

INSTITUTIONAL INTERMEDIARIES IN EMERGING COUNTRIES

Why Scaling Up is easier said than done

Olugbenga Victor Afolabi

OAfolabi1@student.hult.edu

Hult International Business School, Ashridge UK

Abstract

This study investigates the role of institutional intermediaries in facilitating the scale-up of startups in emerging markets, with a specific focus on Nigeria , a country characterized by significant institutional voids. Previous research has addressed the role of institutions in the growth and development of startups in resource-constrained environments, however, there is limited empirical studies examining the impact of institutional intermediaries on startup scale-up in the African context. Utilizing the lens of entrepreneurial bricolage, this study addresses this gap .

To examine the influence of intermediaries on start-ups, we rely on a survey of 400 founders and co-founders within Nigeria's startup ecosystem. Our findings reveal that institutional intermediaries have a positive direct relationship with scale- up activities of startups and entrepreneurial bricolage partially mediates this relationship. This study contributes to the intersection of entrepreneurship and institutional research, providing valuable insights for policymakers and practitioners in fostering entrepreneurial growth in African contexts.

Keywords: Business performance, entrepreneurial bricolage, funding, institutional void, institutional intermediaries, scale-up, startup innovation performance

Introduction

Entrepreneurship is a critical and crucial driver of economic growth and development, with start-ups playing a pivotal role in this dynamic landscape in recent years (Chowdhury et al., 2019). Despite the rapid increase in number of start-ups, many entrepreneurs struggle to expand their business venture, limiting and restricting their impact and economic influence. In emerging economies, the scale-up of start-ups is often hindered by underdeveloped or absent institutions (Bağış et al., 2024; Easterly, 2006). When institutions necessary to support and enhance scaleup are weak or absent, institutional intermediaries step in to fill this gap (Cao & Shi, 2021; Easterly, 2006).

This study views Institutional intermediaries as a complex, multi-dimensional construct (Aguilera & Grogard, 2019). According to Khanna and Palepu's (1997) classification, there are five types of institutional intermediaries: product market intermediaries, capital market intermediaries, regulatory market intermediaries, information market intermediaries, and talent market intermediaries. Each of these category of inetrmediaries play a crucial role in facilitating the scale-up activities of start-ups, providing essential support in areas such as market access, funding, regulatory compliance, information dissemination, and talent acquisition. Understanding and harnessing the efficacy of each intermediary category are paramount for start-ups seeking to navigate the challenges of scale-up in an institutional void environments (Zhang & Roelfsema, 2022) .

Start-ups rely on institutions to perform their duties and participate in market creation. (Mair & Marti, 2009) The influence of institutions on firm-level innovative performance is well-acknowledged in recent research (Armanios et al., 2017; Yao et al., 2022), but there is a lack of studies examining the effect of institutional intermediaries on start-ups' scaling capacity in

emerging countries with weak or non-existent institutions. In these contexts, it is argued that entrepreneurs frequently employ ingenuity and entrepreneurial bricolage to expand their businesses (Honig et al., 2014). Entrepreneurial bricolage involves improvising and utilizing available resources to grow ventures under conditions of resource constraint.

In this empirical study, we address this research gap by examining institutional intermediaries' role when entrepreneurs are vying to scale up in resource-constrained environments such as Nigeria. We draw on institutional and entrepreneurial theories to examine the impact of institutional intermediaries on scaling-up activities of entrepreneurs in emerging market contexts. Firstly, we offer insights on how institutional context forms a crucial part of the entrepreneurial ecosystem. Secondly, we highlight the interaction between entrepreneurial bricolage and institutional intermediaries, and how entrepreneurs overcome institutional voids using bricolage. This study bridges the gap between entrepreneurship and institutional research in Africa.

In this study we introduce a dual-lens in examining scale-up from both input and output variables, thus offering a holistic view of the scale-up construct. This study contributes to the intersection of entrepreneurship and institutional research, particularly within Africa. Our choice of Nigeria is driven by its peculiarity as most populous country in Africa, and by the fact that it has the highest number of start-ups and fundraising activities (Disrupt Africa, 2022). However, despite this track record and proliferation of ventures, a poverty reduction effect of entrepreneurial activities is notably absent, further suggesting a high presence of necessity entrepreneurs who have yet to scale their ventures successfully. The preceding makes Nigeria an ideal location for our study.

Furthermore, the National Bureau of Statistics Report for 2022 reveals that 133 million Nigerians, representing 63% of the population, live in multidimensional poverty with

insufficient income below \$2/day; this number has risen from approximately 85 million recorded in 2016 (National Bureau of Statistics, 2022). Start-ups effectiveness in employment generation and poverty alleviation is put under scrutiny. According to the World Bank (2014), Nigerian small businesses face significant challenges due to institutional voids.

This research study explores the theoretical foundations from an institutional and entrepreneurial standpoint. Based on this theoretical framework, hypotheses are derived. The subsequent sections outline the study's methodology, present the analysis results, and discuss the findings. The paper suggests potential further research areas while acknowledging its limitations.

2.Literature Review and Theoretical Framework

2.1 Institutional Theory and Startups

Organizations are shaped and governed by a complex network of laws, regulations, rules, values, and norms within societies. These elements shape organisations' institutional environment and affect or are affected by the organizations and their activities (Aguilera & Grogard, 2019). Institutional theory, which explains how institutional structures influence firms, groups, and individuals, has evolved through the work of Bruton et al. (2010). According to scholars such as Meyer and Rowan (1977), and Willmott (2015), the institutional-based perspective accounts for varying business success and expansion while adopting norms to enhance efficiency and legitimacy. This perspective aligns with Lawrence and Suddaby (2006), Kraatz (2011), and Scott's (2013) institutional work findings, which alludes that organizations and individuals construct, manipulate, or establish institutions to further their social objectives. We therefore consider the institutional context in which a startup operates as crucial for it to be able to achieve its objective in an efficient and

legitimate manner. Where relevant institutions which confer legitimacy and support operational efficiency are absent or weak, firms seek alternatives to mitigate these institutional voids. The workaround practices and substitutes created by firms serve as institutional intermediaries needed for legitimacy and operational efficiency. We therefore propose that Institutional theory provides insight into how institutions influence market behavior and an appropriate framework for this study.

Institutional theory explains how entities improve their status and legitimacy by conforming to their environment's leading rules and conventions (Jug, 2019; Meyer & Rowan, 1977; Scott, 2008). The text uncovers the interconnected relationship between institutions and organizations, demonstrating how each entity shapes the other. North (1990) defines institutions as "human-imposed restrictions shaping international relations." This definition facilitates the analysis of institutions in emerging markets and their function in alleviating uncertainty and rectifying market discrepancies while regulating human and organizational dealings (North, 1990; Winslow, 2019).

In developing economies, the lack of market-supporting institutions can foster opportunistic behavior and heighten transaction costs. (Hoskisson et al., 2000, Aguilera & Grogard, 2019). Institutional intermediaries' role in scaling up start-ups is analyzed using institutional theory in this study. This study, employing an empirical approach, underscores the importance of institutional intermediaries in facilitating the scale-up process within complex institutional contexts of firms.

2.1.1 Institutional Intermediaries and Startups

Institutional intermediaries have been defined as a link between two or more parties from the private or public sectors which aim to create and develop a stable institutional environment to facilitate business activities (Cao & Shi, 2021; Dutt et al., 2016; Van der Meulen et al., 2005).

Institutional intermediaries enhance firms' credibility by signaling their reputations to a wide range of stakeholders and ecosystem actors, which lowers uncertainty and can impact their transactional costs (Gao et al., 2017, Chen et al.2015, Lin et al. 2020). As essential entities in the business ecosystem, institutional intermediaries bridge institutional voids and facilitate interactions between various stakeholders, fostering business growth and development while mitigating institutional voids (Brix-Asala & Seuring, 2020. , Franczak et al.2023, Rehman et al.2020.). However, they can also hurt the scale-up and innovativeness of firms as linkages provided by institutional intermediaries to firms, especially in developing markets, can lead to the influence of governments on the scale-up of such firms (Cao & Shi, 2021; Yao et al., 2022). Furthermore, institutional intermediaries can hinder the activities of firms and decrease their autonomy as they seek legitimacy and funding for their start-ups (Tian et al., 2021; Yao et al., 2022). Authors further argue that affiliations with institution intermediaries such as associations and networks can limit and negatively affect a firm's innovativeness by creating relationship tensions, opportunistic behaviours and succumbing to biases (Tian et al., 2021; Yao et al., 2022).

Lin et al. (2020)categorizedd intermediaries into two distinct roles while fulfilling their mandate of providing information and certification support. The first role is the bridging function, where intermediaries offer formal and codified information support, including consulting and training, assisting clients in meeting regulatory requirements. The second role, buffering, involves selectively disseminating information, emphasizing positive firm details or downplaying unfavourable elements.

Table 1. Institutional Intermediaries

Types	Definition	Examples	References
Product Intermediaries	They are independent groups or organisations that help move goods and services between businesses (B2B) and companies to consumers (B2C). Product Market intermediaries provide services that help facilitate a product's establishment, maintenance, or expansion. (Bessy & Chauvin, 2013).	Wholesalers, Retailers, Physical distribution and companies, Marketing service agencies, and evaluators	Bessy and Chauvin (2013)
Regulatory Intermediaries	They are players that impact a target directly or indirectly in collaboration with a regulator to affect its behaviour (Abbott et al., 2017; Herman, 2020). They provide valuable feedback to regulators, occupying a central position between regulators and target companies. They also share their views and experience on goals and use their experience to advise regulators on regulatory ambiguities, implementation issues, and potentially more efficient approaches.	For-profit certification companies, accounting firms, credit rating agencies, civil society groups such as NGOs, or governmental bodies, such as trans-governmental agency networks or international organisations.	Abbott et al. (2017); Herman (2020)
Information Intermediaries	An information intermediary is a system or entity that serves as a mediator between information producers and consumers. The primary role of an information intermediary is to gather relevant information and effectively distribute it to its intended audience. The role of an information intermediary entails carefully curating and arranging information based on the specific requirements of its clientele.	Media houses, government publishers, information agencies,	Womack (2002)
Talent Intermediaries	Talent intermediaries are entities or organisations facilitating the connection and interaction between talented individuals (job seekers, professionals, or performers) and potential employers. These intermediaries typically provide talent scouting, management, representation, matching, and development.	Business incubators and accelerators, recruitment agencies, venture capitalists, or Angel Investors	Banerjee and Gupta (2019) Caner and Tyler (2015)
Financial Intermediaries	These intermediaries serve as critical conduits, facilitating the flow of financial resources from surplus to deficit economic units. Moreover, they engage in maturity transformation, effectively managing liquidity to ensure the availability of funds when needed.	Corporate lawyers, hedge fund managers, private equity fund partners, venture capitalists, angels, investment bankers	Yakubu et al. (2021)

Adapted from Khanna and Palepu (1997)

The capacity of entrepreneurs to employ ingenuity and utilise available resources to tackle new challenges and opportunities significantly influences their business outcomes (Baker & Nelson, 2005). Previous research has indicated that bricolage, which creates solutions using whatever resources are at hand, can yield both positive and negative effects (Ciborra, 1996; Baker & Nelson, 2005; Garud & Karnøe, 2003).

Across various studies, adopting bricolage has been identified as a critical factor explaining why some entrepreneurs outperform others in resource-constrained and institutionally void environments (Baker & Nelson, 2005). Since start-ups typically face resource limitations due to their early-stage status and the need for rapid growth, embracing bricolage becomes particularly relevant in improving their chances to scale. The uncertainty exacerbated in the absence of relevant institutions in emerging markets makes bricolage a relevant mechanism for scale-up in this study and an appropriate lens to explore how start-ups leverage this orientation in achieving scale-up.

Funding is a resource-seeking entrepreneurial behaviour embarked on by start-ups to overcome resource constraints and scale their ventures (Busch & Barkema, 2021; Harris & Wonglimpiyarat, 2020). The ability of start-ups to raise funds is crucial to their venture creation activities, survival, and scalability. Given the challenges of traditional funding sources, informal capital from business angels and venture capitalists is an alternative source of raising funds (Carpenter & Petersen, 2002). Several studies have investigated the role of funding in the scalability of start-ups and small-scale businesses and found a positive correlation between funding and the innovative performance of start-ups, a crucial dimension of scale-up (Picken, 2017).

According to Mittal and Madan (2020), financing options available to startups include Angel funding, Bootstrapping, Bank loans, Seed funding or funding from founders friends,

family and Venture capital. The World Bank Enterprise Survey Report highlights access to capital, access to talent, access to infrastructure such as roads and electricity, corruption and institution voids as blockers to the growth of small businesses. Nigeria has been ranked 113th in the Ease of Doing Business report (World Bank Report, 2019). For start-ups in Nigeria to scale, according to the Organisation for Economic Cooperation and Development's definition, they need to leverage certain institutional intermediaries to help them overcome these voids.

2.1.2 Overcoming Institutional Voids through Entrepreneurial Bricolage

Understanding entrepreneurial theory has profound implications for entrepreneurial practice, policy-making, and economic development. By elucidating the mechanisms through which entrepreneurs identify, evaluate, and exploit opportunities, entrepreneurial theory informs the design of effective entrepreneurship education programs, incubation initiatives, and policy interventions to foster an enabling environment for entrepreneurship (Martynyshyn et al., 2022). This study focus on the entrepreneurial bricolage theory to understand how start-ups scale their businesses in environments where institutions are still under development. The entrepreneurial bricolage theory, introduced by Baker and Nelson (2005), posits that entrepreneurs creatively assemble resources to address challenges and seize opportunities, especially in resource-constrained environments (Senyard et al., 2009).

Start-ups, due to their liability of newness and smallness, are confronted with resource scarcity, which can be talent, financial, institutions or material shortages needed for growth and scale-up (Busch & Barkema, 2021); the orientation of making do despite these limitations explain entrepreneurial bricolage.

Earlier research on bricolage has primarily focused on resource scarcity. However, entrepreneurs with nascent ventures irrespective of location have found bricolage behaviour

beneficial in scaling, as it involves creatively and innovatively using available resources (Baker & Nelson, 2005; Senyard et al., 2014). Successful bricolage actions can help develop a business that can navigate market uncertainty, survive, and even thrive in resource scarcity and institutional voids (Baker & Nelson, 2005; Senyard et al., 2009; Simba et al., 2021; Yu et al., 2020).

The core of our argument is that for start-ups to grow in the ecosystem, they need to leverage supporting institutional intermediaries to manage headwinds associated with prevalent institutional voids in their context. This study further argue that an entrepreneurial mindset of improvisation and making do with available resources differentiates start-ups that leverage institutional intermediaries to scale from those that do not.

Hypothesis formulation

There have been several scholarly works on integrating institutions into research on entrepreneurship; however, this research seeks to approach it from the angle of institutional intermediaries, which find more relevance in the context of emerging markets in emerging economies. Furthermore, studies revealed that in emerging markets, institutional arrangements that support markets are either absent or weak, leading to opportunistic behaviour and increased market uncertainty (Cao & Shi, 2021; Easterly, 2006). In this study we introduce a dual-lens in examining scale-up from both input and output variables, thus offering a holistic view of the scale-up construct

Zhang and Li, Hi (2010) allude that firms with close ties with institutional intermediaries are likely to be more effective and efficient operationally via enhanced flexibility, capacity, and speed as they leverage intermediaries' shared resources and expertise. Intermediaries are often leveraged as external institutions for innovation and knowledge expansion as innovation becomes more open source in today's knowledge economy (Lin et al., 2020). We believe that

the presence of institutional intermediaries should catalyse innovative activities among firms.

We, therefore, hypothesize that the use of institutional intermediaries is likely to help start-ups scale up:

H1: Institutional intermediaries positively correlate with start-up scale-up.

Start-ups, due to their liability of newness and smallness, are confronted with resource scarcity, which can be talent, financial, institutions or material shortages needed for growth and scale-up (Busch & Barkema, 2021); the orientation of making do despite these limitations explain entrepreneurial bricolage. Understanding entrepreneurial bricolage has significant implications for start-up strategies, resource management, and ecosystem development (Davidsson et al., 2017). By embracing bricolage, entrepreneurs can navigate uncertainty, leverage limited resources, and foster innovation in their ventures.

The uncertainty exacerbated in the absence of relevant institutions in emerging markets makes bricolage a relevant mechanism for scale-up in this study. Furthermore, this study examines how start-ups leverage this orientation to achieve scale-up by using institutional intermediaries in an institutional void environment and seeks to explore this relationship through the lens of entrepreneurial bricolage.

We Therefore hypothesize that:

H2: Entrepreneurial bricolage mediates the relationship between institutional intermediaries and scale-up

The ability of start-ups to raise funds is crucial to their venture creation activities, survival, and scalability. Given the challenges of traditional funding sources, informal capital from business angels and venture capitalists is an alternative source of raising funds (Carpenter & Petersen, 2002). Several studies Picken (2017) have investigated the role of funding in the

scalability of start-ups and small-scale businesses and found a positive correlation between funding and the innovative performance of start-ups, a crucial dimension of scale-up.

As start-ups strive to expand their market presence, develop innovative products, and attract top talent, securing adequate financial resources becomes paramount. Several scholars have asserted that the ability to attract funding indicates that a start-up is scaling (Crnogaj & Rus, 2023; Konga & Ramaiah, 2021; Spacenco & Mandari, 2018).

We Therefore, hypothesize that:

Hypothesis 3: Fundraising strengthens the relationship between entrepreneurial bricolage and scale-up.

Proposed Model

In the literature review of this research, three hypotheses were derived based on the theoretical backgrounds. This study integrated the three hypotheses to develop a conceptual model (figure 1)

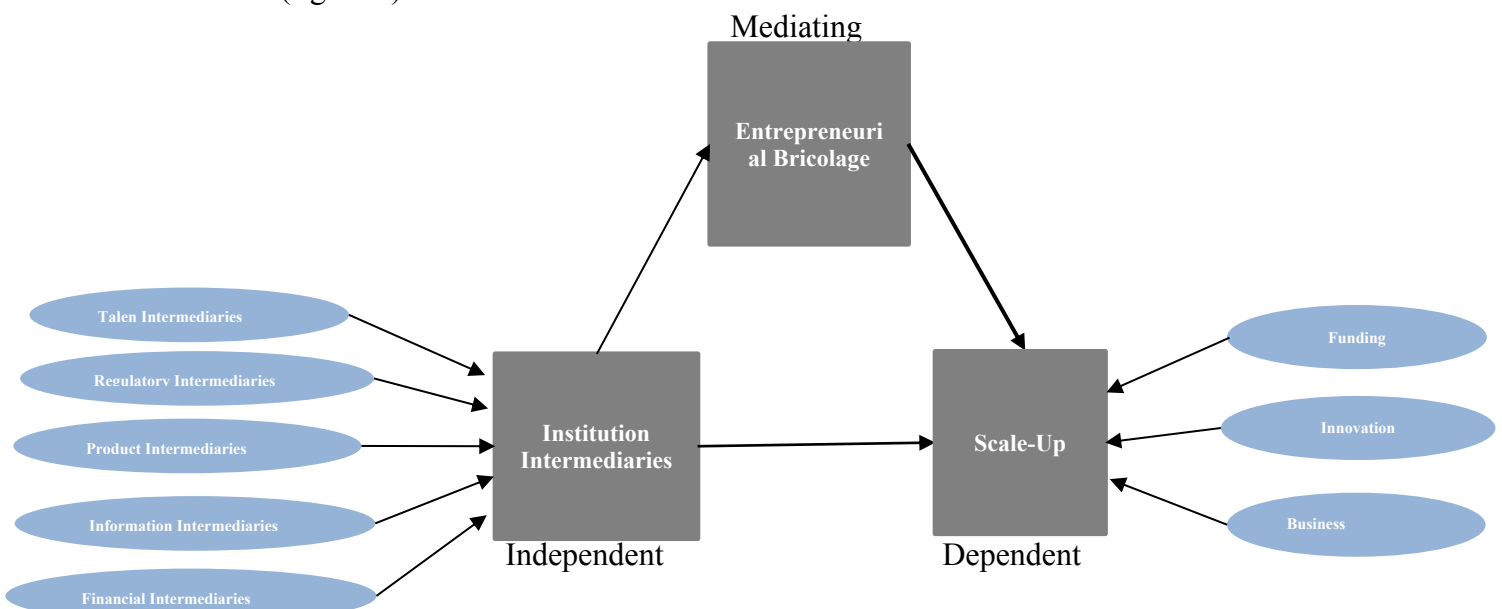


Figure 1: Proposed Model

Methodology

Research Design

This study uses a quantitative approach to investigate the influence of institutional intermediaries on scale up by start-ups. Using a purposive sampling strategy, evidence was gathered through structured surveys from diverse start-up founders and co-founders on their use of improvisation and alternative structures in institutional voids context . The evaluation of scale-up was based on three metrics: fundraising (input), innovation performance, and business performance (outputs) (Busch & Barkema, 2021; Harris & Wonglimpiyarat, 2020; Laursen & Salter, 2006; Paudel, 2020). Furthermore , this study employed quantitative data analysis methods, such as regression analysis and structural equation modelling (SEM), to evaluate the role of institutional intermediaries in impacting start-up growth. This research offers policymakers, investors, and entrepreneurs valuable information to foster start-up growth in comparable contexts.

Study Population

The study population comprises start-up founders and co-founders within the Nigerian entrepreneurial ecosystem identified for its vast population and robust start-up scene (Disrupt Africa, 2022), (Ajah & Ononiwu, 2021). In other validate the survey instrument, a pilot survey was conducted with 32 founders to assess the reliability and validity of the survey instrument. Based on the results, the original 76-item questionnaire was refined to 54 items, incorporating some open-ended questions to enhance the quality of responses.

The final utilized survey for this study's investigation gathered a total of 468 responses, which were subsequently reduced to 400 after data cleaning and the removal of incomplete data. The survey included an electronic informed consent form to ensure the respondents'

participation agreement. The self-administered survey was conducted online using the Qualtrics platform, ensuring complete anonymity for participants. No personal or sensitive information that could identify respondents was collected. The final survey instrument is included in the appendix.

Measurement

Independent Variables

Institutional intermediaries were measured using the institutional intermediary multidimensional scale. Under this scale are five sub-scales measuring five sub-constructs of institutional intermediaries identified as relevant to our study. They include product, regulatory, talent, financial, and information intermediaries' sub-scales. This help provide a robust measure of institutional intermediaries taking into cognizance the interrelationship and complex nature of institutions.

Mediating Variable

Entrepreneurial bricolage was measured with the Entrepreneurial Bricolage Scale. A 5- point Likert scale previously validated with a pilot survey was used. It seeks to explain the mechanism by which institution intermediaries impact start-up scale-up.

Dependent Variable

Scale-Up was measured with a multi-dimensional scale. The scale consists of three subscales: funding, innovation, and business performance. All of the sub-scales were measured with a 5-point Likert scale. The multi-dimensional scale provides an input and output measure of scale-up, thus offering a holistic measure of the concept. We employed a dual lens to view

scale-up, we measure funding as an input factor of scale-up and innovation and business performance as output factors

Results

Demographic Profile

Table 2 describes the respondents' demographic profile. The sample (n=400) collected for the study was 78% male while 22% were female.

Table 2: Demographic profile

Category	Variables	Percentage
Gender Distribution	Male	78%
	Female	22%
Funding Raised	Respondents who have raised funds	77.7%
	Funds raised from formal investors (angel investors, VCs)	42.2%
	Funds sourced from family and friends	35.5%
Education Level	Respondents with a bachelor's degree or a postgraduate degree	89.7%
Prior Work Experience	Respondents with prior work experience before entrepreneurship	70%
Monthly Revenue	Less than \$10,000 USD	78.8%
Access to Funding as a Limiting Factor	Respondents considering access to funding as a major barrier	64.7%
Relevance of Financial Intermediaries	Respondents identifying financial intermediaries as crucial	30%
Industry Distribution	Start-ups in the fintech industry	68%
	Start-ups identified as unicorns (valuation over \$1 billion)	4 start-ups

Analyses of the data from respondents was done using the SPSS and AMOS version 28 tools.

The gender distribution is consistent with available data from previous publications (Disrupt Africa, 2022), highlighting that the start-up ecosystem is male-dominated and explains the under- representation of females in the technology industry. Approximately 77.7% of respondents have raised funds for their ventures. . Funds raised were majorly sourced from family and friends, representing 35.5% of total respondents ,while 64.7% consider access to funding as a limiting factor to scaling up .30% consider financial intermediaries such as angel investors and financial institutions most relevant to their venture scale-up. This highlights the

challenges of attracting funding for scale-up amongst start-ups. These findings reinforce that many start-ups may be necessity entrepreneurs and need help attracting formal funding. Approximately 68% of start-ups are in the fintech industry, representing the sector that accounts for the four start-ups with over 1 billion dollars in valuation (unicorn) in Nigeria.

Validity and Reliability

To ensure the accuracy of the research results, the validity of the questionnaire was evaluated and confirmed through content validity and eyeballing. Furthermore content validity was done by seeking the opinions of professors and experts aware of the subject. Confirmatory factor analysis was also done at the pilot phase on all scales using factor loading to assess cross-loading items. Upon analysis, results were similar to reliability tests. The improved questionnaire was then randomly sampled to the start-up communities in key urban cities in Nigeria. The Cronbach's alpha for the extracted factors was all above 0.7, indicating adequate reliability (Amirrudin et al., 2021) as shown in Table 3. The kurtosis and skewness of the Likert items were analysed, with all items being slightly negatively skewed, running from -0.4 to -0.9, however, entrepreneurial bricolage (EBR1- EBR5) being an exception, with skewness ranging from -1.4 to -1.9 and falls outside the acceptable range of -1 to +1 (Hair et al., 2017). Kurtosis falls within an acceptable range of -3 to +3, except for EBR1, EBR2, EBR3, EBR4 and EBR5, which falls outside the acceptable range (Hair et al., 2017).

Confirmatory factor analysis (CFA) was used to assess further the structure and validity of the factors in this study using a pattern matrix builder in AMOS to produce the measurement model. The model was identified with a model fit $\chi^2 = 0$ and model fit indices of CFI= 1, IFI= 1, RMSEA=0.548, PCLOSE=.000, GFI= 1. The values observed and recommended are for a good model fit (Hu & Bentler, 1999). The Variable inflation factor (VIF) for all the INDEPENDENT VARIABLES was tested simultaneously; the VIF values are as shown in

Table 4;

Table 3. Pearson correlation coefficient , Descriptive statistics and Cronbach Alpha

	M	SD	N	Cronbach Alpha	TI	RI	IFI	PI	FIN	BP	IP	FUN	EBR
TI	3.3808	1.25289	400	.866									
RI	3.4225	1.27325	400	.892	.562** <.001								
IFI	3.5317	1.19224	400	.737	.734** <.001	.870** <.001							
PI	3.4150	1.20289	400	.804	.769** <.001	.889** <.001	.860** <.001						
FI	3.6742	1.10299	400	.837	.515** <.001	.639** <.001	.641** <.001	.627** <.001					
BP	3.5669	.92974	400	.822	.330** <.001	.416** <.001	.383** <.001	.430** <.001	.435** <.001				
IP	3.6113	.90864	400	.763	.413** <.001	.538** <.001	.499** <.001	.527** <.001	.665** <.001	.850** <.001			
FUN	3.6533	1.09978	400	.811	.507** <.001	.637** <.001	.639** <.001	.635** <.001	.930** <.001	.458** <.001	.673** <.001		
EBR	4.3390	.65769	400	.818	.262** <.001	.322** <.001	.310** <.001	.344** <.001	.333** <.001	.382** <.001	.401** <.001	.332** <.001	

Table 4. Variable inflation factor

Variables	Collinearity Tolerance	Statistics VIF
Finance Intermediary	0.537	1.862
Product Intermediary	0.101	9.866
Information Intermediary	0.152	6.592
Regulatory Intermediary	0.104	9.661
Talent Intermediary	0.246	4.060
Entrepreneurial Bricolage	0.859	1.164

a. Dependent Variable: Scale-up.

Convergent validity for the model was analysed using the average variance extracted (AVE) and the item loading value, which is the composite reliability (CR). All items loaded above 0.7 align with this study's reliability test in SPSS, with AVE above 0.5, thus indicating good convergent validity (Hair et al., 2017). The discriminant validity was determined by comparing the AVE to the maximum shared variances (MSV) (Hair et al., 2017). MSV with values lower than the AVE values indicated good discriminant validity for this study model.

Table 4 highlights values for CR, AVE and MSV. Composite Reliability, Average Variance Extracted, and Maximum Shared Variance as shown in table 5 below.

Table 5. Composite Reliability, Average Variance Extracted, and Maximum Shared Variance.

	CR	AVE	MSV	MaxRH	FIN	FUN	IP	EBR	TI	RI	BP
FIN	0.904	0.826	0.496	0.907	0.909						
FUN	0.941	0.762	0.496	0.965	0.704	0.873					
IP	0.880	0.597	0.585	0.895	0.458	0.417	0.773				
EBR	0.826	0.493	0.195	0.847	0.335	0.295	0.383	0.702			
TI	0.867	0.620	0.441	0.870	0.587	0.524	0.396	0.334	0.787		
RI	0.892	0.675	0.441	0.894	0.647	0.644	0.429	0.366	0.664	0.822	
BP	0.913	0.839	0.585	0.914	0.440	0.375	0.765	0.442	0.331	0.456	0.916

Institutional intermediaries and scaling-up

The Pearson correlation coefficient was used to check the linear relationship between Institutional intermediary variables and Scale-up variables. The result shows a positive, statistically significant relationship between all the variables, as represented in Table 4 below: The Cronbach's alpha for the extracted factors was all above 0.7, indicating adequate reliability (Amirrudin et al., 2021) as shown in Table 3. The Adjusted R-squared for the model is .638, with 63.8% of the change in Scale- up by a start-up can be explained by Institutional intermediaries, as shown in Table 6. This relationship is significant from the table of less than .01($p < .001$). Thus, the regression model is statistically significant for start-up scale-up activities.

Model	R	R Squared	Adjusted R Squared	Std.Error of the Estimate
1	.802 ^a	.643	.638	.516

Table 6. Model Summary

a. Predictors: (Constant), FIN, TI, RI, IFI, PI

Structural Model

This study developed a structural model from the proposed conceptual model making use of the variables and analysed the structural model for model fit. The results show an acceptable model fit as shown in table 7 below.

Figure 2: Structural Model.

Table 7: Table showing Hypothetical analysis from Structural Equation Modelling.

Hypothesised Relationships	Standardised Estimates	P-value	t-values	Hypothesis Supported
H1: Institutional intermediaries positively correlate with start-up scale-up	0.697	<.001	19.437	Supported
Squared Multiple Correlation (R^2)				
Entrepreneurial Bricolage	.141			
Scale-up	.663			
Model Statistics: $\chi^2(0) = 0$, PClose = 000, CFI=1, IFI= 1, RMSEA=0.548				

Control Variable

Founder age was used as a control for this study. The study consider that founders' age confers experience, affecting entrepreneurs' ability to scale, improvise, and leverage institutional intermediaries to scale their ventures.

Table 8 shows Founder age as the control variable on the dependent variable.

Relationship of control with DVs	Standardised Estimate	t-values	Pvalue
Founder age on scale-up	-0.084	-1.849	0.064
Founders Age on Entrepreneurial Bricolage	0.028	0.590	0.555

The study model evaluates the impact of institutional intermediaries on both scale-up and entrepreneurial bricolage, and the direct and interaction effects are reported below.

Interaction effects

Entrepreneurial bricolage shows a significant positive relationship with Institutional Intermediaries ($\beta = 0.3570$, $p < 0.0001$), indicating that Entrepreneurial bricolage also increases as institutional intermediaries increase. The R-squared value suggests that approximately 12.75% of the variance in Entrepreneurial bricolage can be explained by Institutional intermediaries.

The results show a significant positive relationship between Institutional Intermediaries and Scale-up ($\beta = 0.6974$, $p < 0.0001$). Furthermore, the analysis assesses the indirect effect of institutional intermediary on SCALE-UP through entrepreneurial bricolage, showing a positive indirect effect ($\beta = 0.0572$, BootSE = 0.0169, BootLLCI = 0.0268, BootULCI = 0.0924).

Scale-up in this study model has two predictors: Institutional intermediaries and Entrepreneurial bricolage. Both predictors exhibit significant positive relationships with Scale-up. Institutional intermediaries have a stronger impact on Scale-up ($\beta = 0.6268$, $p < 0.0001$) when compared to Entrepreneurial bricolage ($\beta = 0.1978$, $p < 0.0001$). The R-squared value indicates that approximately 52% of the variance in Scale-up can be explained by the combination of institutional intermediaries and Entrepreneurial bricolage.

This study's analysis results suggest that Institutional intermediaries and Entrepreneurial bricolage play crucial roles in predicting Scale-up, with Institutional Intermediaries having a stronger direct effect. Furthermore, there is evidence of an indirect effect of Institutional intermediaries on Scale-up through Entrepreneurial bricolage. Similarly, this study's results show a partial mediation by entrepreneurial bricolage between institution intermediaries and scale-up, with significant direct and indirect effects. However, although the mediation on

talent intermediaries has both positive direct and indirect effects, the indirect effect is not significant, as highlighted in Table 9 below

Table 9: Table showing mediation of EBR.

Relationship			Direct Effect	Indirect Effect	Conclusion
H2:	Entrepreneurial	bricolage	0.627***	.057***	Partial mediation, hypothesis supported
mediates the relationship between institutional intermediaries and scale-up					

Note: Indirect effect estimates used are unstandardized results.

This result supports the Hypothesis H2, which states that Entrepreneurial bricolage mediates the relationship between institutional intermediaries and scale-up, such that start-ups that practice bricolage to leverage institutional intermediaries positively scale up.

Multi-group analysis

Multi-group analysis was conducted using entrepreneurs who have raised external funds and those who have not. In this analysis, we seek to check the impact of entrepreneurial bricolage on scale-up between entrepreneurs who have raised funds and those who have not. The study analysed this path in the structural model by evaluating the Chi-square difference between the two groups, highlighting the significance level. The result is 1df constrained at 0.154 at a significance level of 0.695, thus highlighting no significant difference in the impact of entrepreneurial bricolage on a scale between the two groups, although entrepreneurial bricolage impacts more on entrepreneurs who have raised funds than those that have not, as highlighted in the table10 below.

Table 10. Table showing multi-group analysis.

Hypothesis relationship	Not raised funds Standardised estimates (t-values)	Raised Funds Standardised estimates(tvalues)	Group differences
H3 : Entrepreneurial bricolage has a direct effect on scaleup	0.404*** (4.137)	0.427*** (8.310)	Change X^2/df $X^2(1)= 0.154$ n.s.

Table 11. Hypothesis summary table

Hypothesis	P-value	Hypothesis Supported
Direct Effects		
H1: Institution intermediaries will have a positive effect on scale-up by start-ups	0.627***	Yes
Indirect Effects		
H2: Entrepreneurial bricolage will positively mediate the effect of institutional intermediaries on the scale-up of start-ups	Direct: 0.0627*** Indirect: 0.057***	Yes Partial mediation significant
Interaction effects		
Multi-group Interaction Effect		
H3. The positive relationship between entrepreneurial bricolage and scale-up will be stronger for start-ups that have raised funds than those that have not.	not raised funds 0.404*** Raised funds 0.427*** $X^2(1)= 0.154$	Yes , stronger for those that have raised funds

Note:*** indicates a significance level of $p < .005$, figures are for Regression weights

In summary, Squared Multiple Correlation (R^2) model explains a substantial proportion of variance in both entrepreneurial bricolage ($R^2 = 0.141$) and start-up scale-up ($R^2 = 0.663$). This indicates that the included factors collectively account for a significant portion of the variability in these outcomes. The squared multiple correlation (R^2) values for entrepreneurial bricolage and start-up scale-up indicate a substantial proportion of variance the model explains. While the RMSEA value may seem relatively high, the overall fit statistics (X^2 , PClose, CFI, IFI) suggest a robust model fit, enhancing confidence in the reliability of the findings. The Chi-Square Test (X^2) indicates a good fit for the model, with a non-significant value ($X^2 = 0$), suggesting that the model fits the data well. The p-value associated with the X^2 test is extremely low ($p < .000$), further supporting the adequacy of the model fit. CFI and IFI: The Comparative Fit Index (CFI) and Incremental Fit Index (IFI) have perfect scores 1, indicating an excellent fit between the model and the observed data. RMSEA: While the Root

Mean Square Error of Approximation (RMSEA) value of 0.548 seems high, it's important to note that RMSEA's performance can be influenced by sample size and model complexity. Since the other fit indices are excellent, the overall model fit appears to be acceptable.

Discussion

The key constructs of this study supports existing literature pinpointing critical institutional voids in countries like Nigeria (Adomako et al., 2021; Pindado et al., 2023; Yildirim et al., 2022; Zhang & Li, 2010). Utilising a combination of institutional intermediaries as independent variables identified by literature as relevant institutional structures for market-making activities provided a broader measure of the impact of supporting institutions beyond what incubators and accelerators offer startups. As hypothesized, institutional intermediaries impact the scale-up of start-ups positively .

The adoption of a multi-dimensional measure for scale-up as an outcome variable brings a novel perspective to this study of firm performance. By employing a dual lens, incorporating input and output measures of fundraising, business performance, and innovation performance, our study offers a more comprehensive understanding of scale-up beyond conventional performance metrics. This approach allows for an assessment of a firm's current growth, future growth potential, and the validation of its business model by external stakeholders.

Furthermore, this methodology introduces a fresh perspective for evaluating the valuation and progress made by start-ups, extending beyond the traditional focus of fundraising rounds to critically considering firms' current and future performance. Furthermore we present a

comprehensive structural model evaluating various intermediaries' impact on the scale-up of start-ups.

On institutional Intermediaries: The study finds a significant positive impact (standardized estimate = 0.697, $p < .001$) of institutional intermediaries on start-up scale-up. This indicates that institutional support plays a crucial role in fostering the growth of start-ups. The impact of institutional intermediaries was very significant on scale-up as evidenced in the regression analysis, which highlights the extent of change that institution intermediaries contribute to scale-up effect in start-ups. This supports our arguments that in the absence of supporting institutional frameworks that help lower the uncertainties and cost of doing business, institution intermediaries can likely fill the void and support venture scaling.

While institutional intermediaries are often perceived as supportive of start-up growth, some research suggests that excessive bureaucracy and regulatory burdens imposed by certain institutions can hinder entrepreneurial endeavors. For instance, Parker, 2018, found that complex regulatory frameworks in some countries create barriers to entry for start-ups, stifling innovation and hindering scale-up efforts.

Similarly, talent intermediaries exhibit a substantial positive influence (estimate = 0.482, $p < .001$) on start-up scale-up. This suggests that access to skilled personnel or talent networks is vital for start-ups to expand. The findings indicating the positive influence of talent intermediaries on start-up scale-up are corroborated by research. For instance, Sorensen & Stuart, 2000, found that access to skilled labor through networks, educational institutions, and talent agencies significantly enhances start-ups' ability to innovate and expand. While access to skilled talent is crucial for start-up success, it's worth noting that talent intermediaries may not always guarantee the desired outcomes. Gompers et al., 2016, argue that the "war for talent" in competitive ecosystems can drive up labor costs for start-ups, impacting their financial viability and ability to scale efficiently.

Financial intermediaries demonstrate the strongest impact (estimate = 0.785, $p < .001$) on start-up scale-up among all factors considered. This underscores the critical role of financial resources and support in facilitating start-up growth. Similarly, many respondents identified financial intermediaries as most relevant to their scale-up activities. This can be attributed to the Nigerian financial sector possessing the most significant number and diversity of financial intermediaries compared to other economic sectors. Given its extensive connections to the global financial market and the imperative to meet international financial standards, it stands out as the most regulated sector in the economy (Kola-Oyeneyin et al., 2020; Puja, 2023).

The study supports the relevance of institutional intermediaries as supporting structures for venture scaling in an institution-void context, as exhibited by the number of start-ups who have scaled being dominated by the fintech start-ups in Nigeria; (Lee & Amabo, 2021; Puja, 2023).

Scholars Jeong et al. (2020) and Lee and Amabo (2021) emphasizes the critical role of venture capital firms, angel investors, and financial institutions in providing start-ups with capital, expertise, and networking opportunities crucial for scaling their operations. However, Hellmann and Puri (2002) suggests that the pressure to meet investors' expectations can sometimes lead to short-term decision-making and neglect of long-term sustainability goals, potentially undermining the growth prospects of start-ups.

Regulatory intermediaries also show a significant positive effect (estimate = 0.613, $p < .001$) on start-up scale-up. This implies that supportive regulatory frameworks and compliance assistance contribute to start-up expansion. The significant positive effect of regulatory intermediaries on start-up scale-up is consistent with prior research by Acs and Audretsch (1990) which underscored the importance of supportive regulatory environments and government policies in facilitating start-up growth by reducing barriers to entry, streamlining bureaucratic processes, and incentivizing innovation. While supportive regulatory

environments can facilitate start-up growth, conflicting regulations and unclear legal frameworks may pose significant challenges. Scholars such as Daradkeh (2023) highlight the negative impact of regulatory uncertainty on entrepreneurial activity, as start-ups may face difficulties navigating complex compliance requirements and adapting to evolving regulatory landscapes (Minniti & Bygrave, 2001).

This study reveals a noteworthy positive impact (estimate = 0.588, $p < .001$) of information intermediaries on start-up scale-up. Access to relevant information and knowledge networks aids in overcoming challenges and seizing growth opportunities. The findings highlighting the positive impact of information intermediaries on start-up scale-up resonate with existing literature. Research by scholars emphasizes the role of knowledge networks, mentorship programs, and information sharing platforms in providing start-ups with valuable insights, market intelligence, and strategic guidance essential for scaling their operations (Shane & Stuart, 2002). While information intermediaries play a vital role in providing start-ups with valuable insights and resources, it's important to recognize the limitations of information asymmetry. Despite access to information networks, start-ups may struggle to translate knowledge into actionable strategies, particularly in rapidly changing markets or industries (Ozmel et al., 2020; Peng & Lucena, 2023; Stuart et al., 1999; Torino & Gurrieri, 2024).

Product intermediaries positively influence start-up scale-up (estimate = 0.613, $p < .001$) on start-up scale-up. The substantial positive influence of product intermediaries on start-up scale-up aligns with prior research. For example, Chesbrough, 2003 emphasized the significance of strategic partnerships, distribution channels, and collaborative ecosystems in enabling start-ups to leverage complementary resources, access new markets, and accelerate their growth trajectory. While partnerships and distribution channels facilitated by product intermediaries can accelerate start-up growth, there's a risk of over-reliance on external dependencies. Gawer & Cusumano, 2008 caution that start-ups heavily reliant on

partnerships or ecosystem platforms may face vulnerabilities if these intermediaries undergo changes or disruptions, potentially impeding their scale-up efforts.

. These findings support our claim that robust institutional intermediaries in developing countries contribute to the accelerated scaling of startup ventures.

In the context of developing countries, our position that entrepreneurial bricolage will support the attempts of start-ups to scale was supported; we consider bricolage as an appropriate lens as it focuses on the actions of practicing entrepreneurs and not the entrepreneurial intention as proposed by other theories in the entrepreneurship literature. The prevalence of a culture of improvisation, as exemplified by bricolage, in resource and institution-constrained environments typical of developing countries validates our hypothesis. Founders' demonstration of entrepreneurial bricolage contributes to their ability to improvise and seek institutional intermediaries in a bid to grow and scale their ventures. This is also typical of opportunity-seeking entrepreneurs, who must remain proactive, innovative and risk-takers to stay in business (Russo et al., 2014). However, the results show that entrepreneurial bricolage partially mediates the impact of institution intermediaries on the scale-up efforts of start-ups. It can be inferred that while it can be a mechanism that explains this relationship, start-ups can scale up with the support of institution intermediaries in the absence of bricolage.

This studies findings show that entrepreneurial bricolage mediates the relationship between institutional intermediaries and the scale-up of firms when we surveyed 400 founders and co-founders in Nigeria. This study offers a new lens in the evaluation of scale-up challenges of start-ups. It justifies the need for policymakers to establish, strengthen, and legitimize institutional intermediaries. This study further supports the comprehensive approach of viewing start-up scale-up and development by business managers and venture builders beyond the ability of firms to raise funds.

Study Implications:

- These findings underscore the multifaceted nature of support mechanisms that contribute to start-up growth.
- Policymakers, investors, and ecosystem builders should consider the holistic support ecosystem comprising institutional, financial, regulatory, talent, information, and product intermediaries to foster a conducive environment for start-up scale-up.
- While the model fit statistics indicate a satisfactory fit, it's essential to consider the limitations of fit indices in capturing the complexity of entrepreneurial phenomena. Scholars Hair et al., (2017) emphasize the importance of complementing statistical model fit assessments with qualitative insights and contextual understanding to gain a comprehensive understanding of the underlying dynamics shaping start-up scale-up

Study Limitation and Future Research

One of the limitations of this research is that it could not gain deeper insights into how different entrepreneurs leverage each type of institutional intermediary. A triangulation method (quantitative and qualitative method) would have enhanced the validity and reliability of the study by corroborating and converging evidence from multiple perspectives. This would help strengthen the overall research findings and enhance the study's credibility. While study tried to address this limitation by adding some open-ended questions to the survey to gain more insight into the research question, this was not sufficient enough to address this limitation,

Another limitation of this research is that responses are self-reported, introducing potential biases and challenges in data accuracy and reliability. Participants may be inclined to provide socially acceptable or expected responses rather than accurately reflecting their experiences or behaviours. Tourangeau and Yan (2007) discuss the challenges associated with memory recall and the impact of question-wording on survey responses. Similarly, Podsakoff et al.

(2003) emphasise the need for caution when interpreting self-reported data due to issues of standard method variance and shared method variance (Giromini et al., 2022; Speklé & Widener, 2018).

Future research could explore the interplay between these intermediaries and other contextual factors to further enhance our understanding of start-up growth dynamics. Also, Future research could further investigate the nuanced interactions between these intermediaries and their differential impact across various industry sectors, geographical regions, and stages of start-up development. Additionally, longitudinal studies could provide valuable insights into the dynamic evolution of intermediary ecosystems and their evolving influence on start-up scale-up over time.

Conclusion and Policy Recommendations

By incorporating entrepreneurial bricolage into this study, it seek to understand the mechanism by which institutional intermediaries affect scale-up. This model also provides a novel approach to combine an individual-centric approach via entrepreneurial bricolage and an environmental-centric approach via institution intermediaries to understand start-up scaling in this context. The effect of entrepreneurial bricolage as a mechanism to explain the effect of institution intermediary on scale-up was partially mediated . This highlights that these intermediaries will positively impact the scale-up attempts of start-ups in this study, even without improvisation or entrepreneurial bricolage. Furthermore, the positive impact of entrepreneurial bricolage on the scale-up of start-ups was strengthened by the firm having raised funds for its activities in the past. This highlights the importance of funding in the attempts of start-ups to leverage entrepreneurial bricolage to scale their ventures and its relevance for start-up scale-up in institutional voids environment as seen in emerging markets.

Several scholars have explored the concept of institutional intermediaries and their role in mitigating the effect of institutional voids on small firms in emerging markets through the provision of crucial support services such as mentorship, networking opportunities, and access to funding. However, most research has focused on SMEs and MSMEs, which is one of the gaps this research fills by looking at the peculiarity of institutional voids in start-ups because they have the potential for exponential growth. This study also coherently identified and analysed some classes of institutional intermediaries and how they impact the scale-up activities of start-ups in Nigeria. The study found that in the absence of supporting institutions that support market development, institution intermediaries can help fill the gap and facilitate the scale-up of start-ups by entrepreneurs. Furthermore, an attitude of improvisation and make-do can be beneficial. These findings underscore the multidimensional nature of support mechanisms critical for start-up scale-up.

Through the lens of entrepreneurial bricolage and institutional theory, this study explained the interactions between entrepreneurs' willingness and capability to leverage institutional intermediaries to reduce the impact of institutional voids on their start-ups to scale. The findings suggest policymakers and developmental organisations should prioritise strengthening and legitimising organisations capable of acting as institutional intermediaries to scale startups in emerging countries.

In conclusion, this research contributes valuable insights to the burgeoning field of entrepreneurial studies, shedding light on the intricate network of intermediaries shaping the growth trajectories of start-ups and informing evidence-based strategies for fostering vibrant and resilient entrepreneurial ecosystems.

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