media policies.                                                       |   |   |   |   |   |
|            | 6. I know how to verify the accuracy of content shared on social media.                             |   |   |   |   |   |
|            | 7. I am capable of utilizing various sources to verify information found on social media.           |   |   |   |   |   |
|            | 8. I am able to distinguish between true and false information on social media.                     |   |   |   |   |   |

| Dimensions | Questions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | 1 | 2 | 3 | 4 | 5 |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|---|---|---|---|
| FNSB       | <p>1. I have posted news on social media that seemed accurate when I shared it, but I later discovered it was false.</p> <p>2. I have posted news on social media that I suspected was false when I shared it.</p> <p>3. I have posted news on social media that was exaggerated, but I was unaware of the exaggeration at the time.</p> <p>4. I have shared news on social media that I knew was exaggerated when I shared it.</p> <p>5. I have shared news on social media without thoroughly questioning its content.</p> <p>6. I have shared news on social media without seeking confirmation from other sources.</p> <p>7. I have shared news on social media without reading the entire content from start to finish.</p> <p>8. I have shared news on social media that I believed might not be entirely truthful.</p> |   |   |   |   |   |



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## Appendix B

### Summary of the Findings of the Relationships Between the Variables

| Author(s)                  | Sample Method         | Dependent variable                           | Findings                                                                                          |
|----------------------------|-----------------------|----------------------------------------------|---------------------------------------------------------------------------------------------------|
| Talwar et al., 2020        | Mixed research        | Spread of false information                  | Confirming news before sharing has no effect on spreading false information.                      |
| Apuke & Omar, 2021a        | Quantitative research | Spread of false information                  | Sociability, ISK, ISR, and idleness predict misinformation spread.                                |
| Adnan et al., 2021         | Quantitative research | Spread of false information                  | Altruistic motivation is the main factor influencing the spread of false information.             |
| Sulaiman et al., 2020      | Quantitative research | Spread of false information                  | Positive correlation between the dissemination of fake news and information evaluation.           |
| Stefanone et al., 2019     | Quantitative research | Perception of sharing activity               | Sharing behavior was positively influenced by believability.                                      |
| Thompson et al., 2019      | Quantitative research | News sharing behavior                        | News sharing behavior is strongly influenced by ISR and status-seeking gratifications.            |
| Skarpa & Garoufallou, 2021 | Quantitative research | ISK                                          | Participants trusted official sources but were cautious about using social media for information. |
| Junaidi, 2020              | Quantitative research | Sharing and information-seeking activities   | Trust affects social capital, which influences information habits.                                |
| Sampat & Raj, 2022         | Quantitative research | Rumor (or fake news) spreading               | Identified strategies for rumor spreading and their payoffs.                                      |
| Hwang & Jeong, 2023        | Quantitative research | Exposure and acceptance of false information | Information avoidance predicted exposure to disinformation.                                       |

| <b>Author(s)</b>                  | <b>Sample Method</b>  | <b>Dependent variable</b>           | <b>Findings</b>                                                                                                   |
|-----------------------------------|-----------------------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Apuke & Omar, 2020                | Quantitative research | Spread of false information         | Tie strength is the most significant element in predicting the spread of false information.                       |
| Khan & Idris, 2019                | Quantitative research | Spread of false information         | Background on the Internet, information-seeking abilities, and attitude towards verification influence spreading. |
| Bauer & Clemm von Hohenberg, 2021 | Quantitative research | Belief and share news               | Source credibility influences the tendency to believe and share news.                                             |
| Cotter & Reisdorf, 2020           | Quantitative research | Vulnerability to false information  | Low digital literacy increases vulnerability to false information.                                                |
| Zhou et al., 2023                 | Mixed research        | User behavior                       | Social media affordances increase user autonomy and trigger cognitive-affective reactions.                        |
| Wei et al., 2023                  | Quantitative research | Fight against false information     | Strong SML skills essential in fighting fake news.                                                                |
| Syam & Nurrahmi, 2020             | Quantitative research | Critically analyze content          | Critical analysis and evaluation of content and source of messages on social media platforms.                     |
| Ohara, 2023                       | Quantitative research | Accountability in media messages    | Accountability in producing and sharing media messages online.                                                    |
| Reinikainen et al., 2020          | Qualitative research  | Behavior analysis                   | Analysis of behavior.                                                                                             |
| Sciannamea, 2020                  | Mixed research        | Impact on information dissemination | Impact on information dissemination.                                                                              |
| Phippen et al., 2021              | Quantitative research | Spotting false information          | Those who received training in digital media were better at spotting false information.                           |

| <b>Author(s)</b>             | <b>Sample Method</b>  | <b>Dependent variable</b>                           | <b>Findings</b>                                                                                     |
|------------------------------|-----------------------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| De Paor & Heravi, 2020       | Quantitative research | Fight against false information                     | Strong foundation in digital literacy required to fight against fake news.                          |
| Reem, 2022                   | Quantitative research | Recognize fake news                                 | Literacy principles improve ability to recognize fake news.                                         |
| Higdon, 2020                 | Quantitative research | Distinguish between real and fake news              | Digital literacy interventions help distinguish between real and fake news.                         |
| Lin et al., 2021             | Mixed research        | Social media behavior                               | Impact on social media behavior.                                                                    |
| Falloon, 2020                | Qualitative research  | Impact on false information                         | Technical and cognitive skills required for productive participation on social media platforms.     |
| Schmidt et al., 2021         | Quantitative research | Information behavior                                | Participants have modest trust in social media and frequently encounter erroneous material.         |
| Buchanan & Benson, 2019      | Quantitative research | Dissemination of potentially misleading information | Message source reliability affects the natural dissemination of potentially misleading information. |
| Turel & Osatuyi, 2021        | Quantitative research | Credibility bias                                    | Credibility bias exacerbates sharing bias.                                                          |
| Majerczak & Strzelecki, 2022 | Quantitative research | Sharing behavior and views                          | Credibility positively influences sharing behavior.                                                 |
| Gwebu et al., 2022           | Quantitative research | Spread of false information                         | Warnings reduce the intention to spread fake news.                                                  |
| Ali et al., 2022             | Quantitative research | Desire to share news                                | Emotion and attitude influence perceived credibility and desire to share news.                      |

| <b>Author(s)</b>      | <b>Sample Method</b>  | <b>Dependent variable</b>                 | <b>Findings</b>                                                                                                             |
|-----------------------|-----------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Thanh et al., 2021    | Quantitative research | Spread of false information               | Charity, amusement, sociability, self-promotion, and quick information exchange significantly impact misinformation spread. |
| Furukawa et al., 2021 | Qualitative research  | Detection of false news                   | Approach works well for identifying fake news on other domains.                                                             |
| Perach et al., 2023   | Qualitative research  | Motivations behind sharing misinformation | Different motivations may need to be targeted independently to counteract mis ISR.                                          |
| Kim et al., 2023      | Mixed research        | Social media behavior                     | Social motivation and privacy concerns influence the likelihood of sharing misinformation.                                  |



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