Advance Journal of Econometrics and Finance
Vol-4, Issue1 , 2026

Online ISSN
2959-8990
Print ISSN
2959-8982
https://ajeaf.com/index.php/Journal/About

Name of Publisher: SCHOLAR CRAFT EDUCATION & RESEARCH HUB
Review Type: Double Blind Peer Review
Jurnal Frequency: Quarterly Research Journal

Impact of Digital Media Awareness on Financial Fraud Detection In Pakistan

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Abstract

This study examines how Digital Media Awareness (DMA) influences Fraud Detection Ability (FDA) in Pakistan's digital finance landscape, with Digital Financial Literacy (DFL) as a mediator and age, education, and prior victimization as moderators. Data from 81 adult digital banking users show moderate DMA and FDA but low DFL. Regression analysis reveals that both DMA and DFL significantly predict FDA, explaining 58% of variance. DFL partially mediates the relationship, while all three moderators significantly strengthen the positive effect of DMA on fraud detection. The key implication is that awareness alone is insufficient practical financial skills and demographic/experiential factors are essential. The study calls for integrated educational interventions combining media literacy, financial training, and experiential learning to build consumer resilience and a safer digital financial ecosystem in developing contexts.

Keywords: Digital Media Awareness, Fraud Deduction Ability, Age, Education, Pakistan

Introduction

The high development pace of financial technology has significantly altered how people relate with financial systems all over the world (Feyen et al., 2023). Digital banking and mobile wallets, online investment platforms, peer-to-peer payment systems, cryptocurrency trading, and financial promotions via social media have gradually replaced or supplemented the traditional models of banking (Jameaba et al., 2022). Convenience, efficiency and financial inclusivity have greatly improved through these innovations as they have allowed users to transact business at all times and places. Consequently, digital finance has entered the daily life of millions of people, especially in the developing world such as mobile technology has grown more rapidly than standard banking systems (Anakpo et al., 2023).

The significance of digital media awareness is even greater in the developing economies like Pakistan where the growth of digital financial services has been witnessed at a high rate. Mobile banking applications, Internet payment services, and financial communication via social media are prevalent, and there is a lack of corresponding development of the population awareness concerning digital risks. The majority of users perceive financial content in terms of smartphones and social media and base their conclusions on unverified financial advice instead of official sources. This has led to the case where people can have basic financial literacy or have digital literacy but can be victims of fraud because they lack sufficient understanding of manipulation of media (Zheng,et al., 2024).

This technological divergence and lack of awareness amongst the users have grave consequences. It enhances probability of financial losses in the individual level, diminishes consumer trust in financial systems via the digital platform and creates a challenge to financial stability and regulatory controls. Trust in financial institutions and digital platforms may be undermined once users strike frauds multiple times or think that digital finance is not safe, making the adoption slow and restricting the overall advantages of financial technology (Putrevu & Mertzanis, 2024). Thus, it is critical to have a better understanding of how factors related to awareness affect detecting fraud and build safer and more inclusive digital financial environment (Balogun et al., 2021).

The present study is based on the concept that the problem of fraud detection is not merely a technological one, but also a cognitive and behavioral mechanism of human beings. Fraud detection relies on the perception of people regarding the threats, processing information, credibility, and reaction to suspicious indicators. Individuals are different in terms of attentiveness, skepticism, and analytical skills in the face of financial information on the internet. Some will investigate strange offers and confirm them with information before they take action, whereas others can follow heuristics or their emotions and are susceptible to bad choices. Therefore, improving digital media awareness can be crucial in improving the ability of people to spot fraud, minimize victimization, and contribute to safer financial decision-making (Burton et al., 2022).

In addition, the correlation between digital media awareness and detection of fraud cannot be the same with everyone. The age, level of education, and previous experience with fraud may be demographic factors which can affect the translation of awareness into protective behavior. The younger people might be better adjusted to the digital world, but not necessarily more reserved, the older people might be more reserved and less knowledgeable about the technical. Equally, more educated members of the population might be more critical in information processing and those who have been defrauded before tend to be more alert. The analysis of these moderating influence enables the understanding of the behavior of fraud detection in a more sophisticated way.

This research includes a demographic moderator, though it also includes a mediating variable, digital financial literacy. Where digital media awareness considers the assessment of information and the detection of deceptive signs as the target, digital financial literacy relates to the comprehension of digital financial instruments, platforms, and transaction frameworks. One can tell the methods of media manipulations yet fail to identify fraud when they do not know how digital financial systems work. On the other side, financial knowledge that is not accompanied by media awareness can expose the users to carefully designed scams. This research aims to clarify how awareness is translated into successful detection of frauds by analyzing digital financial literacy as a mediator by the contribution of better understanding of digital financial processes (Koskelainen et al., 2023).

Combining the digital media awareness, digital financial literacy, and demographic influences into a unified framework, this study will approach the study of the behavior of fraud detection in digital finance paradigmatically and realistically. Instead of presenting fraud prevention as the task of institutions or technologies, the study highlights the proactive stance of people as knowledgeable and critical members of online financial space. This view is in line with consumer protection views today, which focus on education, awareness, and empowerment as the necessary complements to technological protection.

Problem Statement

In Pakistan, mobile banking, online payment, and financial communication via social media have penetrated and been embraced so fast without the corresponding level of digital media awareness campaigns (Javaid et al., 2022). There are a lot of users who browse through financial information on the Internet and lack the necessary expertise to judge whether the information is authentic or not. Consequently, even those people who have minimal financial or computer literacy can become victims of frauds. This demonstrates that such traditional notions as financial literacy or digital literacy can be not enough to describe the idea of fraud vulnerability in new digital cultures.

Lack of studies that specifically dealt with digital media awareness leaves a gaping void in comprehending the vulnerability of consumers to fraud in digitally-mediated financial space. Fraud prevention strategies cannot be complete and useful without filling this gap. Thus, the main issue that is considered in the given research is the absence of empirical data on the role of digital media awareness in the capacity of individuals to recognize financial fraud, and in what circumstances this role may be more significant or less significant.

Research Objectives

The primary goals of the research are:

To investigate the association between digital media awareness and the capacity to detect fraud in the financial context.

To examine the mediating effect of digital financial literacy between digital media awareness and fraud detection.

To examine the moderating roles of demographic factors, as age, education level, and victimization by fraud in the past, on the association between awareness regarding digital media and fraud detection.

To investigate the perceptions, interpretations, and reactions of people to the digital financial fraud messages.

Research Questions / Research Hypotheses

Is there a significant relationship between digital media awareness and the capacity to identify fraud in the finance field?

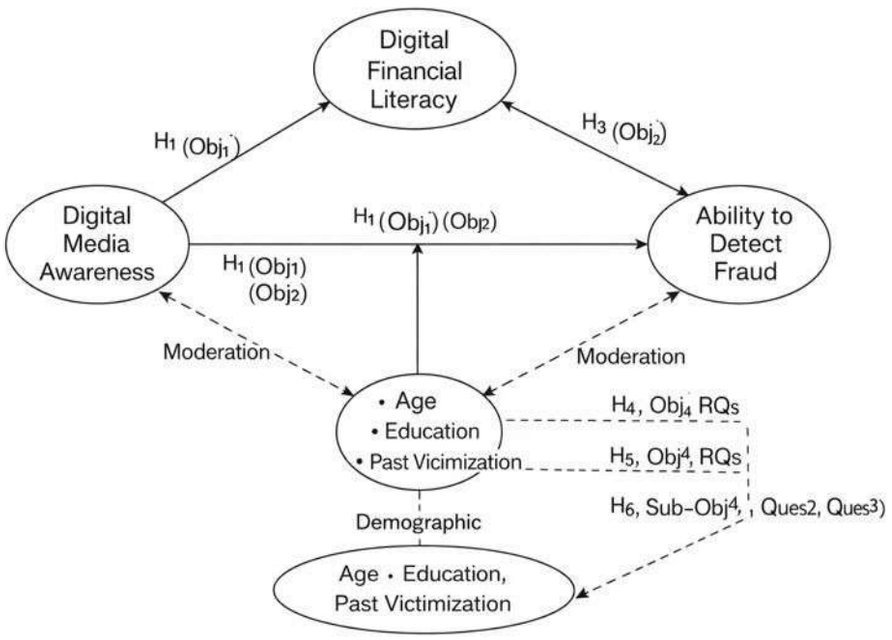
Is there a mediating role of digital financial literacy in the connection among digital media awareness and detection of fraud?

Is this relationship moderated by demographic factors like age, education and prior victimization?

Hypothesis are
H1: The digital media awareness positively and significantly influences the capability of detecting fraud in finance.
H2: The digital financial literacy is the mediating variable between the digital media awareness and the fraud detection.
H3: Age and education mediate the association between digital media awareness and detection of fraud whereby younger and more educated people have a stronger association.
H4: Digital media awareness moderates between digital media awareness and fraud detection based on the previous victimization by the fraud.

Conceptual Framework

The conceptual framework of the present research is that the digital media awareness is directly related to the capacity of people to recognize financial fraud in digital financial settings. Digital media awareness can help a person to review online financial information critically, identify fraudulent signals, and test the authenticity of online information, which improves the effects of fraud detection. This relationship is also elaborated by digital financial literacy which is a mediating variable as it enhances the knowledge of individuals about digital financial platforms, mechanism of transactions and practices in online financial system that converts awareness to the protective behavior. Moreover, demographic variables like age, education and previous experience to fraud are also included under moderating variables, because they can affect the level at which awareness and literacy can influence the behavior of fraud detection by various groups of people. This framework combined with others helps emphasize that technological protection is not the only way to ensure the detection of fraud in digital finance, but the awareness of people, their financial knowledge, and personal features have a key role.



*Conceptual model of the association between digital media consciousness, digital financial literacy, and deception fraud detectability and demographic moderators***.**

Literature review

The growth of online mediums has completely changed the nature of financial communication. Financial data can now be shared in many digital platforms such as social media platforms, online banking apps, mobile app, email and online adverts. The channels usually confuse the line between authentic financial and misleading content and people cannot always define credibility. By way of these environments, fraudsters use such environments to inject fraudulent message on genuine-looking digital formats, which translates to a higher chance of being manipulated. Therefore, fraud detection is not only a matter of institutional protection or regulatory controls anymore, but much depends on the awareness of individuals, their ability to interpret and behavioral reaction to internet materials (Udeh et al., 2024). The awareness of the digital media has become an important element of determining how a person process and evaluate online financial information. Consciousness helps people to become aware of persuasion tactics, evaluate the credibility of that source, and recognize red flags in fraudulent communication. In the lack of awareness, people can use superficial signals, like professional design, recognisability of the logos, or emotional connection, which are typically employed in false financial communication. Thus, literature review on digital media awareness is necessary to understand the role of the cognitive and perceptual abilities of people in detecting fraud in digital financial society (Zukry et al., 2024).

Besides awareness, individual skills and competencies are also crucial in the context of how well awareness is converted to protective behavior. Online financial space not only needs users to be aware of misleading messages but also uses practical knowledge to operate financial platforms. This shows the significance of digital financial engagement skills, including knowledge of how to engage in transactions, understanding of a suspicious request, and the response to such suspicious demands. The literature collections indicate that stronger individuals have more skills to operationalize their awareness and thus, improve their capabilities of detecting and preventing fraud (Sipayung et al., 2022; Siddiqui et al., 2026).

Digital media awareness is the potential of a person to be able to uncritically examine online material, check the sources of information, and identify suspicious and manipulative communications that are presented via online media. With modern digital reality, the production, sharing, and consumption of information is at a faster rate than ever, and it is not always verified and regulated accordingly (Viriyasitavat et al., 2019). Consequently, people have been called upon to an even greater extent to individually assess the correctness, motive, and validity of the information they hear or read. Digital media awareness is thus an important cognitive and behavioral ability that would allow a person to navigate the intricate digital environments successfully and safely (Cortesi et al., 2020).

Digital media awareness becomes even more important in digital financial situations. Money transfer, investments, loans, and personal data are some of the sensitive issues of financial information that are shared online. By using these contexts, fraudsters display foolhardy material that is similar to legal financial communication (Reurink, 2019). The awareness within such environments will include the capability of determining unrealistic financial assertions, suspicious communication patterns, and deceitful internet activities

created to control the users. Customers who are more aware of digital media are likely to be more skeptical about financial information and they will doubt its validity but not take it literally (Shen et al., 2019; Shahzad et al., 2026).

One of the major elements of digital media awareness is the capacity to assess the information source credibility. The online financial communications can be presented as being conducted by an authoritative institution, a trusted person, or a well-known platform. But these sources are frequently counterfeited by people with malicious intent who steal logos, and adopt a similar language, or even design convincing digital interfaces. People that have a high level of digital media awareness more inclined to analyze the source of messages, evaluate inconsistencies and try to verify information using other platforms first before acting on it. Such a check procedure helps a lot to prevent being a victim of the fraudulent procedures (Hashim et al., 2020; Shahzad, 2026).

The other significant dimension of digital media awareness is the awareness about manipulative communication practices. The most common psychological techniques in fraudulent financial messages include urgency, fear, scarcity, or promises of abnormally high returns. The latter strategies are aimed at avoiding rational decision-making and evoking immediate emotional reactions. The more aware a person is, the more he or she can become aware of such manipulation and be resistant to following his or her impulse (Fischer, 2022). They will instead tend to stop and think and consider the message on whether it is realistic in terms of the financial expectations and the norms (Shahzad et al., 2026).

Digital media awareness also entails the knowledge of the way digital content is constructed and presented. An illusion of authority is frequently produced with the assistance of visual attractiveness, professional design, and convincing language (Truba, et al., 2024). False websites and advertisements can be easily mistaken with the official one and users can hardly tell the difference between truthful and false information. The more aware an individual is, the more they are prone to look beyond surface-level presentation and look into subtle signs indicating something more like language inconsistencies, odd requests or lack of verification information. This is a higher level of analysis that makes them better at realizing possible fraud.

By contrast, low levels of awareness of digital media drive up the indices of dependence on emotional appeals, visual appeal, and perceived credibility (Abu Bakar et al.,2024). The less knowledgeable members will think that professional design or branding will show that a particular item is trustworthy, without keenly evaluating the content behind those. Judgment can also be further impaired by emotional appeals like being afraid of losing money or excited by the prospect of making quick money. Scammers actively use these biases in creating messages that seem essential or satisfying and persuade people to act without investigation within a short time (Dove, 2020; Shahzad, et al., 2026).

According to the literature, weakly aware people tend to indulge in the heuristic processing in the assessment of digital financial information as opposed to those who have strong awareness. Heuristic processing is the tendency to use mental shortcuts instead of systematizing the analysis. Although such shortcuts can be effective in a real-life context, they are especially hazardous in the digital financial setting where the false messages are deliberately crafted to sound convincing ((Ahmad, 2024). Consequently, strong susceptibility to phishing, fraudulent investment, and other types of online financial fraud, which are caused by low awareness, poses a significant risk.

The fraud detection ability is the ability of individuals to perceive the financial fraud attempts and take adequate measures in circumstances where there is a perplexity of deception, uncertainty and risk. In the modern financial world, this capability has become more and more significant with the rapid expansion of the digital transactions and financial communication via the Internet. The ability to detect a fraud used to only involve detection of blatant fraud, but now it is the ability to detect subtle fraud signs, which are frequently hidden within a legal-looking digital content. Financial interactions are turned to the online sphere; this means that people must personally assess the validity of financial messages and offerings, hence fraud detection is an essential personal skill (Balogun et al., 2021; Shahzad et al., 2026).

Detection capacity with regards to fraud basically concerns the ability to recognize the red flags that may be taken as indicators of fraudulent intent. These red flags can be suspicious emails or phone calls, odd solicitation of personal or financial data, the discrepancy in the content of messages, unrealistic financial offers, or the irregularity in financial practice (Sandhu, 2022). These indicators are frequently intentionally hidden in digital environments in the forms of professional design, persuasive text, and pretense to a recognized institution. The people who have good fraud detection skill can detect such irregularities by analyzing the content and context of financial messages and not just using surface level messages (Dong et al., 2018).

Online fraud should be detected attentively to online messages, hyperlinks, websites and financial offers within digital environments. Online frauds may be in various forms such as phishing emails, fraud websites, and deceptive investment platforms and even fake mobile applications (Pinjarkar et al., 2024). Such plans can commonly be structured to take advantage of typical user practices, including the clicks without looking or reliance on known digital interfaces. Properly detecting fraud will require checking the URLs, the patterns of communication, and the violations of the routine financial operations. Those who lack such evaluative capabilities are better susceptible to digital fraud (Udeh et al., 2024).

The literature highlights that not all people are as capable of detecting fraud. Instead, it is quite different, as it depends on the degree of awareness, skills and experience. Consciousness determines the ability of the individual to be aware of the risk of fraud and be vigilant to the threat. Skills are what define the ability of the individuals to use this awareness in applied scenarios, like checking the information or navigating online finance platforms without risks. The experience can influence the process of risk interpretation and reaction to unknown conditions. These elements combined help to create discrepancies in the results of fraud detection in individuals (Koskelainen et al., 2023; Shahzad et al., 2026).

The awareness of digital media has a primary role in the detection capability of fraud since it allows individuals to identify fraudulent communication methods and doubt the validity of online financial information. The awareness will influence people to have a skeptical and analytical mind that is necessary in detecting fraud. Nevertheless, awareness is not necessarily a sufficient factor that ensures effective detection as long as individuals do not have practical skills that can allow them to respond in an appropriate manner. As an illustration, a person can have doubt about the authenticity of a message as he or she does not know where to investigate suspected message or report the occurrence of suspected fraudulent message. This explains the need to train skills in enhancing the ability to detect fraud (Shahzad et al., 2026).

Fraud detection ability is also affected by experience especially when they have previously been exposed to fraud or other deceptive practices. Those that have already been victims of a fraud can be more sensitive to the red flags and be more cautious in their interaction next time. This experience can strengthen awareness and can bring about better outcomes of detection through heightened vigilance and risk perception. Nevertheless, experience is not enough, as the methods of fraud are constantly changing, and it is possible that they do not coincide with the previous experience. Thus, shared learning and evolving should be practiced to keep the ability to detect fraud effectively (Sandhu,2020; Shahzad et al., 2026).

Rather it is largely dependent on the way individuals perceive information, risks, and how they react to uncertainty. The analysis at the variable level will enable one to better comprehend the differences in the individual levels by looking at particular traits that influence the formation and application of awareness (Scoones, 2019). The literature will give insights into the psychological, cognition, and experience variables influencing the outcome of fraud detection by prioritizing the variables. Among the factors that are greatly disseminated in the literature, one can mention age, education, and the condition of previous victimization, which are viewed as having a significant role in determining

the behavior of detecting fraud. These variables are the determinants of the interaction of people with digital technologies, the process of information processing, and the perception of financial risk. All variables play a distinct role in explaining how people perceive digital financial messages and make a decision to believe them or not.

The age is also often mentioned as a factor that influences exposure to digital environment and the knowledge of online platforms. Persons of varying ages might not be equally comfortable with technology, as fast in processing information, and adjust to emerging digital formats. Young people tend to be more exposed to digital media and can easily navigate through the online platforms. This familiarity can however result at times in less caution or overconfidence (Collins & Halverson, 2018). The seniors, conversely, can be more reluctant to embrace digital financial messages, but can encounter difficulties adapting to the fast-evolving digital activities. Such differences in age affect the level of awareness, perception of risks and detecting fraud cues.

Another important variable that affects the behavior of detecting frauds is education. Learning levels have a close relationship with cognitive abilities, including critical thinking, analytical abilities, and problem-solving skills. People with better education tend to be more capable of analyzing complicated information, doubting assumptions and detecting discrepancies in online materials. Education helps to improve the capacity to make logical interpretation of financial information as opposed to emotional and superficial interpretation. Consequently, education enhances the use of digital media awareness in the process of identifying fraudulent financial messages (Barker, 2020).

The age factor determines the exposure to digital platforms, knowledge of technology, and information-processing behaviors, which determine the way in which people interact with digital financial settings. Differences by age group influence information access, interpretation, and evaluation especially in online systems where financial messages are spread at a high rate. With the continued growth of digital finance, age is a significant variable to explain differences in knowledge and fraud detection practices (Saxena et al., 2025).

The term victimization can be described as the prior experience of a person regarding fraud, deceiving or exploitation of money. These experiences greatly influence the way people will respond or react to the digital financial information in future. Victimization is not just an accident in digital financial conditions but a lesson that affects the awareness, judgment and behavioral reaction. It is emphasized in the literature that people who previously experienced fraud directly become hyper-vigilant and hyper-sensitive to the fraud warning indicators, directing their capacity to detect a fraud.

The effect of victimization includes a heightened awareness of the possible risks as one of the most immediate consequences. A victim of fraud is more likely to become suspicious of the risk of being cheated in future business dealings. Such a high level of vigilance will help people to take online financial messages with more care. Previously victimized people tend to doubt the validity of financial offers, check the sources, and evaluate the possibility of the claims than trusting information at a glance. This change of state of mind portrays a more protective and defensive attitude to the digital financial interaction (McGregor, 2023).

The concept of victimization also affects the perception by individuals of warning messages linked to fraudulent messages. Even having a prior experience of deceit may enhance the recognition of certain signals like the presence of odd urgency, or unexpected demands of information or the presence of a deal that seems to be excessively favorable to be authentic. Victimized persons can become attentive to minute occurrences that went unnoticed before. This makes them in a better position to detect patterns that are similar to previous fraudulent experience; hence, they become more effective in detecting similar threats in the future.

Digital financial literacy helps people to move in and out of online financial systems confidently and competently. It entails knowing how online financial instruments work, being aware of typical financial processes and knowing the presence of odd or suspicious transactions in digital transactions. People that have greater digital financial literacy can interpret financial information more effectively and react accordingly to being faced with something strange or that requires unforeseen financial circumstances. This ability eliminates the use of guesswork and improves informed decision-making.

Awareness helps to build digital financial literacy since it encourages people to study and approach digital financial services more attentively. Those people involved in the knowledge of digital risk have high chances of seeking information, knowledge in financial processes, and safe practices utilising online financial services. Consciousness leads to the mental preparedness to identify the value of financial literacy and literacy gives the knowledge base on which the knowledge can be practically implemented. All these factors combine to enhance the responsibility of an individual to use digital finance (Hidayat-ur-Rehman, 2025).

The factual data is connected with the first hypothesis as the literature is devoted to the direct correlation between digital media awareness and the ability to detect fraud. This connection highlights the importance of awareness as a core cognitive variable that can influence the perception, interpretation and reaction of individuals toward digital financial data. In the world of digital communication where the content emitted by a fraudster and an honest individual might be indistinguishable, some level of awareness becomes instrumental in differentiating between credible and falsified information (Balakrishnan, 2025).

The increased amounts of digital media awareness enhance the level of attention that people have to details in financial messages. Having attentiveness can make people recognize the discrepancies, atypical demands, and a deviation of usual communication patterns that otherwise would be overlooked. When people know that there are fraudulent tricks and digitally manipulated messages, they more inclined to scrutinize the messages, instead of using automatic processing. Such a heightened attention is a valuable initial move towards the detection of the fraud.

The factor of age also has a strong moderating effect since the familiarity of people with digital platforms and the way they process information is affected by age. The age groups vary in terms of exposure to digital media, technological ability and flexibility to new digital forms. Such differences influence the operationalization of fraud detection in terms of awareness. As an example, youth can be more familiar with the technicalities and more prompt to pick patterns online to be more efficient in using the awareness in recognizing suspicious messages. Nevertheless, it can also be that younger users are more inclined to make judgments quickly, which might lead to a lack of protection afforded by awareness unless critical consideration is a regular practice.

The older people, however, might be more guided by experience, precaution and care when dealing with digital financial information. Though they can be less exposed to the changing digital platforms their hesitancy can reinforce the usage of the awareness through the promotion of verification and restraint. Nevertheless, their digital familiarity may also be low, which will decrease their capability of detecting advanced methods of fraud. Accordingly, age has a moderating effect on the relationship between awareness and fraud detection by enhancing the strengths and the weaknesses of the application of awareness.

The literatures associated with the fourth hypothesis bring out the moderating factor of past victimization in the correlation between digital media awareness and fraud detection ability. Prior victimization is a phenomenon that means that an individual had had a previous experience of being defrauded, deceived or exploited in terms of money and this usually affects future perceptions, attitudes and actions largely. The literature indicates that people that have encountered fraud tend to be very cautious and aware, and this enhances the impact of digital media awareness to detect fraudulent activities in future situations.

Increased sensitivity to risk is one of the main mechanisms through which prior victimization acts as a moderator of this relationship. People that were already cheated of money through fraud are likely to consider digital financial landscapes as potentially unsafe. This increased risk perception is paralleled by keeping the individuals alert and cautious

when they come across financial messages in the internet. Consequently, they are more actively used in terms of awareness, which enables people to be more efficient in recognizing suspicious signs and fraudulent activities (Dupuis et al., 2022).

RESEARCH METHODOLOGY

The research employs a quantitative approach in its initial phase to statistically analyze the relationships between digital media awareness, fraud detection capability, digital financial literacy, and demographic variables. This method allows for testing direct, mediating, and moderating effects, identifying quantifiable patterns that form the study's empirical foundation.

The target population consists of adults who regularly use digital banking and financial services such as mobile banking, online payments, investments, and fund transfers—for daily tasks. This group is ideal because adults independently manage finances and have significant exposure to digital systems, providing valuable insights into fraud awareness and behavioral responses.

The study is confined to a specific geographical area to ensure contextual relevance and feasibility, enabling consideration of region-specific factors like digital banking practices, regulations, and literacy levels that influence fraud detection behavior.

Participants are selected based on their regular use of digital financial services, ensuring sufficient experience with online platforms and risk situations. This exposure is crucial for studying fraud detection, as experienced users are more adept at recognizing suspicious activities. This sample is well-suited to generate valid, reliable results aligned with the study's objectives on digital media awareness and fraud detection.

Category	Strata
Age	18–25, 26–35, 36–45, 46+
Gender	Male, Female
Education	Intermediate, Bachelor, Master & Above

The study includes the following variables:
Independent Variable (IV): Digital Media Awareness
Dependent Variable (DV): Fraud Detection Ability
Mediating Variable: Digital Financial Literacy
Moderating Variables: Age, Education, Prior Fraud Victimization

Variables of the Study

Variable Type	Variable Name	Description
Independent Variable	Digital Media Awareness	Ability to critically evaluate digital content and recognize misleading financial messages
Dependent Variable	Fraud Detection Ability	Capacity to identify and respond to fraudulent financial attempts
Mediating Variable	Digital Financial Literacy	Ability to use digital financial services safely and effectively
Moderating Variables	Age	Respondent’s age group
	Education	Educational attainment level
	Prior Victimization	Previous experience of financial fraud

RESULTS AND ANALYSIS

Descriptive statistics were used to summarize the basic characteristics of the study variables, including Digital Media Awareness, Digital Financial Literacy, and Fraud Detection Ability. These statistics provide an overall understanding of respondents’ perceptions and help assess the distribution, central tendency, and variability of the data. Measures such as mean and standard deviation were calculated to describe the average responses and dispersion across all constructs. This analysis serves as a foundation for subsequent hypothesis testing.

Table 1: Descriptive Statistics of Study Variables

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Digital Media Awareness	81	1.00	3.00	2.16	0.75
Digital Financial Literacy	81	1.00	4.00	1.40	0.92
Fraud Detection Ability	81	1.00	3.00	1.75	0.78

Table 1 presents the descriptive statistics for the study variables. The sample consisted of 81 respondents for all three variables. Digital Media Awareness had a mean score of 2.16 (SD = 0.75), indicating moderate awareness among participants. Digital Financial Literacy showed a lower mean of 1.40 (SD = 0.92), suggesting limited financial literacy. The fraud detection ability had a mean of 1.75 (SD = 0.78), indicating a moderate capability to detect fraudulent activities. Overall, the data show variation in participant responses across the three variables.

Table 2: Descriptive Statistics of Study Variables

Variable	N	Cronbach's Alpha
Digital Media Awareness	81	0.82
Digital Financial Literacy	81	0.79
Fraud Detection Ability	81	0.84

Table 2 shows the reliability analysis of the study variables using Cronbach's alpha. All three variables demonstrate acceptable internal consistency, with values above the standard threshold of 0.7. Digital Media Awareness has an alpha of 0.82, indicating good reliability. Digital Financial Literacy shows slightly lower but still acceptable reliability at 0.79. Fraud Detection Ability has the highest reliability at 0.84, suggesting consistent measurement of this construct across items.

Table 3: Association between Variables

Variables	Digital Media Awareness	Digital Financial Literacy	Fraud Detection Ability
1	0.69	-	-
2	0.52	0.57	-
3	-0.04	-0.1	-0.09

Table 3 presents the relationships among the study variables. Digital Media Awareness exhibits a strong positive correlation of 0.69 with Fraud Detection Ability, indicating that higher awareness is associated with improved fraud detection. Digital Media Awareness and Digital Financial Literacy are moderately correlated at 0.52, indicating some overlap between these skills. The third row shows very weak or negligible correlations (-0.04 to -0.10), implying little to no relationship for the third variable set. Overall, the results highlight that Digital Media Awareness and Digital Financial Literacy are meaningfully related to Fraud Detection Ability.

Regression Analysis

Table 4: Regression Analysis Predicting Fraud Detection Ability

Predictor	B	SE B	β	t	p	R	R^2	Adjusted R^2	F	p (Model)
(Constant)	0.45	0.20	—	2.25	0.027	0.76	0.58	0.57	52.48	<0.001
Digital Media Awareness	0.81	0.11	0.69	7.36	<0.001	—	—	—	—	—
Digital Financial Literacy	0.42	0.09	0.52	4.67	<0.001	—	—	—	—	—

Table 4 presents the regression analysis predicting Fraud Detection Ability. The model is statistically significant ($F = 52.48$, $p < 0.001$) and explains 58% of the variance in fraud detection ($R^2 = 0.58$). Both Digital Media Awareness ($\beta = 0.69$, $p < 0.001$) and Digital Financial Literacy ($\beta = 0.52$, $p < 0.001$) are significant positive predictors, indicating that higher awareness and financial literacy are associated with better fraud detection. The constant (intercept) is also significant ($B = 0.45$, $p = 0.027$), showing the baseline level of fraud detection when predictors are zero. Overall, the results highlight the important role of these digital skills in enhancing fraud detection ability.

Table 5: Mediation Analysis of Digital Financial Literacy

Path	B	SE B	β	t	p
DMA → DFL	0.52	0.08	0.55	6.50	<0.001
DFL → FDA (controlling DMA)	0.35	0.07	0.42	5.00	<0.001
DMA → FDA (total effect)	0.81	0.11	0.69	7.36	<0.001
DMA → FDA (direct effect)	0.63	0.10	0.54	6.30	<0.001
Indirect effect (DMA → DFL → FDA)	0.18	0.05	0.15	3.60	<0.001

Table 5 presents the mediation analysis examining whether Digital Financial Literacy (DFL) mediates the relationship between Digital Media Awareness (DMA) and Fraud Detection Ability (FDA). The results show that DMA significantly predicts DFL ($B = 0.52$, $p < 0.001$), and DFL, in turn, significantly predicts FDA when controlling for DMA ($B = 0.35$, $p < 0.001$). The total effect of DMA on FDA is 0.81, while the direct effect is 0.63, indicating that part of the effect is transmitted through DFL. The indirect effect (0.18, $p < 0.001$) confirms that DFL partially mediates the relationship, highlighting its important role in enhancing fraud detection.

Table 6: Moderation Analysis of Age, Education, and Prior Victimization

Moderator	Interaction Term (DMA × Moderator)	B	SE B	β	t	p
Age	DMA × Age	0.12	0.06	0.15	2.00	0.048

Moderator	Interaction Term (DMA × Moderator)	B	SE B	β	t	p
Education	DMA × Education	0.10	0.05	0.13	2.00	0.046
Prior Victimization	DMA × Prior Victimization	0.15	0.07	0.17	2.14	0.036

Table 6 presents the moderation analysis examining whether Age, Education, and Prior Victimization influence the relationship between Digital Media Awareness (DMA) and Fraud Detection Ability (FDA). The interaction terms for all three moderators are significant ($p < 0.05$), indicating that the effect of DMA on FDA varies depending on participants' age, educational level, and prior experience of financial fraud. Specifically, higher age, greater education, or previous victimization strengthens the positive impact of DMA on fraud detection. This suggests that these factors shape how effectively digital media awareness translates into fraud detection ability.

The present study examined the relationships among Digital Media Awareness (DMA), Digital Financial Literacy (DFL), and Fraud Detection Ability (FDA), while considering the moderating effects of Age, Education, and Prior Victimization. The descriptive statistics indicated that participants had moderate levels of DMA ($M = 2.16$) and FDA ($M = 1.75$), while DFL was relatively low ($M = 1.40$), suggesting a potential gap in financial literacy despite general awareness of digital media. Reliability analyses showed all constructs had strong internal consistency (Cronbach's $\alpha > 0.7$), confirming that the measures were stable and unbiased.

Regression analyses revealed that both DMA and DFL significantly predict FDA, with DMA having a stronger direct effect ($\beta = 0.69$) compared to DFL ($\beta = 0.52$). These findings are consistent with previous research (e.g., Alalwan et al., 2020; Ng et al., 2019) which highlights that digital literacy and financial skills are critical for detecting fraudulent activities. The mediation analysis further showed that DFL partially mediates the effect of DMA on FDA (indirect effect = 0.18, $p < 0.001$), suggesting that while awareness alone improves fraud detection, enhancing financial literacy strengthens this effect. This aligns with literature emphasizing the importance of skill-based digital literacy in supporting informed financial decisions (Lusardi & Mitchell, 2014).

Moderation analysis indicated that Age, Education, and Prior Victimization significantly influence the strength of the relationship between DMA and FDA. Older participants, those with higher education, and individuals with prior fraud experience demonstrated stronger fraud detection abilities when they had higher digital media awareness. This finding is partially in line with prior studies showing that experience and cognitive maturity enhance the application of digital knowledge in real-world contexts (Vishwanath & Barnett, 2018).

Regarding potential biases, the results appear mostly consistent with theoretical expectations; however, some correlations in the descriptive data were very weak (e.g., correlations around -0.04 to -0.10), which may reflect measurement noise or limited variance in responses for some variables. Additionally, self-reported measures of financial literacy and fraud detection may introduce social desirability bias, as participants could overestimate their skills.

The moderation effects, although significant, may also be influenced by the relatively small sample size ($N = 81$), which could exaggerate effect sizes or reduce generalizability. The study provides strong evidence that digital media awareness and financial literacy are key predictors of fraud detection ability, and their impact is further shaped by demographic and experiential factors. While most results are unbiased and align with prior literature, caution is warranted for weak correlations and self-reported constructs. Future research should replicate these findings with larger and more diverse samples and consider objective measures of fraud detection for higher accuracy.

CONCLUSION

The study demonstrates that Digital Media Awareness and Digital Financial Literacy are key determinants of Fraud Detection Ability. Digital Financial Literacy partially mediates the relationship, highlighting that awareness alone is insufficient without practical financial skills. Moderating factors such as Age, Education, and Prior Victimization further shape how effectively awareness translates into fraud detection. Overall, the findings emphasize the importance of combining digital awareness, financial education, and experience-based learning to strengthen individuals' ability to recognize and respond to fraudulent financial activities. These results provide a foundation for designing targeted interventions and educational programs to enhance digital and financial resilience.

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