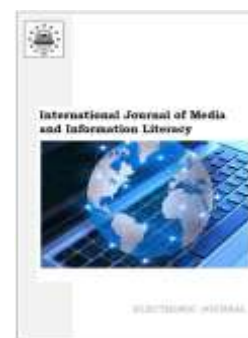


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Published in the USA
 International Journal of Media and Information Literacy
 Issued since 2016.
 E-ISSN: 2500-106X
 2025. 10(1): 75-90

DOI: 10.13187/ijmil.2025.1.75
<https://ijmil.cherkasgu.press>



The Influence of Social Media Literacy and Challenges on Youth Small Medium Entrepreneurs in Sindh, Pakistan

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Abstract

In today's digital landscape, social media literacy faces multiple challenges that impact Youth businesses, and society. The study focuses on comprehensively understanding the influence of social media literacy and the challenges on the young entrepreneurs' performance in Sindh, Pakistan. Also, how social media literacy and challenges impact on their business growth and customer engagement. 357 purposive samples were collected from January 1st, 2024, to February 28th, 2024. A survey technique was employed on young entrepreneurs, who manage online businesses sale various products in Sindh, Pakistan. Data was analyzed using partial least squares, and structure equation modeling (PLS-SEM). The findings revealed a significant positive impact ($p < 0.05$) of social media challenges; such as lack of management, cyber-security, lack of policies and regulations, culture and language barriers, and digital infrastructure on young entrepreneur's performance. It has been concluded that most young entrepreneurs encounter social media challenges because they have social media literacy about the uses of social media in their domain. Hence, this paper assesses the importance of social media literacy to overcome business challenges. The study offers the implementation of policies and regulations to policymakers, decision-makers, government programs, social media users, and online entrepreneurs. The study recommends employing qualitative research methods to uncover realities and challenges in the country and other states.

Keywords: Social Media's challenges, Entrepreneur's social media Literacy, Entrepreneur's Performance, Small Medium Entrepreneur's (SMEs).

1. Introduction

In today's digital age, social media literacy is referring to the ability to critically access, evaluate, and create content on social media platforms (Kaur et al., 2022). Particularly, social media literacy has transformed the way business operate and significantly enhances an entrepreneur's ability to implement strategic marketing campaigns, engage with customers, and improve sales performance (Tajudeen et al., 2018). Young entrepreneurs can actively develop social media skills, and increase their business success rate by over 50 % compared to those who do not leverage digital tools effectively (Kaur et al., 2022). Furthermore, social media usage has increased tremendously and plays a crucial role in business development in the developing countries (Chokpitakul, Anantachart, 2020; Kunsman, 2018). Moreover, young entrepreneurs widely use social media platforms to keep updating business information (Muhamad et al., 2009; Schjoedt et al., 2020; Shi et al., 2024).

In a business context, social media are considered as dynamic, interconnected, egalitarian, and interactive organisms (Peters et al., 2013), with their distinctive applications on which people build networks and share information or sentiments (Kaplan, Haenlein 2010). Social media

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literacy enables firms and customers to connect in ways that were not possible in the past. Such connectedness is empowered by various platforms, such as Facebook, Twitter, YouTube, Instagram, and LinkedIn that allow entrepreneurs to build social networks, and share interests and values in the global world' (Alalwan, 2021; Shaikh, Jamilah., 2024; Song et al., 2022). Young entrepreneurs use social media for quick customer communication and easy connections (Kusumawardhany, Dwiarta, 2020; Nawi et al., 2019; Von Arnim, Mrozewski, 2020).

After COVID-19, developing countries are forcing entrepreneurs to build skills of using social media platforms at the global level. In light of the ever-changing business landscape, heightened business competition, consumer preferences, and the transforming of social media platforms suggest as key factors of entrepreneurship performance, and developing countries' economies (Alraja et al., 2020; Eze et al., 2021; Qalati et al., 2022).

Alraja et al. (Alraja et al., 2020) suggested that entrepreneurs should use social media in developing countries because of ease of use, easy demographic consumer targeting, and low expenditure. In the United Arab Emirates, social media is the most popular means of communication for entrepreneurs, as it enhances interaction between firms and customer relationships, enables interpersonal communication, positive feedback to customers, and content management (Ahmad et al., 2019). Presently, entrepreneurs have the chance to grow business and customer connections through social media platforms (Hofacker, Belanche, 2016).

Social media literacy expansion and its foundation in information communication technology are seen as both a huge opportunity and a threat to businesses (Hofacker, Belanche, 2016). Moreover, some entrepreneurs face challenges while using social media because of a lack of management, training, resources, and engagement with them (Qalati et al., 2022). Thus, researchers assumed that the potential benefits and challenges of social media literacy among entrepreneurs have been little explored in the present review of the literature (El-Gohary et al., 2023, Qalati et al. 2022). Notably, Alraja et al., Fang et al. and Qalati et al. (Alraja et al., 2020; Fang et al., 2021; Qalati et al., 2022) have called for studies in the context of online Small and Medium enterprises operating in Saudi Arabia, Oman, and Pakistan.

Besides this, Faridi, Malik; Shaikh, Jamilah; Munawar et al.; Oppong et al. (Faridi, Malik, 2020; Munawar et al., 2023; Oppong et al., 2020; Shaikh, Jamilah, 2024) found a gap. The study focuses on comprehensively understanding the social media literacy, and obstacles on the young entrepreneur's performance in Sindh, Pakistan. Also, how these challenges influence their business growth and customer engagements.

Hence, the Technology acceptance model has been employed to understand how youngsters face social media challenges in spite of having social media literacy, which could contribute to boosting e-commerce performance in Sindh Pakistan. The remaining sections of the study consist of a theoretical framework, literature review, research methodology, and results. Last but not least discussion, conclusion, practical contribution, and limitation of research have been provided at the end of the study. The outcome of the study would be significant in ongoing Government programs, like the Small and Medium Enterprises Development Authority (SMEDA), Public Sector Development Programme (PSDP), National Vocational & Technical Training Commission (NAVTTAC) National Business Development Programmes.

Theoretical Conceptual Framework and Hypothesis: Social media literacy serve as powerful tools for businesses to reach broader audiences, enhance communication, and drive innovation. However, social media challenges; such as lack of management, lack of policy and regulations, language barrier, digital infrastructure, and cybersecurity risks could impact business performance, requiring companies to adapt their digital strategies for sustained success. Entrepreneurial Ability (EA), Management Challenge (CLM), and Entrepreneur's Performance (EP): Entrepreneurial Ability (EA) is a learning process that involves acquiring social media literacy entrepreneurial skills, attitudes, and education (Holden, Rada, 2011). It is reflected in the entrepreneur's activities to develop and facilitate skills (Ndofirepi, 2020). Some scholars (Leeflang et al., 2014; Oppong et al., 2020; El-Gohary et al., 2023) identified multiple managerial issues in using social media, such as a lack of a managerial approach, absence of strategy, poor internet speed, and time management challenges. Similarly, entrepreneurs face other management issues, including a lack of experienced technological experts, time-consuming tasks, high investment costs, and insufficient managerial approaches and strategies to handle social media problems (Cawsey, Rowley, 2016; Faudzi et al., 2024; Leeflang et al., 2014). Moreover, social media challenges, such as the lack of experienced communication experts and effective management, have an insignificant influence on business growth (Venkatesh, Davis, 2000).

Entrepreneurial abilities; like leadership, decision-making, and problem-solving are essential for managing challenges, including those related to social media. These skills help entrepreneurs navigate digital landscapes, address management issues, and improve performance (Baron, 2004; Brockhaus, 1980; McClelland, 1961). However, poor social media management, including inadequate planning and knowledge gaps, is a key challenge for entrepreneurs, leading to missed opportunities and reduced performance (Kaplan, Haenlein, 2010; Yusuf, 1995).

Better entrepreneurial performance depends on effectively managing resources and challenges. Strong entrepreneurial abilities are associated with better outcomes, and in the digital age, managing social media challenges is crucial for success (Delmar, Shane, 2003; Feng, 2014).

H1: Entrepreneurial ability (EA) reduces the lack of management (CLM) related to social media usage, which in turn positively impacts entrepreneurial performance (EP).

H1: $EA \rightarrow CLM \rightarrow EP$

Entrepreneurial ability (EA), Lack of Policy and Regulation Challenges (CP), and Entrepreneur's Performance (EP): Strong entrepreneurial abilities improve decision-making and problem-solving, enabling entrepreneurs to navigate regulatory and policy challenges effectively (Baron, 2004; McClelland, 1961). While the unclear policies are an obstacle (Stiglitz, 1993). Whereas, entrepreneurs with higher abilities can better adapt, leading to improved business outcomes and sustainability (Delmar, Shane, 2003; North, 1990; Stiglitz, 1993). However, Martin-Rojas et al. (Martin-Rojas et al. 2023) confirm that social media use positively mediates entrepreneurial proficiency and performance.

H2: Entrepreneurial ability (EA) has a significant impact on overcoming unclear policy and regulation challenges (CP), thereby enhancing entrepreneurial performance (EP).

H2: $EA \rightarrow CP \rightarrow EP$

This hypothesis suggests that entrepreneurial ability can mitigate the impact of policy and regulation challenges on business performance, leading to better outcomes.

Entrepreneurial Ability (EA), Culture and Language Challenge (CL), and Entrepreneur Performance (EP): Entrepreneurs with strong abilities are better at overcoming cultural and language barriers, which are key to success in diverse markets. Effective communication and adaptability enhance entrepreneurial performance (Baron, 2004; Brockhaus, 1980; McClelland, 1961). Entrepreneurs with higher abilities navigate these challenges well, enabling successful cross-cultural operations and business growth (Hofstede, 2001; Shane, 2003). Overcoming such barriers improves customer engagement, market reach, and efficiency, leading to enhanced performance (Cassar, 2007; Dacin et al., 1997). Entrepreneurs often have to navigate cultural differences in international marketplaces (Hofstede, 2021). Their ability to adapt to various cultural norms, interests, and expectations allows them to effectively offer goods and services (Oppong et al., 2020). Additionally, understanding cultural differences is crucial for an entrepreneur's success in multicultural environments (Hofstede, 2021).

H3: Entrepreneurial ability (EA) positively influences the ability to overcome the social media challenge of culture and language (CL), which in turn enhances young entrepreneurs' performance (EP) in Pakistan.

H3: $EA \rightarrow CL \rightarrow EP$

This hypothesis suggests that entrepreneurial ability plays a crucial role in overcoming culture and language challenges, which can positively affect the performance of entrepreneurs in diverse environments.

Entrepreneurial Ability (EA), Digital Infrastructure (DT), and Entrepreneurs performance (EP): Entrepreneurs with strong abilities are better equipped to tackle technological and infrastructure challenges, leading to better business outcomes (Baron, 2004; McClelland, 1961). These abilities help them to adapt to and leverage resources effectively (Shane, 2003). While better-skilled entrepreneurs can overcome digital obstacles, such as; improving operational efficiency, customer reach, poor internet, and limited tools hinder performance (Amit, Zott, 2001; Bharadwaj, 2000; Dwivedi et al., 2019; Oppong et al., 2020; Porter, Heppelmann, 2014).

H4: Entrepreneurial ability (EA) positively influences the ability to overcome the lack of digital infrastructure (DT) challenge, which in turn enhances the entrepreneur's performance (EP).

H4: $EA \rightarrow DT \rightarrow EP$

This hypothesis suggests that entrepreneurial ability is crucial in overcoming the digital infrastructure challenge, which directly contributes to improved entrepreneurial performance in a technology-driven business environment.

Entrepreneurial ability (EA), Cyber Security (CBS), and Entrepreneur's Performance (EP): Entrepreneurs with strong abilities are better at managing risks, including cyber security threats, which improve business outcomes (Baron, 2004; McClelland, 1961). Cyber security risks, such as data breaches, threaten business continuity and performance, but entrepreneurs who address these threats effectively are more successful (Li et al., 2018; Simons, 2008). Proper cyber security management enhances operational efficiency, customer trust, and performance, helping entrepreneurs maintain a competitive advantage (Delmar, Shane, 2003; Kaplan, Haenlein, 2010; Soni, Verma, 2020).

Additionally, the usability of cyber security and privacy can negatively affect an entrepreneur's performance (Dwivedi et al., 2019; Venkatesh, Davis, 2000). Moreover, in the social media (digital sectors), youngsters play a critical role in creating defenses against cyber security risks (Aldairi, Tawalbeh, 2020). Youngsters can develop new technologies that improve the security of online transactions, preserve data, and protect the privacy of customers in the business sector (Aldairi, Tawalbeh, 2020). Their capacity to promptly adjust to the constantly changing characteristics of cyber threats offers enterprises strong cyber security structures (Aldairi, Tawalbeh, 2020).

H5: Entrepreneurial ability (EA) positively influences the ability to overcome cyber security (CBS) challenges, which in turn enhances the entrepreneur's performance (EP).

H5: EA → CBS → EP

This hypothesis suggests that entrepreneurial ability plays a crucial role in mitigating cybersecurity challenges, leading to improved business performance.

2. Materials and methods

In this study, quantitative research has been chosen to measure the youth entrepreneur's ability, challenges of social media in entrepreneurs, entrepreneur's performance, and uses of social media as an online communication platform among youth entrepreneurs in Pakistan. The close-ended semi-structured questionnaires and a pen-and-paper survey were used to gather information from the Youth respondents of Hyderabad (Sindh) Pakistan. This study selected only independent youth entrepreneurs, who covered services of food cooking, like food panda, fabric sales, accessories, and academic content. Each question was constructed as impartial, unprejudiced, and unbiased to the youth entrepreneurs. The Likert scale of measurement was selected to design questionnaires on (05) five points in all items of the construct, such as strongly disagree, disagree, neutral, agree, and strongly agree. This is an impartial and empirical scientific analytical study. The snowball selection of youth entrepreneurs as sampled population comprised from the Jamshoro, Hyderabad, and Shikarpour districts of Sindh. They are running entrepreneurial projects and incubator centers. According to the Krejcie, Moran (Krejcie, Moran, 1970) sample technique, 357 samples were collected from January 1st, 2024, to February 28th, 2024. A total of 380 questionnaire forms were distributed among youth entrepreneurs in sampled areas. However, 370 forms were returned and 13 forms were discarded due to incomplete information on the survey forms. The study was based on 04 items by referring to the previous reviews of the literature.

3. Discussion

Social Media Use: Many scholars state that social media is one of the advanced parts of digital technology (Fitzgerald et al., 2014). It is a significantly useful tool (Veldeman et al., 2017) that facilitates, and encourages interaction, collaboration, and communication through discussion, comments, sharing of information, likeness, dislikes, and voting (Malita, 2011), also about user-generated content (Kaplan, Haenlein, 2010). Additionally, social media is useful from an entrepreneurship perspective (Aldahdough et al., 2020; Qalati et al., 2022). Furthermore, social media platforms like Twitter, Instagram, Facebook, LinkedIn, WhatsApp, YouTube, and blogs are providing opportunities and challenges to online entrepreneurs (Brooks et al., 2014; Rippa, and Secundo, 2019). In addition to this, youngsters are more frequently using WhatsApp, YouTube, and Facebook in business start-ups (Barrera-Verdugo et al., 2022).

On the other hand, social media platforms have rapidly transformed the powerful new sources for entrepreneurs' credibility and growth (Chokpitakkul, Anantachart, 2020). Social media enables companies to create databases that provide them with a competitive edge, which boosts sales, and business expansion (Nawi et al., 2017). Many people use social media platforms like

Facebook and WhatsApp for marketing and rely on cashless payment options such as DuitNow QR Code, Touch 'n Go, Boost, Shopee Pay, and Sarawak Pay. While online food delivery services like Food Panda and Grab Food are popular, issues like payment delays, driver non-payment, and high commission fees limit their appeal (Faudzi et al., 2024).

In addition to this, entrepreneurs use social media for communication with customers, brand awareness, and marketing of products and services (Park et al., 2017). By utilizing social media entrepreneurs get a greater ability to showcase firm expertise, public relations, and customer feedback, increase sales, customer services, and satisfaction, reduced cost effects, have also been reported (Effendi et al., 2020). Researchers found that social media platforms correlate with business growth (AlSharji et al., 2018). Entrepreneurs have adopted social media in their business, which has the largest contribution to the business economy (Nawi et al., 2017). In addition to this online entrepreneurs may interact and share their goods and services with wide potential clients through social media applications (Mack et al., 2017).

Social media enables SMEs to build their relationships with customers, increase sales, better communicate, build brand loyalty, retain customers, and save money on marketing (Fang et al., 2021). Social media is used by entrepreneurs to boost their business performance (Nawi, 2019). The extensive utilization of social media in corporate management is influencing the processes of entrepreneurial learning, opportunity recognition, and difficulties (Secundo et al., 2021). Further, the use of social media platforms encourages SMEs to access valuable information and monitor the market quickly so that they can respond proactively to new trends (Troise et al., 2021).

A proactive firm takes the initiative despite having more risks, and fewer business opportunities (Antonci, Hisrich, 2001). Nevertheless, firms introducing products, predict future demand and services ahead of competitors (Veldeman et al., 2021).

Social Media Challenges: Scholars agree social media not only empowers women entrepreneurs (Chaker, Zouaoui, 2023). But also, sustaining younger-owned businesses, with platforms like Facebook, WhatsApp, and Instagram enabling product promotion and audience expansion. Strengthened government and helping them to overcome challenges and enhance their professional lives (Rahayu, Ellyanawati, 2023).

Undoubtedly, entrepreneurs face many challenges while using social media, such as a lack of technical skills in the implementation of social media applications in their business (Bakri, 2017), advanced knowledge regarding management, and product quality and services (El-Gohary et al., 2023, El-Gohary, 2012), non-supportive environment are challenges of entrepreneurs (Panahi et al., 2014). As a part of this, entrepreneurs face challenges and criticisms most frequently associated with social media use (Stephens, Miller., 2024). Moreover, researchers have identified some social media challenges that could be explored directly by online entrepreneurs generating a lack of management, policy and regulations, culture and language barrier, infrastructure, and cybersecurity. The cybersecurity awareness, recognizing risks like phishing scams, data breaches, and fake reviews to protect brand reputation (Kapoor et al., 2021).

Additionally, it was found that youth entrepreneurs should have, social media literacy, intention to use social media, and overcome those challenges (Hayter et al., 2017; Rahim et al., 2015). SMEs can improve their performance by using social media because it gives them a chance to develop their brand identity and obtain a brand-new social media platform that will eventually benefit them (Sahaym et al., 2021).

The current status of Pakistan's Ecosystem Entrepreneurs: At a cursory look over the Global Innovation Index (Global Innovation Index, GII, 2024) 39th India ranked, 64th Iran, 89th Sri Lanka, 74th Oman, 47th Saudi Arabia, and Pakistan ranked 91st out of 133. It decreased in the last year ranking 88th GII 2023 (WIPO, 2024). On the other side, there are 111.0 million internet users in Pakistan (DataReportal, 2024). Out of them 71.70 million social media users in Pakistan (DataReportal, 2024), rapidly adapting digital media for business (Invest2Innovate, 2024). Notably, Pakistan's startup ecosystem is dynamic and increasingly tech-focused. With a rising number of young entrepreneurs, fostering a supportive environment is essential for sustaining startups and boosting economic growth (Khan, 2024). Beside this, Pakistan's startup funding slowed in early 2024, following a global VC downturn. Investments fell 35 % year-over-year from 2022 \$347 million to \$72 million in 2023, remaining flat in February 2024 (Khan, 2024). Pakistani entrepreneurs face challenges like illiteracy, limited education and healthcare, supply chain issues, and low financial inclusion. However, sectors like Healthtech, Fintech, Edtech, Retail, and B2B e-commerce hold strong growth potential.

The United Nations Development Programme's (UNDP) National Human Development Report (NHDR) stresses Pakistan must create 1.3 million jobs annually to support a rising workforce, reaching 5 million by 2035 (UNDP Report, 2019). It urges formal economic expansion, entrepreneurship, youth investment, and labor market policies for sustainable growth (UNDP Report, 2019). Moreover, Economist Jim O'Neill also predicts that Pakistan may become the world's 18th-largest economy by 2050, outpacing several major nations (The Daily Dawn).

Key challenges include infrastructure gaps, with 47 % lacking internet access and connectivity issues causing \$238 million in losses in 2023. Regulatory hurdles, low R&D investment (0.16 % of GDP vs. 2.62 % global average), and limited capital access further hinder growth (Aziz et al., 2024). The Pakistan Startup Ecosystem Report 2024 seeks to fill research gaps and offer insights to unlock entrepreneurial potential. Addressing systemic challenges can drive sustainable innovation and growth (The Daily News).

4. Results

Demographic Profile of Respondents: As seen in Table 1 two-thirds were male and the remaining were female. Over two third of them were aged between 19 to 25 (73.7 %). The majority of youth entrepreneurs were undergraduates (67.8 %), mostly single (81.5 %) and one-third were married (17.9 %), and living in urban areas (67.5 %). See Table 1 for details.

Table1. Demographic Profile of Respondents (n= 357)

<i>Items</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Mean</i>	<i>Std. Deviation</i>
Gender			1.37	.483
Male	225	63		
Female	132	37		
Age			1.38	.726
19 to 25	263	73.7		
25 to 30	66	18.5		
30 to 35 and >35	28	7.9		
Qualification			3.23	.527
Matriculation to Intermediate	14	3.9		
Undergraduates	242	67.8		
Graduated and above	101	28.3		
Area of Living			1.32	.469
Urban	241	67.5		
Rural	116	32.5		
Marital Status			1.19	.407
Single	291	81.5		
Married	64	17.9		
Divorced and above	2	0.6		

Source: author's data

Researchers have applied PLS-SEM (Partial Least Squares-Structure Equation Modeling) (Hair et al., 2016; Hair et al., 2019). The PLS-SEM is the most preferred method in the exploratory study. 'It focuses on how the latent variables are related in terms of their predictive powers, and the study does not rely on the distributional assumption of the variables' (Henseler et al., 2009; Rasoolimanesh et al., 2018; Rasoolimanesh et al., 2021). The PLS-SEM approach has been applied to test the reliability and validity by using factors loading and path coefficients in the field of entrepreneurship, e-commerce, and strategic management (Chang et al., 2016; Fornell and Robinson, 1983; Hair et al., 2016; Rasoolimanesh et al., 2021).

According to Kock (Kock, 2015), PLS-SEM employed a collinearity test to determine the impact between moderate variables and independent variables. Kock (Kock, 2015) suggested the variation inflation factors (VIF). See Table 2 for details.

Table 2. Confirmatory factor analysis and reliability (Calculation based on Smart PLS)

<i>Constructs</i>	<i>Items</i>	<i>Factor Loadings</i>	<i>Alpha</i>	<i>rho_A</i>	<i>rho-c</i>	<i>AVE</i>
Entrepreneur's Social Media Literacy (ESML) (Kaur et al., 2022; Oppong et al., 2000; Shaowei et al., 2022).			0.803	0.829	0.853	0.458
	ESML1	0.707				
	ESML2	0.477				
	ESML3	0.564				
	ESML4	0.766				
	ESML5	0.757				
	ESML6	0.737				
	ESML7	0.675				
Lack of Management (CLM) (Oppong et al., 2000)			0.863	0.886	0.89	0.47
	CLM1	0.65				
	CLM2	0.73				
	CLM3	0.851				
	CLM4	0.818				
	CLM5	0.834				
	CLM6	0.818				
	CLM7	0.524				
	CLM8	0.166				
	CLM9	0.58				
	CLM10	0.588				
Lack of Policy and Regulations (CP) (Oppong et al., 2000)			0.882	0.882	0.944	0.895
	CP1	0.945				
	CP2	0.946				
Culture and language (CL) (Oppong et al., 2000)			0.649	0.875	0.764	0.531
	CL1	0.929				
	CL2	0.574				
	CL3	0.632				
Cyber Security (CBS). (Oppong et al., 2000; Hawamdeh et al., 2022).			0.696	0.712	0.797	0.399
	CBS1	0.563				
	CBS2	0.75				
	CBS3	0.538				
	CBS4	0.569				
	CBS5	0.663				
	CBS6	0.679				
Entrepreneur's Performance (EP) (Oppong et al., 2000; Hasan, Almubarak, 2016).			0.765	0.775	0.835	0.46
	EP1	0.728				
	EP2	0.695				

	EP3	0.732				
	EP4	0.786				
	EP5	0.608				

Source: Authors' Data Analysis

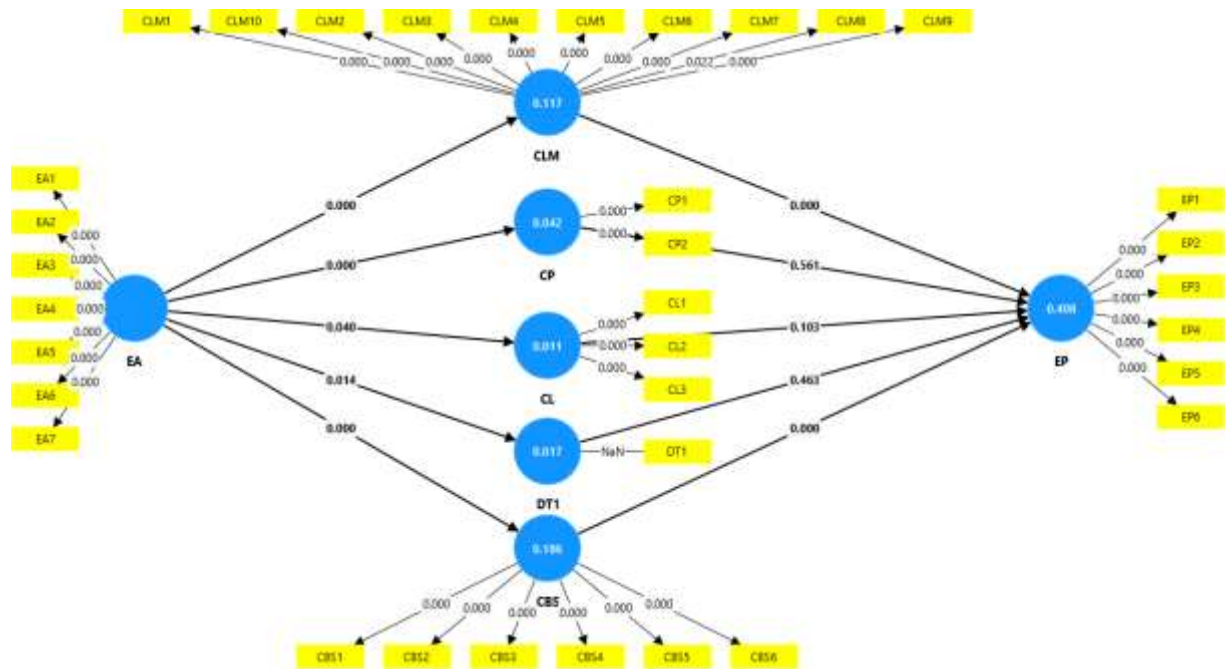


Fig. 3. Measurement Model Assessment

The measurement model was assessed and tested for reliability and validity in Table 2. The factors loading, Cronbach's Alpha, Composite reliability (ρ_a , ρ_c), and Average variance extracted (AVE) were used to analyze the model of measurement and convergent validity. Tables 2, 3, and 4 as well as Figure 1 show that, with some exceptional factors loading was higher than the suggested value of 0.60 (Hair et al., 2017). Likewise, the Cronbach's alpha and composite reliability (CR) values in Table 2 were frequently greater than the recommended value of 0.70 (Hair et al., 2017). Discriminant validity proposed a new criterion, the hetero-trait-monotrait (HTMT) ratio, to evaluate the validity and reliability of the data (See Table 3). This means that the ideas' discriminant validity is evaluated by the HTMT ratio. Values below 0.9 indicate discriminant validity (Hair et al., 2017).

After evaluating the measurement model, the structural model was analyzed for validity and reliability. Key indicators included standard errors, path coefficients, and t-values. Using Smart PLS's bootstrapping technique, path coefficients determined whether the hypotheses were supported (Ringle et al., 2005). The structural model assessment followed the measurement evaluation to ensure robustness and confirm variable relationships.

Table 3. Discriminate validity (HTMT ratio)

	CBS	CL	CLM	CP	DT1	EA	EP
CBS							
CL	0.515						
CLM	0.521	0.674					
DT1	0.46	0.416	0.345	0.361			
EA	0.526	0.176	0.381	0.224	0.136		
EP	0.699	0.273	0.605	0.406	0.239	0.82	

Source: authors' data analysis

Structural Model Assessment

Table 4 indicated that three relations between independent variables, dependent variables, and moderate variables are nonsupport and two relations were supported. Table 4 shows that the entrepreneur's ability (EA) has a significant indirect impact on the social media challenge of lack of management (CLM) and the entrepreneur's performance (EP). Hence, Relationship 1 supported ($\beta=0.163$, $SD = 0.033$, $t= 4.938$, $P < 0.05$). However, the entrepreneur's ability (EA) has a significant indirect impact on the challenges of cyber security (CBS) and the entrepreneur's performance (EP). Thus, Relationship5 also supported ($\beta=0.171$, $SD = 0.035$, $t= 4.85$, $P < 0.05$). Moreover, statistically, the entrepreneur's ability (EA) has revealed an insignificant impact on the media challenge of policy and regulation (CP) on the entrepreneur's performance (EP). Therefore, Relationship2 non-supported ($\beta= -0.009$, $SD = 0.015$, $t= 0.581$, $P < 0.5$). The second, the insignificant impact of the entrepreneur's abilities (EA) on the challenge of e-payment and the lack of digital infrastructure were faced by young entrepreneurs. Thus, Relationship 4 is non-supported ($\beta= -0.005$, $SD = 0.007$, $t= 0.704$, $P < 0.481$). (See Table 4 for details and Figure 1).

Table 4. Path Coefficient Indirect Effect

Relationship	Relationship	Original sample (O)	Sample mean (M)	Standard deviation (SD)	t values	P values	Decisions
Relationship 1	EA -> CLM -> EP	0.163	0.167	0.033	4.938	0	supported
Relationship 2	EA -> CP -> EP	-0.009	-0.009	0.015	0.581	0.561	Non-supported
Relationship 3	EA -> CL -> EP	-0.01	-0.009	0.008	1.244	0.213	Non-supported
Relationship 4	EA -> DT1 -> EP	-0.005	-0.004	0.007	0.704	0.481	Non-supported
Relationship 5	EA -> CBS -> EP	0.171	0.179	0.035	4.85	0	supported

Source: Authors' Data Analysis

Table 5. Path Coefficient Specific Indirect Effect

Relationship	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Result
EA-> CLM	0.343	0.351	0.041	8.322	0	supported
EA -> CP	0.204	0.21	0.051	3.969	0	supported
EA -> CL	0.104	0.119	0.05	2.059	0.04	supported
EA -> DT	0.132	0.135	0.054	2.46	0.014	supported

Relationship	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values	Result
EA -> CBS	0.431	0.442	0.047	9.218	0	supported
CLM-> EP	0.475	0.473	0.061	7.841	0	supported
CP -> EP	-0.043	-0.049	0.074	0.582	0.561	non-supported
CL -> EP	-0.1	-0.082	0.061	1.632	0.103	non-supported
DT -> EP	-0.035	-0.036	0.047	0.734	0.463	non-supported
CBS -> EP	0.397	0.402	0.049	8.065	0	supported

Source: Authors' Data Analysis

Table 5 indicates that all hypotheses significantly positively impact the mediated independent variable on the dependent variable. However, the relationships of CP->EP, CL->EP, and DT->EP show an insignificant impact of the mediated dependent variable on the independent variable. See Table 5 for details and Figure 1.

5. Conclusion

The study aims to comprehensively understanding the influence of social media literacy and the challenges on the young entrepreneurs' performance in Sindh, Pakistan. The findings of the study found that young entrepreneurs can overcome the challenges of social media-accelerating factors in business. In this study the research question: How social media literacy and challenges impact on their business growth and customer engagement? The various social media challenges are; lack of management, unclear/lack of policy and regulations, barrier of culture and language, lack of digital infrastructure, and cyber-security were explored through reviews of previous literature. Young entrepreneurs have strong knowledge and abilities to undergo these challenges at the startup of their business. The findings of each social media challenge are discussed below;

Lack of management Challenge: Under the variable of lack of management challenges, a total of ten (10) questions were asked to the young business owners while using social media. For example; lack of technical skills (CLM1), lack of brand awareness to entrepreneurs (CLM2), customer's awareness of new product (CLM3), lack of managerial approaches (CLM4), lack of strategies (CLM5), lack of marketing of goods or services (CLM6), lake of high cost of business investment (CLM7), lake of internet access (CLM9), and lake of business experience (CLM10). The results emphasized that challenges of management, technical skills, strategy, short experience, and marketing issues are no longer challenges for young entrepreneurs. It shows that they are good social media users. Furthermore, they can handle social media issues immediately. Thus, young entrepreneurs require more attention in technical training, persuasive communication, and advanced information. Oppong et al. (Oppong et al., 2020) supported the results of the study. In this regard, Goh et al. (Goh et al., 2013) 'analyze a Facebook page of clothes retailer's online community's purchase information to demonstrate that indirect communication performs better in both persuasive and informational communication'. Moreover, 'due to the unavailability of the Internet, people can not request and supply information at any time, from any location, via a variety of devices' (Belanche, Casalo, 2015).

Unclear Policy and Regulation on Social Media: Under the heading of lack of policy and regulation challenges of social media, only two questions were asked to business owners. It has been found that the majority of entrepreneurs do not have updated information regarding policies and regulations on social media platforms that would safeguard their copyrights and business. Most of them are anxious to reduce the risk of copyright ownership. Therefore, government organizations should develop or change a safety mechanism to safeguard business reputation.

Culture and Language Barrier: A total of six (03) questions were asked to the Pakistani young entrepreneurs who deal with social media. Thus, it has been found that culture and language have very little impact on the development of business. Some studies have noticed that 'local dialect and organizational culture and hierarchies create problems for companies using social media platforms' (Chatterjee, Kar, 2020; Li et al., 2018).

Lack of Digital Infrastructure (DT): Only one question was asked of young entrepreneurs related to the infrastructure issue of social media. The majority of the entrepreneurs operate various applications of social media on Android mobile devices. In the AI age, the proper infrastructure of technology is essential. In the COVID-19 pandemic, many entrepreneurs have diverted their business online. Technological infrastructure is essential for each business.

D. Khajeheian (Khajeheian, 2013) indicated that 'electronic payment and infrastructure was challenging for some developing nations'. Furthermore, the social media platforms of each firm in any country play an important role, contributing to all business stakeholders.

CyberSecurity (CBS): A total of six (06) questions were asked to the responder concern to the challenges of cyber-security on social media platforms. Such as; (CBS1) high risk of online threat of e-payment, (CBS2) suspicious e-mail, (CBS3) face bullying, (CBS4) balance time, (CBS5) face challenges, (CBS6) violation of customer's privacy. However, young entrepreneurs are good social media users, who can deal with cybersecurity-related issues. On the other hand, in other studies, violation of the business code of ethics, guidelines, customer privacy, and cyber-security challenges faced by entrepreneurs (Durkin et al., 2013; Li, et al., 2018).

Hence, the results of the study reveal that most entrepreneurs encounter the social media challenges because of better literacy regarding uses of social media. The findings of the study supported by some researchers (Bala, Verma, 2022; Durkin et al., 2013; Dwivedi et al., 2019; Dwivedi, 2022; Kaur et al., 2022; Oppong et al., 2020; Qalati et al., 2022; Shaikh, Ahmad 2024).

Thus, social media literacy is a critical competency for online entrepreneurs, enabling them to navigate social media challenges, cybersecurity threats and misinformation, which hinder their business potential. To overcome these social media challenges, literacy, strategic use, and cybersecurity measures are essential for entrepreneurs to fully harness the power of social media.

Government and private organizations, firms, and industries need to construct social media policies and regulations, digital infrastructure, e-payment process, effective communication, and sales. Additionally, this paper assesses the importance of learning technological skills to overcome social media challenges.

The study offers implementation to policymakers, decision-makers, government programs, social media users, and online entrepreneurs. The study is just conducted only in the Sindh, province of Pakistan due to a lack of resources. The study recommends employing qualitative research methods to uncover realities in the country and other states.

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