

# The Role of e-Entrepreneurship in Fostering Youth Empowerment: Opportunities, Challenges, and Pathways for Socio-Economic Development

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## Abstract

*The Purpose of this study is to examine the relationship between e-entrepreneurship and youth empowerment, with a specific emphasis on the mediating effect of entrepreneurial mindset in a developing economy context. Design/methodology/approach. A quantitative method using a cross-sectional survey of 317 respondents aged between 18 and 35 from District Khairpur and neighbouring regions in Sindh, Pakistan. Data were gathered using a structured questionnaire and analyzed with SPSS, applying correlation, regression, and mediation analyses. The results indicate a positive and significant impact of E-entrepreneurship on youth empowerment. Our findings also indicate that e-entrepreneurship strengthens the entrepreneurial mindset, as it is associated with better empowerment results. Mediation analysis supports the conclusion that e-entrepreneurship influences youth empowerment, in part, through their entrepreneurial mindset. The study emphasizes bridging entrepreneurial upliftment within digital entrepreneurship efforts to ensure maximum youth empowerment. These insights will benefit policymakers, educators, and other development actors seeking to leverage digital talent in order to foster economic growth through youth and entrepreneurship programming in developing economies.*

**Keywords: e-Entrepreneurship, Youth empowerment, Entrepreneurial mindset, Socio-Economic Development**

**JEL Classification: C12, J24, L26, O12, O33**

## INTRODUCTION

E-Entrepreneurship is a concept highlighting that entrepreneurship today goes far beyond traditional business. With this transformation, there is a greater opportunity for youth to engage in economic activity, innovate, and contribute to socio-economic development. With rising unemployment and the increasing scarcity of jobs, especially in developing economies,

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e-entrepreneurship has become one of the most promising options for empowering youth to become job creators rather than job seekers. Recent studies present entrepreneurship as a vital factor for job creation, economic development, and youth empowerment through skill development, self-efficacy, and income-generating capability (Hadri, 2024)

Youth represent a large share of the population in emerging economies and contribute significantly to national development (World Bank, 2023); (United Nations, 2020). Youth empowerment is a core element of effective governance, leadership, and sustainable development (UNDP, 2022). E-entrepreneurship, which refers to the use of digital platforms and online technologies to start or run businesses, opens new economic opportunities for young people beyond the confines of traditional employment (Kraus et al., 2019; Audretsch, 2021). It allows young people to fully engage in the digital economy, thereby giving innovation, job creation, and economic and social development new impetus (Elshaiekh et al., 2023).

Various researchers have observed that internet use, social media, mobile apps, and other digital technologies enable young entrepreneurs to access global markets, innovate rapidly, and create sustainable income streams. In this way, e-entrepreneurship has the potential to reduce youth unemployment and poverty by expanding income-generating opportunities (Alzate et al., 2024).

In developing circumstances where formal jobs are scarce and resources are limited, digital entrepreneurship can “level the playing field” for youth, enabling them to work from home or remote areas, build networks, and access markets without heavy capital investment. Youth empowerment refers to enabling young people to gain control over their lives through access to resources, education, and opportunities that enhance their economic and social well-being. Digital entrepreneurship and empowerment involve providing youth with the tools and skills to create income-generating ventures and to influence their socio-economic environment (Nambisan, 2017; Jennings et al., 2006).

Research shows that youth who are empowered through entrepreneurship are more self-reliant and active multi-stakeholders in society, contributing to policy awareness and social justice (Naudé, 2010; ILO, 2022). It focuses on the individual and component capacities of youth to facilitate their participation in social change processes (Jennings et al., 2006). In this regard, E-entrepreneurship is significant in creating not only economic empowerment through self-employment and income generation but also inclusion by strengthening youth voice, participation, and decision-making capacity (United Nations, 2020); (Kraus et al., 2019; Elshaiekh et al., 2023). Yet, despite its increasing significance, there is very little empirical data on e-entrepreneurship and youth empowerment in emerging economies, highlighting a gap in the prevailing literature (Nambisan, 2017; World Bank, 2016).

To address this gap, this work examined how E-entrepreneurship influences youth empowerment in a developing-country setting. The focus of this work was: how digital entrepreneurial activities affect youths’ economic independence and social agency, and whether cultivating an entrepreneurial mindset is a mechanism through which empowerment occurs.

### ***Research Objectives***

- 1 To assess the relationship between e-entrepreneurship and youth empowerment

- 2 To analyze the significant and positive influences of E-Entrepreneurship on youth empowerment.
- 3 To examine the mediating role of entrepreneurial mindset in the relationship between E-entrepreneurship and youth empowerment.
- 4 To enquire into the significant and positive impact of the entrepreneurial mindset on Youth Empowerment outcomes.

## LITERATURE REVIEW

Digital entrepreneurship has emerged as a critical driver of youth empowerment and sustainable growth. It “implies a radical transformation of economic paradigms, allowing new entrepreneurs to create a more sustainable, creative, and connected future” (Abdullah et al., 2025). Apeh et al. (2023) found that youths engaged in digital income-generating activities (content creation, web development, digital marketing, crypto trading, app development) exhibit higher levels of self-employment, wealth, business networks, market access, and knowledge enhancement. So, it can be said that E-entrepreneurship “positively contributed to youth empowerment and national growth through job creation. Similarly, Okegbe (2025) noted that harnessing digital entrepreneurship skills among youth can advance inclusive economic growth and competitiveness. In addition, E-Entrepreneurship is a fundamental channel to create income-generating opportunities. It also facilitates access to resources, as existing literature points out, promoting economic independence and social and economic development for youth (Deinibiteim, 2026).

### *Entrepreneurial Mindset and Youth Development*

Youth development relies on an entrepreneurial mindset, which is optimistic by nature, enhances cognitive skills, and improves socio-economic conditions. Provides youngsters with vital skills: Creativity, Problem-solving, Risk-taking, Adaptability, and so on. To grow up for both their personal and professional development, they should possess some fundamental abilities. It has been shown that an entrepreneurial mindset molds an individual into a leader and innovator, ultimately preparing youth to contribute to society's development, both economically and socially (Tunio, 2024).

Moreover, the entrepreneurial mindset is highly associated with human capital development, as it bolsters internal capabilities such as opportunity recognition, goal orientation, and resource management. Such competencies equip youth to be proactive, independent, and agentic in navigating an uncertain environment, and are fundamental components of youth empowerment and development (Kittimetheekul, 2020).

Extant empirical evidence shows a substantial effect of an entrepreneurial mindset on the entrepreneurial intentions, motivation, and preparedness among youth. This fosters a sense of self-efficacy and confidence, leading them to pursue careers in entrepreneurship and thereby boosting economic progress (Khetarpal et al., 2025).

Moreover, recent research shows that an entrepreneurial mindset helps youth entrepreneurs become more resilient and persistent by enabling them to cope with challenges such as a lack of finance and excessive regulations. This ability to bounce back is a major ingredient in entrepreneurship, as it fosters sustained participation over time (Jawo et al., 2025). The literature

indicates and supports the view that the entrepreneurial mindset is a primary mechanism linking youth capabilities to innovation, employability, and socio-economic development.

An entrepreneurial mindset characterized by resilience, initiative, creativity, and risk-taking is widely regarded as crucial for entrepreneurial success. Jawo et al. (2025) emphasized that a well-developed entrepreneurial mindset is essential in today's competitive environment and benefits individuals across sectors. Such a mindset can enhance employability and innovative capacity in youth development. Further, it is also observed that participating in e-entrepreneurial ventures can cultivate such a mindset, which in turn increases the chances of empowerment. Various studies indicate that entrepreneurial skills training (part of e-entrepreneurship education) boosts youths' confidence and problem-solving abilities. Thus, an entrepreneurial mindset may serve as the mechanism linking digital entrepreneurship to empowerment (Tunio, 2024; Satar et al., 2024; Kulmie et al., 2023; Munawar et al., 2023).

### ***Socio-Economic Inclusion and Sustainable Development Youth***

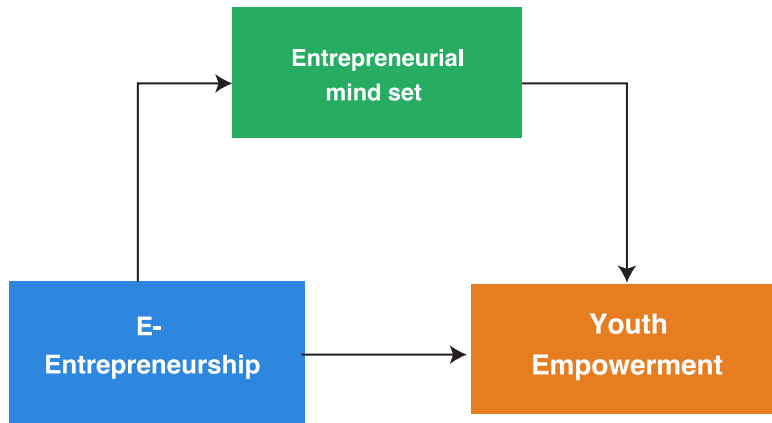
Empowerment through entrepreneurship also aligns with broader development goals. Digital platforms promote social and economic inclusion: these can “substantially grow businesses” and are “crucial in promoting youth, social and economic inclusion, and gender equality”. Combining new technologies (apps, data services) can improve local industry efficiency or market matching, generating more income and resilience (Paracha et al., 2025; Rizvi et al., 2025; Yang, 2024). Furthermore, mobile apps, data services & online platforms enhance market efficiency by improving matches between producers and consumers, reducing transaction costs, and expanding market reach. It allowed entrepreneurs to scale up their businesses and earn more income and stability. Research also shows that digital innovation enhances operational efficiency, mobilizes resources, and increases access to larger markets, thereby making small firms more sustainable (Bintang & Rasulong, 2026).

Additionally, one of the key contributions of tech entrepreneurship is that it elevates participation in economic activities and enables inclusive growth by tearing down some of the most pronounced socio-cultural and structural barriers, especially for women & youth. Consequently, digital entrepreneurship is an important instrument to connect innovation with inclusive growth, economic empowerment, and gender equality.

However, most scholars also highlighted severe issues faced by youth entrepreneurs, such as limited access to network connectivity, funding shortages, cultural resistance, and family responsibilities (Oluwaseun, 2025; Olawale & Garwe, 2010). Further, Apeh et al. (2023) also said that lack of capital, unreliable electricity, and limited information are barriers for youth entrepreneurs.

While e-entrepreneurship has promise, realizing its empowerment potential requires focus on structural obstacles. Recent studies concur that digital entrepreneurship is a powerful enabler of youth empowerment and economic inclusion. Yet empirical work explicitly testing these pathways (especially mediated by mindset) remains sparse. This study aims to fill the gap by empirically examining the EE→YE relationship and the role of entrepreneurial mindset (Yang et al., 2022; Alom et al., 2025).

## Research Model



**H1:** E-Entrepreneurship has a significant and positive influence on youth empowerment.

**H2:** There is a significant mediating role of Entrepreneurship in the relationship between E-entrepreneurship and youth empowerment.

**H3:** There is a significant and positive impact of an entrepreneurial mindset on Youth Empowerment outcomes.

## METHODOLOGY

In this study, a quantitative research method and a cross-sectional survey design were used. The sample consisted of 317 youth respondents (aged 18 to 35 years) from the city of Khairpur. For data collection, the stratified sampling method was used to ensure diversity across regions and backgrounds. For this purpose, respondents completed a structured questionnaire that measured the key constructs: E-Entrepreneurship (EE), Entrepreneurial Mindset (EM), and Youth Empowerment (YE).

The EE scale was adopted from previous studies (Poon, 2010). The EM construct was measured using items assessing attitudes such as risk-taking, innovativeness, and perseverance (adapted from entrepreneurial attitude inventories). The Youth Empowerment (YE) scale focused on the youth's perceived economic independence (income, self-employment, stability, and growth dimensions) and social agency (confidence in general and its impact on the community).

## RESULTS

**Table 1.** Demographic Profile of the Respondents

Demography	Option	Frequency	Percent
Age	15-20 years	15	4.7
	21-25 years	193	60.9
	26-30 years	66	20.8
	More than 30 years	43	13.6

Gender	Male	217	68.5
	Female	100	31.5
	Total	317	100.0
Qualification	Matriculation	22	6.9
	Graduation	100	31.5
	Diploma	141	44.5
	MPhil/ PhD	54	17.0
	Total	317	100.0
Marital status	Single	244	77.0
	Married	73	23.0
	Total	317	100.0

The data were gathered, then analyzed and presented directly in accordance with the nature of the results. Further, Table 01 presents the demographic profile of the respondents, indicating a total of 317 who actively participated in data collection. Moreover, as shown in the table, a majority of participants in this study (60.9%) fell within the age bracket of 21–25 years, indicating that most were young individuals actively engaged in learning and skills development.

This demographic profile aligns with a generation of young people seeking technology and business opportunities. The gender proportions are male-dominated: 68.5%, a very male-dominated sample compared to females, with a small participation rate (31.5%), indicating that men are highly accessible for digital skills initiatives. Further, a greater provision of and interest in these opportunities offers them opportunities for self-engagement within those contexts. Regarding educational qualifications, most respondents held a Diploma (44.5%), followed by Graduates (31.5%); 17 percent held MPhil/PhD Degrees, and only 6.9 percent held the highest degree, Matriculation.

This indicates that most participants were well-educated, possessing technical or higher-level academic backgrounds suitable for engaging in e-entrepreneurship and digital learning. Furthermore, the marital status data showed that 77% of respondents were single, while 23% were married, highlighting a predominantly youth-driven and unmarried population that is more flexible, ambitious, and interested in exploring emerging digital opportunities for empowerment and career growth.

**Table 2. Reliability Analysis**

Cronbach's Alpha	N of Items
0.792	18

Table 2 indicates the result of the reliability analysis, which showed good internal consistency. The overall scale had Cronbach's alpha = 0.792 (18 items), which is above the commonly accepted threshold of 0.60, indicating acceptable reliability and supporting the continuity of the further research process.

**Table 3. Correlation Analysis**

		Correlations		
		EE	EM	YE
EE	Pearson Correlation	1	.605**	.636**
	Sig. (2-tailed)		0	0
	N	317	317	317
EM	Pearson Correlation	.605**	1	.654**
	Sig. (2-tailed)	0		0
	N	317	317	317
YE	Pearson Correlation	.636**	.654**	1
	Sig. (2-tailed)	0	0	
	N	317	317	317

\*\* . Correlation is significant at the 0.01 level (2-tailed).

### **EE → EM (PC = .605, p < .001)**

Table 3 indicates a strong, positive, and statistically significant correlation between E-Entrepreneurship (EE) and Entrepreneurial Mindset (EM). This sets the standard for defining digital entrepreneurship: beyond just being an income source, it also has a profound impact on youth mindsets. Practice-based e-entrepreneurship demonstrates that the entrepreneurial mindset can be developed, supporting findings from various studies affirming this (Pidduck et al., 2023).

### **EE → YE (PC = .636, p < .001)**

Furthermore, a strong and significant correlation is observed between E-Entrepreneurship and Youth Empowerment (YE). This means that youth who engage more in e-entrepreneurship are more socially empowered, and that this engagement also increases confidence, agency, decision-making power, financial independence, job creation, and income security. These results support H1: “There is a significant and positive influence of E-Entrepreneurship on youth empowerment”. It indicates that self-employment, wealth creation, and market accessibility are also forms of empowerment, and when the youth can do all of these, it indicates their empowerment.

### **EM → YE (PC = .654, p < .001)**

However, the table also indicates a strong relationship between Entrepreneurial Mindset and Youth Empowerment. It explains that the Entrepreneurial Mindset is a critical driver of empowerment. Youth who cultivate resilience, innovation, and initiative through entrepreneurial thinking are significantly more empowered. This supports H3 and reinforces the mediation idea (H2) that the entrepreneurial mindset is a key mechanism through which e-entrepreneurship translates into empowerment outcomes.

**Table 4. Regression Analysis (EE → YE)**

### **Model Summary**

R	R Square	Adjusted R-Square	Std. Error of Estimate
0.636	0.405	0.403	2.50577

**ANOVA**

Source	Sum of Squares	Df	Mean Square	F	Sig.
Regression	1344.350	1	1344.350	214.106	0.000
Residual	1977.852	315	6.279		
Total	3322.202	316			

**Coefficients**

Predictor	B	Std. Error	Beta	T	Sig.
Constant	7.432	1.421	—	5.230	0.000
EE	0.855	0.058	0.636	14.632	0.000

Table 4 presents the Regression analysis and includes the model summary, ANOVA, and Coefficient tables. This explains that multiple regression assessed the direct effect of EE on YE; second, a mediation analysis (using bootstrapping in SPSS PROCESS or a similar method) evaluated the indirect pathway through EM. Significance was determined at  $p < .05$ . Demographics (age, education) were controlled in models.

**Table 5. Mediation Analysis (EE → EM → YE)**

**Model Summary (Mediation Path)**

Outcome Variable	R	R <sup>2</sup>	F	Sig.
EM	0.606	0.367	182.335	0.000
YE	0.721	0.519	169.478	0.000

**Coefficients (Mediation Model)**

Outcome	Predictor	B	SE	t	P	LLCI	ULCI
EM	Constant	8.284	1.218	6.801	0.000	5.887	10.680
	EE	0.676	0.050	13.503	0.000	0.578	0.775
YE	Constant	3.195	1.370	2.332	0.020	0.499	5.890
	EE	0.509	0.066	7.702	0.000	0.379	0.639
	EM	0.512	0.059	8.645	0.000	0.395	0.628

**Direct and Indirect Effects**

Effect Type	Effect	SE	t	P	LLCI	ULCI
Direct (EE→YE)	0.509	0.066	7.702	0.000	0.379	0.639
Indirect (EE→EM→YE)	0.346	0.111	—	—	0.061	0.515

**DISCUSSION**

The findings demonstrated that engaging in E-entrepreneurial activities significantly empowers youth socially and economically, which is consistent with recent empirical evidence. Apeh et al. (2023) found that E-entrepreneurship, i.e., social media marketing, content creation, online collaboration, “positively contributed to youth empowerment” through self-employment, wealth creation, network expansion, and market access. Likewise, Okegbe (2025) highlights that E-entrepreneurship among youths is “not just a response to unemployment; it is a long-

term investment in economic sustainability". This implies that e-entrepreneurship has a strong positive correlation ( $\beta = 0.636$ ) with youth empowerment, consistent with these studies. The adjusted effect size ( $R^2=0.405$ ) indicated that digital entrepreneurs accounted for a large portion of the explanation of youths' economic well-being.

An entrepreneurial mindset partially mediated the empowerment effect, suggesting that E-entrepreneurship processes promote an entrepreneurial environment. To put it differently, this form of entrepreneurship pushes youth to practice their initiative and creativity more actively, along with the resilience that tremendously reinforces their empowerment. In terms of theoretical coherence, "Human Capital Theory" posits that digital business skills learned translate into greater productivity and income potential. Empowerment Theory emphasizes that as youth gain these skill sets or experience, they build self-efficacy regarding their socio-economic situation. Accordingly, Degefu et al. (2024) argue that a well-developed entrepreneurial mindset is becoming increasingly important for competitiveness, as individuals live at the speed of life, where it matters how flexible and solution-oriented they can be. Our findings suggest that e-entrepreneurship may help address these mindset traits. The positive direct effect of EE on YE indicated that some benefits of E- entrepreneurship flow through other channels as well. For example, simply using digital platforms may give youth access to markets and information that immediately improve their economic status, independent of a mindset change.

In fact, Apeh et al. (2023) found that youth using digital platforms (WhatsApp, social media) could tap into new business networks and opportunities, leading to job creation and income. Similarly, social media usage by youth entrepreneurs helps build networks and brand presence at low cost, effectively expanding their enterprises. E-entrepreneurship is believed to be an important engine of inclusive growth, enabling diversification in economies that are largely agriculture- and manufacturing-oriented. This also means that Youths with limited resources can innovate by creating applications that serve local needs using open data. These opportunities serve to bring vulnerable youth into the economic fold. As previous literature points out, new technologies can make the characteristics of digital spaces "promote youth, social and economic inclusion, and gender equality" (EIGE, 2019; ITU, 2020; UN Women, 2022; Faulkner & Lie, 2007).

However, achieving these positive outcomes in low-resource settings requires overcoming challenges. Our recent results and studies highlight issues (Apeh et al., 2023). Likewise, according to Idowu (2025), low internet penetration in most rural areas, limited venture funding, and shifting traditional employment preferences pose serious limitations to e-entrepreneurship education. These barriers likely limit the potential for empowerment of e-entrepreneurship. It indicates that skill training needs to be supported by infrastructure (broadband, power), credit facilities (microcredit, startup grants), and awareness building. Our results strengthen the role of an enabling ecosystem compared to recent research.

On the other hand, Idowu (2025) highlights three pillars that are useful for taking advantage of digital entrepreneurship, namely: a sound physical infrastructure by means of technological electronics; an education conducive to market needs (technology skills); as well as support from ecosystem voices like mentorship and policies functionally structured towards inclusion. Booms with our implication that mentoring of an entrepreneurial mindset is fundamental. In addition, practices such as DEE (Digital Entrepreneurship Education), which combine classroom and

experiential learning, have demonstrated high-impact results. In total, our results substantiate recent work by quantitatively confirming that e-entrepreneurship is a dynamic channel for youth empowerment, but only when accompanied by some degree of educational and/or policy support.

## **CONCLUSION, LIMITATIONS, AND RECOMMENDATIONS**

### ***Conclusion***

In conclusion, the study provides robust evidence that e-entrepreneurship is a key driver of youth empowerment and socio-economic development in emerging contexts. The positive influence of e-entrepreneurship engagement on youth empowerment ( $\beta = 0.636$ ,  $p < .001$ ) suggests that economic independence and social agency of young people are highly strengthened by access to digital entrepreneurial activities. Further conditioning, the significant indirect effect through entrepreneurial mindset (partial mediation) suggests that this empowerment is partially a result of fostering enterprising, resilient youth. This aligns with theoretical perspectives that suggest youth digital skills are economic goods for both individuals and communities, and that empowerment is understood in terms of access to tools and agency. From a practical perspective, our findings suggest that youth empowerment programs may benefit from integrating elements of e-entrepreneurship (Jerome et al., 2025). Governments and NGOs can improve youth contributions to the economy by providing training in digital business skills and an entrepreneurial mindset. The question is more urgent than ever in developing nations with few formal job markets. According to Okegbe (2025), bridging the gap in digital skills is an investment in sustainable economic growth that capitalizes on the youth demographic dividend. Finally, integrating e-entrepreneurship into youth development strategies helps foster inclusive growth, innovations, and pragmatic endeavors toward poverty alleviation.

### ***Limitations***

Several limitations should be acknowledged. First, as a cross-sectional design precludes causal inference, longitudinal studies would provide further support for how e-entrepreneurship leads to empowerment over time. Second, the present study was conducted in the regional context of a single developing country ( $N = 317$ ), so the results cannot be generalized across all contexts. Third, we used self-reported questionnaires for measurement, which may have introduced bias. Fourth, our model included only a single mediator (entrepreneurial mindset); other important mediating factors that may be vital to understanding this process were not studied here (e.g., self-efficacy, social capital). Finally, neither government policy nor market conditions were analyzed, even though they influence the subjects in question. Using mixed methods, large sample sizes, and additional e-entrepreneurship variables may address these limitations in future analyses to capture the full effects of this phenomenon on youth empowerment.

## **RECOMMENDATIONS**

- Governments & partners should invest in reliable internet connectivity and power availability (both urban, peri-urban, semi-rural/ rural). Increased internet access will enable greater youth participation in e-entrepreneurship activities.

- Educational institutions and training centers should integrate DEE into their curriculum, so that students are taught not only how to acquire technical ICT skills, but also the ins and outs of setting up their own online businesses.
- Workshops and mentorship programs must be arranged for the youth's explicit creativity, problem-solving, and risk-taking components.
- Policymakers need to ease access to finance (including microloans and grants) and implement supportive policies for young digital entrepreneurs. This includes tax incentives or more easily navigable e-commerce regulations. These might take the form of public-private partnerships to support small businesses, seed funding, and mentorship networks.
- Vulnerable groups should be prioritized. Examples include reducing cultural resistance rather than widening the gender gap, for instance, making tech incubators women-friendly and raising awareness among parents/caregivers about digital career pathways. Expanding access will optimize the socio-economic impact of youth entrepreneurship.

### **Implications**

This research has several implications for policy, theory, and practice. From a policy perspective, the nexus between e-entrepreneurship and youth empowerment strongly justifies market development policies for the digital economy tailored to empower young people. The results also indicate that an entrepreneurial mindset could be included in both education and youth employment measurements & programmes. From a theoretical perspective, scholars' work adds to the literature on entrepreneurship and youth development by empirically testing mindset as a mediating mechanism in the digital age. It can be supported by Human Capital Theory (in e-entrepreneurship, especially the role of skills as capital) and Empowerment Theory (empowerment of others occurs through the provision of resources, including agency). Theoretical Models of Youth Development: "Digital Entrepreneurship" as a Separate Pathway. In practice, these insights can provide contexts for educators, NGOs, and business support organizations to design programs. Digital business projects can be incorporated into training for curriculum developers who understand that hands-on e-entrepreneurship work builds not only skills but also motivation through empowerment outcomes. That makes the socio-economic meaning obvious: Young people become drivers of innovation, jobs, and social change by living up to their potential for the community and the economy.

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