

A Tale of Two: How Network Agency Influences Network Creation for Start-ups

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Abstract: There is an existing consensus that networks positively impact start-ups. New ventures gain access to market information, funding, emotional support and improved legitimacy from networking. However, existing efforts at articulating network creation and impact on new ventures are skewed due to a strong focus on structural properties. Although these properties contribute to understanding network creation and impact, they often ignore the individual who is either a network beneficiary or broker. This study examines the role of the network actor's agency in entrepreneurial network creation. Understanding agency is critical for explaining how individuals make sense of network opportunities available within their context. Network agency reveals how entrepreneurial networks are created, what influences actor motives and behaviour, and the brokerage methods adopted to meet these motives.

This study explores network agency in two contexts: the interventionist incubator context and the location-induced cluster context. The Lagos Technology Ecosystem comprised of different incubator models and cluster is examined. 31 semi-structured interviews with start-ups from both contexts were conducted to get a nuanced view of how the context influences entrepreneurs' network agency. This paper reveals that network motives like personality, reciprocity, and legitimacy as the main motives for tenant firms to engage in network activities. Conversely, cluster firms listed trust, and the need to access knowledge, information and opportunity as key reasons for engaging in network action. In both contexts, direct and indirect brokerage is utilised to meet the motives triggered. However, the dynamics and nature of these brokerage methods are different across the two contexts. Tenant firms demonstrate a tertius iugnes behaviour, while cluster firms demonstrate separation behaviour.

Keywords: Social Network, Agency, Entrepreneurial Networking, Networks, Lagos

1. Entrepreneurial Network and Networking Impact

Networks act as stimulants to the entrepreneurial process, as it allows entrepreneurs to obtain information and resources needed for battling business uncertainties (Chell and Baines, 2000). Additionally, Witt (2007) views that existing network studies hypothesize a positive relationship between networking and entrepreneurs. Therefore, there is a need to account for why individuals and groups enact certain networks. This will account for how and why the structure and processes of embeddedness affect entrepreneurs, and how this contributes to variations in the form of entrepreneurship generated (Slotte-Kock and Coviello, 2010; Mckveer, Anderson and Jack, 2014). Recognising the importance of these relationships in shaping organizational behaviour and firm performance, studies seem conflicted on how individuals make decisions; whether it is done independent of network structures or embedded within the dynamics of the network structure (Tasselli and Kilduff, 2019). This paper joins the emerging network agency discussion, exploring how individuals leverage network agency in creating and making decisions independent of their network structures. Agentic tools like network motivation and brokerage are used to understand how entrepreneurial networking is created within the entrepreneurial context of business incubators and enterprise clusters.

Studies like Kidluff and Brass (2010) and Tasselli et al. (2015) argue that the exclusion of individuals from social network research has never made sense, as researchers tend to treat network structures as given, and therefore pay less attention to how actors create, perpetuate and modify network structures through their actions (Gulati and Srivastava, 2012). According to Tasselli and Kidluff (2021), relying on the structural approach to networking and network creation ignores the importance of individual volition and action in network processes. Therefore, Emirbayer and Mische (1998) argue that empirical network studies continue to privilege network structure over network action initiators. They add that even when the individual's role is noted, it is often under-theorized. Equally, structuralist perspectives on network creation and impact have yielded conflicting findings, as attempts have been made to validate the impact of structural holes and closure; see studies like Kidluff and Oh (2006); Semrau and Werner (2013); Redlich et al. (2013) and Kreiser (2011). A plausible explanation for these varied views is provided by Jack et al. (2010) study, which opines that networking and networks exist as dynamic endeavours and relationships that could induce various changes within the network creation process. Hence, compositional ties that might be useful at one point might not be later. This focus on network structural attributes relegates the individuals at the centre of the network creation process to passive agents, even though the networks created, and the resulting network structures are functions of individual choices and needs (Willer

and Willer, 2000). Following these observations, numerous calls have been made to account for network agency in network creation (Emirbayer and Goodwin 1994; Baum and Rowley, 2008 and Kidluff and Brass, 2010).

Building on the emerging network agency debates and the need to expand entrepreneurial networking studies, this study investigates how human motives, network behaviour and brokerage methods expand understanding of network agency within entrepreneurial networking creation. Entrepreneurship does not occur by accident or in isolation but is conditioned by existing social relations embedded within a social context (Young, 1998). Therefore, this study investigates the social context that influences entrepreneurial networking in the Lagos Technology Ecosystem in Nigeria. This spans the Ikoyi, Yaba and Ikeja axis, home to several business incubators and the Otigba Computer Village Cluster, one of the largest commercial hubs in West Africa. In this study, the network "why" and "how" is explored to understand how entrepreneurs in these locations make sense of the entrepreneurial network opportunities available and how they engage with them. Consequently, this paper would first provide a background to the discussion on network agency by summarising the existing perception of network agency. The second section discusses agentic tools such as motivation and brokerage as well as the impact they have on entrepreneurial networking. The third section covers the methodology, while the last section presents the discussion and findings of the network creation process in two locations.

2. What We Know So far about Agency

This section provides a brief overview of ongoing conversations about network agency. It will then discuss the alternative agency approach to entrepreneurial network creation. Porter and Woo (2015) define network action as rational efforts motivated by interpersonal exchanges aimed at gaining and maintaining relationships with specific contacts to access specific interpersonal resources. Human action as noted by Emirbayer & Goodwin (1994) is intentional, creative, and instrumental to creating powerful social networks. For this reason, understanding why actions are triggered and how network opportunities are leveraged requires understanding network agency within network creation. However, Emirbayer and Mische (1998) point out that network agency remains elusive, vague, and rarely invokes systematic analysis. Kilduff and Tsai (2003) and later Tasselli and Kilduff (2021) attribute this to an emphasis on the composition, function and consequence of network structures and less on individual attributes, motives and dispositions.

Although this study does not examine all perceptions of network agency, it is prudent to present the prevailing arguments. Tasselli and Kilduff (2021) identify four schools of thought influencing network agency conversations. They include social psychology, anthropology, sociology and the modern schools. Pivotal contributions within the social psychology school are influenced by the works of Jacob Moreno identified as the founder of sociometry (Burt, Kilduff and Tasselli, 2013) and Kurt Lewin on interaction patterns (Tasselli and Kilduff, 2021). Moreno's 1936 study used sociometry and structural properties to explain runaways within a school. Moreno attributed runaways to the girls' position in the network structure. While Moreno reviewed the position on network structure, Lewin advocated for the examination of patterns of interaction between the individual and the social field in which the individual is located (Tasselli and Kilduff, 2021). The anthropology school, on the other hand, focused on network cognition. Brand (2013) notes that cognition is useful in describing the patterns of interactions perceived by individuals and the subjective experiences of their social worlds. Some notable works include Bott's (1957) on how social interaction shapes gender roles. However, Bandura (1986) asserts that for agency to shape behaviour or social action or interaction, it is imperative to account for triadic reciprocal causation, that is the relationship between motivation, action and environmental events. This is because individuals are not autonomous agents or simply mechanical conveyors of animating environmental influences (Bandura, 1986). The sociology school focused on network brokerage. Tasselli and Kilduff (2021) spotlight works from the sociological school, referencing George Simmel's (1950) "tertius gaudens" broker as one who tries to prevent interaction with others to maintain supreme advantage from others' disconnection. A tertius gaudens broker achieves this through taking advantage of the ongoing conflict between the other side parties, or in some instances pitting one side against another to take advantage of opportunities the other parties ignore (Stovel and Shaw, 2012). Tasselli and Kilduff (2021) argue that agency within the sociological school is focused on network structure and negates the individual who is the source of action. As a result, this study advocates for a different route to studying network brokerage, by paying attention to the brokerage process and network behaviour. More coverage of network brokerage actions is reviewed in the next section. The last school presented by Tasselli and Kilduff (2021) is the modern school that again advocates the need to bring the "person back in". However, they note that there exists an unsatisfactory dualism between individuality (motivation from within) and other external pull factors.

The ongoing debate about network agency points to network structure overreliance. However, some attempts have been made to provide an alternative insight into network agency, for example, Gulati and Srivastava's (2012) work on constrained agency and Engel, Kaandorp and Elfring 's (2017) work on the dynamic model of entrepreneurial networking under uncertainty. However, while both works acknowledge the intentional and purposive entrepreneur, they both fail to account for how the network context could trigger network structure changes, or how different network motivation, behaviour and brokerage methods can aid an actor to make sense of network opportunities they may engage in or choose to ignore. Unfortunately, Gulati and Srivastava's (2012) work succumbed to structure pressure by arguing that network structure influences actors' actions and motivation. While Engel, Kaandorp and Elfring (2017) argue that network agency is constrained by uncertainty. Both studies ignore the contextual influence on the individual actor. They also ignore how network actors within a context determine what is perceived as uncertainty or how motivation is triggered or acted upon. This creates an urgency to explore agency from an individual and context perspective. The next section investigates how an individual's network motivation, network brokerage, and behaviour act as agentic tools to trigger entrepreneurial network activity.

2.1 An Alternative Approach to Agency within Entrepreneurial Network Creation

Engel, Kaandorp and Elfring (2017) affirm the notion that entrepreneurs shape their networks to create and discover opportunities for resource mobilization and inter-organizational partnerships. However, they argue that prevailing entrepreneurial studies paint an image of entrepreneurs as heroic network architects. These entrepreneurs search for, plan for, and pursue contact with the right people. In their view, this narrative is incomplete, as it suggests that network actions and network ties are predetermined in advance. They advocate for creating an agency model that accounts for altruism, pre-commitment, serendipity, and co-creation in understanding network agency. While these factors might help improve understanding of agency, the reflective and purposeful entrepreneur should not be ignored, since they account for the endogenous factors that lead to entrepreneurial network action. This paper explores how sense-making in the network creation process is used to explain network agency, by exploring the role of motive, brokerage behaviour and brokerage method in the entrepreneurial network creation process. In this study, the specific individual network, also described as the ego network by Burt, Kilduff, and Tasselli (2012) and Borgatti and Foster (2003), is the main focus.

Casciaro et al (2015) define motivation as the choice of goals to pursue. It is the amount of energy directed at these goals, and the amount of time spent achieving or pursuing these goals (Casciaro et al., 2015). Additionally, several studies agree that goals trigger participants to establish or maintain networks or seek returns for participating (Burt, 1992; Westlund and Nilsson, 2005). In the case of entrepreneurs who are identified as reflective agents that are intentional about the thoughtful creation of relationships (Vissa, 2012), research focused on entrepreneurial networking must take into account the needs and expectations of entrepreneurs to understand their motivations for engaging in networks (Lockett, Jack and Larty, 2013). Hence, Gulati and Srivastava (2012) view network motivation as how actors are empowered to exert agency to achieve network aims. Thus, this paper argues that understanding network motives is essential to understanding network behaviour or why certain brokerage methods are used to achieve said motives. However, Reinholt, Pedersen and Foss (2011) note that existing network research describes network motivation in a limited way and treats it as a unitary concept. Other studies like (Shaw, 2006; Westaby, 2012; Zahra, Wright and Abdelgawad, 2014) call for a deeper investigation of participants' network motivation, as it is useful in understanding how network behaviours are enacted. Oliver's (1990) critical contingency proposition is the earliest comprehensive study of network motivation. Oliver cites necessity, asymmetry, reciprocity, efficiency, stability, and legitimacy as factors that motivate organizations to have relationships with each other. Critical contingency theory has been applied to studies of network motivation, especially from an entrepreneurial standpoint. These include Cooper, Hamel and Connaughton (2010) who examined the role of legitimacy and reciprocity but identified it as information sharing, capability building and shared experience. Shaw (2006) identified bartering and exchange as a network motivation condition, similar to reciprocity. Oliver's contingencies are used in this paper to explore network motivation from an ego network perspective.

To summarise, the first motive, identified as necessity reflects the need to fulfil an action prompted by a policy or regulation compulsion. Asymmetry, on the other hand, is a network motive triggered by a desire to exert power or control, particularly when resources are limited. In addition to asymmetry and necessity, Oliver (1990) describes reciprocity as the ability to collaborate, coordinate, and cooperate to achieve a common goal for an expected return. As the name implies, efficiency is the process of optimizing input-output ratios or optimizing resources to the maximum. Stability contingency is described as the motivation to form relationships in response

to market uncertainties, caused by resource deficits or limited knowledge of market fluctuations (Oliver, 1990). Lastly, legitimacy refers to the need to enhance an institution's reputation, image, or prestige in accordance with prevailing standards. Exploring these different motives highlighted is useful for explaining why network action is triggered in the first place. However, to understand how these triggered motives are achieved, attention moves to the "how", where network brokerage and behaviour are reviewed.

Halvey, Halali, and Zlatev (2018) describe the network broker as an intermediary that connects (either directly or indirectly) two disconnected alters. As an intermediary, the broker is a dynamic coordinator responsible for creating knowledge value and information transfer, a role that addresses market imperfections by linking actors who would not necessarily have connected (Quintane et al. 2012). However, Obstfeld, Borgatti and Davis (2014) assert that brokerage is not just about bringing parties together; it is also an opportunity for exploring how networks between intra and inter-organizational entities evolve and expand. In discussing network brokerage, Grosser et al. (2019) argues for the need to understand brokerage behaviour, as network actors demonstrate multi-actor behaviours to seek out advantages and explain network experiences. Consequently, several studies (Obstfeld, Borgatti and Davis, 2014; Quintane and Carnabuci, 2016; Obstfeld, 2017; Grosser et al. 2019) all capture varied insights into brokerage behaviour and explain how the behaviours identified enhance the mobilization of resources and opportunities. The different brokerage behaviours captured include 'Tertius lungens', 'Tertius Gaudens', 'Conduit Brokerage' and 'Separation Brokerage' behaviour. For detailed coverage, please review the studies highlighted. For a quick summary, the 'Tertius lungens' broker facilitates introductions between individuals within an individual's social network (Obstfeld, 2005; Obstfeld, Borgatti and Davis, 2014). This introduction brings together individuals to foster collaboration and ease coordination between different networks (Ottani, 2016). In contrast, Tertius Gaudens' broker promotes disunity within the network. This broker is self-seeking and thrives on unfamiliarity, competition and conflict between parties for their own gain (Obstfeld, Borgatti and Davis, 2014). The 'Conduit broker' also identified as a mediator attempts to pass information between network groups without changing the relationships between alters (Obstfeld, Borgatti and Davis, 2014; Grosser et al., 2019). Finally, the separation broker seeks to separate alters when they are at risk of losing their position as a middleman in a network. They will prevent alters from getting to know each other so that they can secure control in a network (Grosser et al., 2019). A network actor that demonstrates separation behaviour charges rents or gains status by conveying information between two parties unknown to each other and prevents a coalition from forming against him or her (Grosser et al., 2019).

Entrepreneurial networking involves creating, shaping and reshaping network ties. This process could include tie formation, utilisation and evolving behaviours, networking styles, strategies or processes (Bensaou et al., 2014; Porter and Woo, 2015). For the entrepreneur, a dominant network behaviour can precede or intertwine with every aspect of the entrepreneurial process. This includes idea generation to resource acquisition, team formation, production and execution (Porter and Woo, 2015). As such the entrepreneur can adapt particular network behaviour to get through a particular process or achieve a goal triggered by a motive (Engel, Kaandorp and Elfring, 2017). This paper adds that network behaviour provides an appreciation for network evolution. Which accounts for how an entrepreneur utilises dominant ties or mixed ties as they achieve different milestones or evolve as a business. However, existing studies remain unclear about the actual brokerage process that takes place to facilitate network access. Some network behaviour studies describe network processes and behaviour as the same (Spiro, Acton and Butts, 2013; Soda, Tortoriello and Iorio, 2018). This conflated thinking makes it difficult to differentiate between network behaviour and process. Hence, sense-making will not be complete if the brokerage method used by the entrepreneur is not addressed.

As this study explores entrepreneurial networking mechanisms in two entrepreneurial contexts, it briefly examines network brokerage methods discussed in extant studies. Brokerage takes place through direct or indirect mediation between actors in the incubator micro-net, macro-net, and meso-net (Pettersen et al., 2015; Cantu, 2017; Shih and Aaboben, 2019). Incubator micro-network actors are those with whom the incubator has developed relationships over time. Meso-nets include local actors within the incubator's network, while macro-nets represent national and international actors who are within the incubator's network but do not necessarily interact (Cantu, 2017). Direct mediation relies on incubator management's active participation in building relationships with network partners (Shih and Aaboben, 2019). In this case, the incubator facilitates networking activities, such as conferences, workshops, pitch competitions, and face-to-face meetings, or provides referrals to incubating firms (Sa and Lee, 2012; Cantu, 2017; Shih and Aaboben, 2019). Conversely, indirect mediation doesn't require incubator management's active participation but rather facilitates it through proximity to network partners, the brand name of the incubator, incubation space or location or previous relationships with network actors (Sa and Lee, 2012; Pettersen et al., 2015; Shih and Aaboben, 2019). However, it is critical to note

that this brokerage process is not coincidental but influenced by trust and substantial time investment, which yields embedded relationships that can be internal or external (McAdam and McAdam, 2008; Baraldi and Havenvid, 2016).

To understand brokerage methods used within enterprise clusters, Patrucco's (2005) and Eisingerich, Bell and Tracey's (2008) studies provide a comprehensive account. Patrucco suggests that localised technological knowledge and geographical proximity factors were instrumental in network creation. Patrucco explains that the localised technology knowledge that emerged within the Emilian plastic cluster was an output of collective learning replete in the cluster. This did not occur randomly but through deliberate formal and informal interactions and spontaneous networking among firms. What can be deduced from this study is that network action begins first through indirect mediation, facilitated by localised knowledge, space and the agglomeration of firms. However, firms in this location directly broker network relationships for themselves. Eisingerich, Bell and Tracey (2008) also acknowledge the role of space in the brokerage process. However, they add that strong ties and network openness are other ingredients of network action. According to Eisingerich, Bell and Tracey (2008), strong ties are a key feature of high-performing clusters. Strong ties provide access to locational resources that are not easily accessible to a firm. Entrepreneurs can leverage repeated face-to-face interactions with established network ties, trust and mutual obligation to ensure inter-firm interaction. Eisingerich, Bell and Tracey (2008) add that network openness and cluster performance has a positive relationship, especially in the face of environmental certainty. Their study notes that when environments are uncertain, resident firms will continuously modify their offerings to maintain competitive advantage. This is to meet changing market preferences and respond to technological changes. Network openness within a cluster creates new sources of information and diversity of talent that can be exchanged (Eisingerich, Bell and Tracey, 2008). In sum, indirect and direct brokerage is also noted in this study. The cluster space and network openness indirectly trigger network action, this is then directly leveraged using strong ties.

So far, this section has attempted to explain how network motives, brokerage methods and behaviour reshape the existing perception of network agency. This is done by taking away focus from network structures and focusing on the entrepreneur who triggers these relationships. This creates an opportunity to explore entrepreneurial network creation and networking dynamics. To get a nuanced understanding of how the context of incubation and cluster in the Lagos technology ecosystem influences entrepreneurial network creation, attention turns to data collected from both contexts.

3. Research Methods

A qualitative approach was utilised to obtain deeper insights and explain the meanings that individuals, which in this case are entrepreneurs attach to different experiences (Leech and Onwuegbuzie, 2007). Additionally, several network studies like (O'Donnell et al., 2001; Hoanga and Antoncic, 2003; Jack et al., 2010) have also advocated for qualitative studies for a deeper and richer analysis of network relationships and network activities that have been created.

Data collection occurred between March 2019 and May 2019, using semi-structured interviews from start-ups within 5 incubators and the Otigba Ikeja cluster. Lagos provided a promising location for investigation, as it is home to some successful fledging start-ups and also the second location with the highest concentration of incubators in Nigeria (NINE, 2018). Semi-structured interviews present an opportunity to probe for answers and build on the responses of participants (Saunders et al., 2016). It is also flexible to use as this allows the researcher to change approach slightly to fit the audience interviewed (Noaks and Wincup, 2004).

For anonymity, incubator tenants' firms are identified by numbers but bear the corresponding letter of their incubator; for example, AT1, BT2, and CT3. Pseudonyms like Company A, B and C are used for cluster firms. 31 entrepreneurs were interviewed. 13 firms within the cluster were interviewed. These businesses include businesses in the early stages; businesses aged 1-4; businesses approaching the growth stage (4-6 years) and (8-12 years) businesses at the maturity stage. Non-probability sampling was employed, Saunders and Townsend (2018) recommend this sampling technique to gain understanding and insights that informs rich insights from the qualitative data collected. A total of 18 tenants in the business incubator were interviewed, most of whom are in their early stages. These incubators were all technology focused. Incubator A, B and E operated a hybrid model (Pre-incubation, Incubation and Acceleration) and Incubator D was a corporate accelerator (set up as an investment spin-off company of a wealth and asset management firm) and

Table 1: Interview Participant Profile

<p>Incubator Type (All incubators are technology focused)</p> <p>Incubator A Private owned (Hybrid) Incubator Provides Co-working space Access to internet Finance Management and Finance Business support and an array of networking events like (entrepreneurial events, social events, mentorship and advisory sessions, hackathons and funding events).</p> <p>Tenant firm AT1 Sector Software Development Age 3years Tenant firm AT2 Sector Real Estate Technology Age 1year Tenant Firm AT3 Sector Health and Fitness Age 5years AT3 Sector Identity Technology Age 1 year</p>	<p>Company A Age 1 year and 2months Service Digital marketer and dealer in mobile phone and accessories</p> <p>Company B Age 3 years Service Dealer mobile phone and mobile accessories</p> <p>Company C Age 5 years Service Software developer / reseller and hardware dealer</p> <p>Company D Age 4 years Service Dealer in computer networking and securities equipment.</p> <p>Company E Age 3 years Service Dealer computer networking, telecommunications and securities devices and an information technology consultant.</p> <p>Company F Age 6 years Service Dealer in computer networking and security devices</p> <p>Company G Age 2 year Service Repair and sale of laptops</p> <p>Company H Age 5 years Service Dealer in mobile phones, laptops and accessories and logistics</p> <p>Company I Age 8 years Service Digital gadget repair and sales.</p> <p>Company J Age 10 years Service Wholesale dealer in computer networking accessories.</p> <p>Company K Age 11 years Service Software dealer and Software deployment trainer</p> <p>Company L Age 12 years Service ICT consultant and digital gadget wholesaler</p> <p>Company M Age 12 years Service Computer securities manufacturer, internet service provider and software developer</p>
<p>Incubator B Private owned incubator (Pre incubation and incubation) Service is double layer (at pre incubation start-ups access training school for one year, supported with training on how to build technology, business development and marketing) At incubation firms access end to end support from co-working space, trainings on how to pitch, code, market and raise additional funding. Access to internet and an array of networking events like (entrepreneurial events, social events, training and funding sessions)</p> <p>Tenant firm BT1 Sector Hr Technology Age 6 Months Tenant firm BT2 Sector Supply Chain Technology Age 1 Year Tenant firm BT3 Sector Health Technology Age 2 years Tenant firm BT4 Sector Hr Technology Age 3 years</p>	<p>Company N Age 1 year Service Digital marketer and dealer in mobile phone and accessories</p> <p>Company O Age 3 years Service Dealer mobile phone and mobile accessories</p> <p>Company P Age 5 years Service Software developer / reseller and hardware dealer</p> <p>Company Q Age 4 years Service Dealer in computer networking and securities equipment.</p> <p>Company R Age 3 years Service Dealer computer networking, telecommunications and securities devices and an information technology consultant.</p> <p>Company S Age 6 years Service Dealer in computer networking and security devices</p> <p>Company T Age 2 year Service Repair and sale of laptops</p> <p>Company U Age 5 years Service Dealer in mobile phones, laptops and accessories and logistics</p> <p>Company V Age 8 years Service Digital gadget repair and sales.</p> <p>Company W Age 10 years Service Wholesale dealer in computer networking accessories.</p> <p>Company X Age 11 years Service Software dealer and Software deployment trainer</p> <p>Company Y Age 12 years Service ICT consultant and digital gadget wholesaler</p> <p>Company Z Age 12 years Service Computer securities manufacturer, internet service provider and software developer</p>
<p>Incubator C Private owned Deep Technology Accelerator Provides Funding Co-working space Access to internet and an array of networking events like (entrepreneurial events, social events, mentorship and expert sessions, and funding events).</p> <p>Tenant firm CT1 Sector VR Technology Age 1year Tenant firm CT2 Sector Artificial Intelligence Age 1 Year Tenant firm CT3 Sector Internet of Things Age 1 year</p>	<p>Company AA Age 1 year and 2months Service Digital marketer and dealer in mobile phone and accessories</p> <p>Company AB Age 3 years Service Dealer mobile phone and mobile accessories</p> <p>Company AC Age 5 years Service Software developer / reseller and hardware dealer</p> <p>Company AD Age 4 years Service Dealer in computer networking and securities equipment.</p> <p>Company AE Age 3 years Service Dealer computer networking, telecommunications and securities devices and an information technology consultant.</p> <p>Company AF Age 6 years Service Dealer in computer networking and security devices</p> <p>Company AG Age 2 year Service Repair and sale of laptops</p> <p>Company AH Age 5 years Service Dealer in mobile phones, laptops and accessories and logistics</p> <p>Company AI Age 8 years Service Digital gadget repair and sales.</p> <p>Company AJ Age 10 years Service Wholesale dealer in computer networking accessories.</p> <p>Company AK Age 11 years Service Software dealer and Software deployment trainer</p> <p>Company AL Age 12 years Service ICT consultant and digital gadget wholesaler</p> <p>Company AM Age 12 years Service Computer securities manufacturer, internet service provider and software developer</p>
<p>Incubator D Private owned Corporate Accelerator Provides co-working space Access to internet Cloud Storage Funding and an array of networking events like (entrepreneurial events, mentorship/ training and funding sessions).</p> <p>Tenant firm DT1 Sector Financial Technology Age 1-year 3months Tenant firm DT2 Sector Insurance and financial technology Age 9 months Tenant firm DT3 Sector Financial Technology Age 1 year Tenant firm DT4 Sector Financial Technology Age 1 year</p> <p>Incubator E Private owned (Hybrid) Incubator Provides Co-working space Support is tailored to meet request of support partners, however an array of networking events like (mentorship/advisory and funding session)</p> <p>Tenant firm ET1 Sector Drone Technology Age 5 years Tenant firm ET2 Sector Drone Technology Age 1 Year Tenant firm ET3 Sector Waste Technology Age 5 months</p>	<p>Company AN Age 1 year and 2months Service Digital marketer and dealer in mobile phone and accessories</p> <p>Company AO Age 3 years Service Dealer mobile phone and mobile accessories</p> <p>Company AP Age 5 years Service Software developer / reseller and hardware dealer</p> <p>Company AQ Age 4 years Service Dealer in computer networking and securities equipment.</p> <p>Company AR Age 3 years Service Dealer computer networking, telecommunications and securities devices and an information technology consultant.</p> <p>Company AS Age 6 years Service Dealer in computer networking and security devices</p> <p>Company AT Age 2 year Service Repair and sale of laptops</p> <p>Company AU Age 5 years Service Dealer in mobile phones, laptops and accessories and logistics</p> <p>Company AV Age 8 years Service Digital gadget repair and sales.</p> <p>Company AW Age 10 years Service Wholesale dealer in computer networking accessories.</p> <p>Company AX Age 11 years Service Software dealer and Software deployment trainer</p> <p>Company AY Age 12 years Service ICT consultant and digital gadget wholesaler</p> <p>Company AZ Age 12 years Service Computer securities manufacturer, internet service provider and software developer</p>

a deep technology accelerator (focus was on high technology support like Artificial intelligence, the Internet of things, and Augmented and Virtual Reality). Table 1 above provides an overview of interview participants.

4. Discussion and Findings

Network creation in both contexts is enhanced by sense-making, that is the ability for entrepreneurs in both contexts to first determine network motives and then use specified brokerage methods and behaviour to meet them. Tenants' firms mention personality, reciprocity, and legitimacy as their three main motives. When an individual's motives are triggered by their personality, they are not influenced by external factors. Instead, they are triggered either by the desire to assist others or simply by meeting people without seeking benefit. Although these firms do not intend to gain any network benefits for participating in network activities, they mention that they get referrals, access ideas, and are more confident to handle future business challenges that may arise. This is similar to what Engel, Kaandorp and Elfring (2017) identify as intelligent altruism, where entrepreneurs are neither selfless nor opportunistic. However, they suggest that this happens when entrepreneurs are unsure of their goals.

A number of firms also cited the need to establish legitimacy and reciprocity as reasons why they engage in network activities. In this study, legitimacy is defined as access to funding opportunities, being remembered, exposure, and future collaborations. In contrast, reciprocity is defined as a value/vision-driven endeavour characterized by the ability to exchange and access information and share a vision. It is similar to studies conducted by Oliver (1990), Shaw (2006), Cooper, Hamel, and Connaughton (2010) that capture the motives of legitimacy and reciprocity. However, a subtle difference noted is that tenant firms' motives to reciprocate are not triggered by cooperation and intentional interactions hinged on goals and interests that are collectively pursued, but rather by a moral obligation to return favours to network parties they were involved with. This echoes Porter and Woo's (2015) view on when an entrepreneur receives benefits that create an obligation to reciprocate to the giver of the favour. Several respondents emphasized the importance of looking for opportunities to reciprocate so that both parties could benefit. Some have also pointed out the downside of being reliant on others, especially those who hold gatekeeper positions. In some instances, individuals look to profit from relationships, while in others, moral or business ethics may be compromised. As a result, this can also be classified as a network challenge. Tertius lungnes behaviour is exhibited by most tenant firms for a brief period of time, as they are willing to use their own networks or introduce other tenant firms to network contacts, as well as to access the networks available to them. This is for a short time, as the benefits recede or can be re-enacted. Grosser et al. (2019) describe this situation as 'Brief lungnes'. As well, both direct and indirect brokerage methods are used, indirectly, location is a major factor in network action facilitation. The incubator location within the Yaba/Ikoyi axis offers tenant firms access to a wide range of network actors, technology talent, community, and opportunities for knowledge transmission, collaboration, and learning. Direct brokerage is also used internally; incubator management makes connections between tenants' firms through social events, pitch events, exhibits, and technology events. They also provide training, referrals and mentor support for them.

Network creation at cluster locations is different from that of tenant firms in incubators. Cluster firms identified trust, the opportunity to access information and knowledge and the opportunity to learn as the main motives for network engagement. Trust motive is created where firms have successfully completed repeated exchanges with each other, as it is a low-trust environment where firms are reluctant to share information or collaborate (Lloyd and Smith, 1993). For cluster firms who are moved to network because of the opportunity to learn from other businesses, they note that networking with other cluster firms is inspirational, as they learn how to run businesses and survive in the cluster. Cluster firms lack active, sustained, and intentional network brokerage. Firms here exhibit separation behaviour, where brokers intentionally separate relationships within a network to take advantage of disconnected individuals. The separation broker separates alter when they are in danger of losing their position as a middleman, preventing alters from getting to know each other just to gain control of the network (Grosser et al., 2019). Control is crucial to these entrepreneurs, as they fear losing business if information gets into the wrong hands, especially with individuals they do not trust. As a result, they resort to knowledge hoarding as a protective measure. Brokerage methods are also direct and indirect. Directly, individuals broker relationships themselves using social media platforms like WhatsApp, informal face-to-face gatherings, referrals and partnerships with other firms co-located in the cluster. Indirectly, the cluster's reputation is a big asset in building network relations. It serves as an instrument for indirect brokerage, even though the facilitated networks are often business or trade networks. This is similar to Eisingerich, Bell and Tracey's (2008) and Patrucco's (2005) studies, where individuals broker their own relationships. However, social media is also useful within this cluster in self-brokerage.

5. Conclusion

This paper provides an alternative approach to exploring network agency, by focusing on the individual entrepreneur who is the source of action. The key message to consider is that context frames agency, as contextual factors and actors' resident in certain entrepreneurial locations would shape an entrepreneur's awareness of network opportunities, action and brokerage methods utilised for accessing resources needed to effectively run their businesses. Network motive triggers network action and acts as a pull for network actors to decide which brokerage method (direct or indirect) is utilised to meet the motives triggered.

This study recommends that entrepreneurial support stakeholders seeking to broker network relations or organise networking activities complete a priori needs assessment of the network beneficiary to first understand their needs, which could also be their motives and the best brokerage method to suit their situations. This is crucial, as it ensures resources are effectively used and that the networks created add expected value to the intended audience. An assessment should be completed afterwards that goals were met

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