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One Location and Two Entrepreneurial Ecosystems?

**A study in the digital and fashion entrepreneurial ecosystems
(EEs) in Egypt post the 2011 revolution**

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Thesis submitted in entitlement of a PhD degree

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List of Abbreviations:

AUC: American University of Cairo

B2B: business to business

B2C: business to consumers

B2A: business to administration

C2C: consumer-to-consumer

CBE: The Central Bank of Egypt

CEO: Chief financial officer

CIB: Citibank

CAPMAS: Central Agency for Public Mobilisation and Statistics

4Cs: coding, categorising, conceptualising and concluding

EE: entrepreneurial ecosystem

EEA: Entrepreneurship Egypt Awards

ESO: entrepreneurship support organisations (ESO)

EM: emerging market

EI: Egypt innovates

Fop: factors of production

GEM: Global Entrepreneurship Monitor

GTM: grounded theory method

GNI: gross net income

GDP: gross domestic production per capita

GCI: Global Competitiveness Index

GII: Global Innovation Index

HGFs: high-growth firms

HIE: high-impact entrepreneurship

IV: institutional voids

ITIDA: Information Technology and Industry Development Agency

IB: International Business

IMF: International Monetary Fund (IMF)

LSP: logistics service provision

MENA: Middle East and North Africa

MNC: multinational companies

MSMEDA: Egyptian Micro, Small and Medium Enterprise and Development

OECD: Organisation for Economic Co-operation and Development

PPP: public-private partnerships

SMEs: small and medium enterprises

SC: social capital

SLR: systematic literature review

SOE: state-owned enterprises

SN: financial support network (FSN)

TEA: total entrepreneurial activities

TIEC: Technology Innovation and Entrepreneurship Centre

VCop: virtual communities of practice

WLB: work-life balance

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Lay Summary:

This thesis explores how fashion and digital entrepreneurs in Egypt post the 2011 revolution cope with their market, finance, and human institutional voids. To answer this question, three theories were employed. After developing a model based on welding the theories of; institutional voids, entrepreneurial ecosystems and social capital, the researcher will examine the model functionality based on interviewing 41 entrepreneurs. First, the entrepreneurial ecosystem theory is utilised because it furnishes the domains required for high impact entrepreneurship (HIE).

Second, institutional voids theory was chosen to describe the socio-economic challenges in emerging markets. This thesis leads in employing institutional voids theory because, compared to the classic institutional theory, the former believes that entrepreneurs in emerging markets workaroud their unappealing socio-economic business climate to further grow their business. This theory offers a balanced approach to emerging markets because it focuses on the coping mechanisms of its resilient entrepreneurs rather than solely describing the business environment to be poor or developing. As such, it offers an *analytical* approach rather than a *descriptive* one of EMs.

Put simply, entrepreneurs do not choose to quit but they rely on their innovative capacities to fill their regional voids. The final theory chosen was the social capital theory out of the conviction that entrepreneurs rely on the richness of their social

networks to access exclusive resources that could not be possibly available in their challenging business environments. After welding the three theories, this thesis offered a model that suggests that entrepreneurs rely on specific six coping approaches to fill their regional voids. First, 1) direct recruitment from family and friends, 2) endorsement from an investor or current employer or/and 3) circulation of the publicity about a job fills the human capital void. Also, 4) screening borrowers to access credit from a circle of acquaintances and/or through 5) passing on parental privileges such as cash or other physical assets fill financial capital voids, whereas 6) networking by sharing exclusive information fills the market void.

In order to test the theoretical model, the researcher interviewed 31 digital entrepreneurs compared to 10 fashion entrepreneurs. Findings suggest that a) there are two separate ecosystems in Egypt because entrepreneurs of both ecosystems operate differently and b) that both ecosystems are at different growth stages. On the one hand, a surprising finding was that the digital ecosystem is growing and developing led by a) an active financial ecosystem, b) positive governmental intervention to support the growth of digital businesses, as well as, c) existence of active online interaction between entrepreneurs to share exclusive information. On the other hand, the fashion ecosystem is at its early stages for reasons stemming from the fashion entrepreneurs themselves.

They show no willingness to resort to external credit other than their family and friends and resist networking attempts due to the lack of trust between them and the craftsmen¹ who assemble their jewellery products. Findings also suggest that the government still overlooks this very promising sector compared to full attention given to the digital ecosystem.

¹ craftsman is commonly known in Egypt as sanayee صنايعي

Abstract:

The overarching aim of this thesis is studying the processes of digital and fashion EEs in the context of emerging economies. By studying the processes of EEs, this thesis refers to studying the practices undertaken by entrepreneurs when they draw on local resources to produce high impact entrepreneurship (HIE). An EE is a set of interdependent domains that enable high impact entrepreneurship within a particular territory. The significance of this research stems from the scarcity of research studying EEs processes in emerging countries compared to developed economies. An implication of this gap is that questions as to *Where do local entrepreneurs in emerging markets extract their resources from?* and *How do they allocate their resources for the functioning of ecosystems?* remain unanswered. Therefore, the research questions of this thesis have been crafted to address such a gap. The three research questions are derived as to 1) *What are the characterisations of digital and the fashion human capital, financial capital and market voids in Egypt?* 2) *What role does social capital (SC) play in mediating the voids for both ecosystems?* and 3) *What is the impact of the institutional voids on the effective functioning of the digital and fashion EEs?*

The entrepreneurial ecosystems theory postulates that high growth entrepreneurship requires *resourceful domains* of a mature financial domain, talent, dense networking, and easy information access. Nevertheless, those set of factors are only appropriate for developed economies while absent for emerging markets that are characterised by labour, financial capital and market voids.

Those voids possess institutional arrangements of *institutional voids* that are fundamentally different from those of the developed economies; a gap which lends credence to studying the local dynamics of entrepreneurial ecosystems in emerging markets. By welding social capital theory with that of institutional voids and entrepreneurial ecosystems, the theoretical framework suggests that an entrepreneur relies on his/her embeddedness within a dense social network of family and friends to fill regional voids. This means that entrepreneurs utilise social capital to access three specific resources of talent, funding, and information when alternative hubs of resources are scarce or absent. To answer the questions of this thesis, the researcher adopted a qualitative method by in-depth interviewing a total of 41 entrepreneurs divided between 31 digital and 10 fashion entrepreneurs operating in Egypt.

Findings suggest that there are two industry-based ecosystems operating separately and that they are at their different growth stages within the same region. This is because both ecosystems varied in terms of the constituents of their voids and their reliance on social capital for funding and recruitment which impacted their growth cycles. Findings revealed that the digital ecosystem, though operating in a region of institutional void, is surprisingly and unexpectedly, operating strongly. Moreover, it is at its stage of growth to maturity compared to the embryonic fashion ecosystem. The digital EE is growing led by an active sector of incubators and accelerators, supportive policy intervention of 'Digital Egypt' and entrepreneur-led networking events. Also, active attempts by the digital entrepreneurs themselves such as self-education has helped in mediating the scarcity and the pricy digital talent whereas they resisted

social capital for cultural reasons. On the other hand, the fashion entrepreneurs relied on social capital for funding and recruitment, as well as their efforts to mediate the severity of the voids of the fashion EE. However, lacking policy intervention, lacking awareness of incubators in business, resisting networking, and resisting access to external credit hampered growth attempts of the fashion ecosystem. Implications of research findings are that there is a desperate need for a strategic intervention to support creative ecosystems. An intervention could be through the financial inclusion of creative industries to acknowledge artwork as a type of business eligible for bank credit. Also, offering dual degrees within business education in schools of design and arts could perhaps raise awareness amongst the fashion entrepreneurs on the role of incubators for their business scale-ups. This could help fashion entrepreneurs grow, expand and diversify their operations, as well as improve their ecosystem functioning. Acknowledging that creative industries in the UK accounted for billions of pounds in revenue, this would contribute to the growth of the Egyptian economy.

Keywords: entrepreneurial ecosystems, emerging markets, Egypt, fashion ecosystem, digital ecosystem, institutional voids, social capital.

Chapter One: Introduction

1.1) Background about entrepreneurship and entrepreneurial ecosystems (EEs) in emerging markets (EMs)

1.1.1) The rise of entrepreneurial ecosystems as a field of research:

Entrepreneurship rose to the forefront of business research when the oil crisis hit the world in the 1970s. At that time, large companies were faced with dire economic difficulties and failed to adjust to market needs, and this comparatively led entrepreneurship to rise as a promising economic endeavour (Carree & Thurik, 2010; Wennekers & Thurik, 1999). Described by Birch (1979, p.31) as 'the only significant provider of jobs' in the USA, the economic vitality of entrepreneurship was evident in the Thatcher-Reagan era when the view was that 'small businesses must save us' (Wennekers & Thurik, 1999, p.29).

Therefore, small, and medium enterprises (SMEs) were politically legitimised, and entrepreneurship was anointed as a source of economic development and job creation. Emerging out of this milieu and the belief that new venture creation is the lubricant for regional development, business schools started to embrace entrepreneurship education to foster the rise of entrepreneurship (Aminova et al, 2020; Carree & Thurik, 2010). The study of entrepreneurship is expansive to involve the process of opportunity discovery, resource allocation, the environmental, social and economic factors that induce entrepreneurship, as well as the set of entrepreneurs who discover and allocate resources (Amit et al, 1993; Shane & Venkataraman, 2000).

Accordingly, the central questions of entrepreneurship research address *What makes a society more dynamic than others? How are opportunities discovered? By whom? and What are their consequences on society and the economy?* (Carlsson et al, 2013; Venkataraman, 2019).

Entrepreneurship research has witnessed multiple evolutionary waves dominated by corresponding units of analyses and research lineages. Before the 1960s, research on entrepreneurship was dominated by neoclassical thought whereby entrepreneurship was considered a product of supply and demand laws and market equilibrium. Post-1960s, research on entrepreneurship emphasised the individualistic and personality traits of entrepreneurship (Amit et al, 1993; Ricketts, 2006; Stam & Van de Ven, 2021).

However, in 1980s entrepreneurship research led by Gartner (1985; 1988) in his seminal work *'Who Is an Entrepreneur? Is the Wrong Question'* (1988) believed that the research focus on the traits approach of entrepreneurship would not yield a thorough understanding of the entrepreneurship process. Gartner (1985) contended that new ventures do not occur in *vacuum* but rather are an output of a business environment that implies the systematic interaction of certain elements. Since then, entrepreneurship research has expanded to focus on the social, political, and economic factors (Gnyawali & Fogel, 1994) that produce entrepreneurship rather than the personality of an entrepreneur (Spigel & Harrison, 2018). Within such a vein and rooted in the institutional setting of the entrepreneurship process in the second half of the twenty-first century, entrepreneurial ecosystems (EEs) became one of the most popular subjects in contemporary entrepreneurship research when Isenberg (2010) published his seminal work in *Harvard Business Review* (Acs et al, 2017; Malecki, 2018).

For its role in regional development, burgeoning research output corresponds to the policy interest in the EEs phenomena. This thesis adopts the definition of an EE as a set of interdependent actors and factors coordinated to enable productive entrepreneurship within a particular territory (Stam & Spigel, 2018). This definition is chosen because it acknowledges the processes of EEs through the coordination of actors and factors that surround, support, influence and enhance activities that culminate in productive entrepreneurship. A dominant lineage in EEs theory is discussing the domains (Isenberg, 2010; 2011), actors and factors (Spigel & Harrison, 2018; Spigel, 2020), and/or list of resources (Stam, 2015) that define the environment conducive for entrepreneurship of impact.

Regardless of the variety of the terms used interchangeably to refer to the prerequisites of an EE, a domain is made up of resources that constitute the current infrastructure for entrepreneurship with impact (Stam & Van de Ven, 2021). Indeed, the strict time constraints of this thesis made examining the whole model of the six domains with their elements, impossible. Therefore, the units of focus within this thesis are human capital, financial capital, and market domains. They were chosen compared to other domains due to their importance to an ecosystem as Chapter Two will detail and discuss.

The importance of studying the EEs offers a two-fold contribution. Practically, EEs theorists conceive that high-growth entrepreneurship is important for regional growth because it contributes to the creation of jobs, wealth, social benefits, innovation, productivity growth, and knowledge creation. The EEs phenomena, proxied by HGFs, generates a multiplier effect of jobs, innovation, and social welfare at accelerated rates because usually HGFs are young

(less than 5 years), could be new entrants, and are relatively small in size. For example, despite HGFs representing a small percentage of typically 2% and 6% in most countries, they are fast-growing and playing a large role during both times of recession and economic prosperity (Audretsch, 2012; Acs, 2010; 2011; Du et al, 2015; Mason & Brown, 2014; Schreyer, 2000).

Second, conceptually, entrepreneurial ecosystems research is a promising field that draws on geography, culture, history, organisation theory, economics, management, political science, and sociology fields of research to study ecosystem practices. It, therefore, deepens our understanding of the interaction between actors, resources, and organisations for the promotion of HGFs. So rather than focusing on one domain, entrepreneurial ecosystems research studies a wide array of resources that *interact* to support the scale-up of firms of impact (Spigel, 2020). Acknowledging the intersection of the entrepreneur as an agent and the environment as a factor for entrepreneurial ecosystems, it is argued that the development of entrepreneurial ecosystems is positioning itself in a niche in the entrepreneurship research realm by balancing both studies of the entrepreneur, which dominated the field in the 1960s, as well as, the environment, that dominated in the 1980s.

1.1.2) The role of entrepreneurship in the development of emerging markets (EMs):

The term 'emerging markets' (EMs) was first used by Antoine Van Agtmael in 1981 when at the International Finance Corporation (Sarfaraz, 2020) referring to newly industrialised nations that followed the wave of market-liberation around the 1980s. EMs share a common background of having had a history of socialism and/or communism with state-owned enterprises (SOE), yet, they have chosen to adopt national strategies that will help them transition to free-market economies of market liberalisation after the dissolution of the Soviet Union in the late 1980s (Aidis et al, 2008; Arnold & Quelch, 1998; Dijk, 2018; De Clercq et al, 2010; Hoskisson et al, 2000).

Recent decades have witnessed spectacular development in emerging markets of China, India, and many Southeast Asian countries which led to the emergence of regional billions of entrepreneurs. The variance in growth rates between EMs and developed economies rose from 2.4% in 2017 to 3.5% in 2023. The contribution of EMs to the global domestic production per capita (GDP) accounted for more than 50% in 2018, hence, rising from its contribution to less than 50% only a decade earlier. EMs are commonly considered low-income and rapidly growing countries adopting economic liberalisation as their primary engine of growth (Hoskisson et al, 2000). However, tools of classification of EMs vary based on factors of wealth, export diversification, their gross net income (GNI), their GDP and the degree of integration into the global financial system (Arnold & Quelch, 1998; Muller, 2018; Sarfaraz, 2020).

Moreover, there is no single comprehensive framework that explains the pace of development of those economies because they are heterogeneous in their institutional contexts (Estrin et al, 2019). However, an indicator of emerging markets is represented in their classification by the World Bank (WB) into low-income, lower-middle, and upper-middle incomes with GNI per capita ranging between \$1,005, \$3,956, and \$12,235 respectively in 2018 (Muller, 2018). Such a lack of unification of EMs manifested in uncertainty surrounding their number, for example, Morgan Stanley identified 24 countries to be EMs while Muller (2018) identified EMs to be 200 countries and the International Monetary Fund (IMF) identified them to be 152 based on their income classification. However, EMs yield more than 80% of the global countries such as those of the Middle East and North Africa (MENA), Latin America, and many African and Asian nations (Muller, 2018; Sarfaraz, 2020).

Identified as a 'global powerhouse', Muller (2018, p.1) argues against such classifications because they oversimplify EM market dynamism and their financial depth and sophistication. For example, lots of oil-producing countries in the Gulf region have high GDP growth rates but are still regarded as emerging which could perhaps be attributed to their relatively underdeveloped financial institutions. Entrepreneurship is a vehicle for GDP growth created by enterprising individuals or entrepreneurs who can spot opportunities, create jobs, innovate, and initiate firms (Carree & Thurik, 2010; Naude, 2011). Audretsch and Keilbach (2004) argued that entrepreneurship is the fourth factor of production in the macro-economic phenomenon alongside the classic labour, capital, and land for its role in economic growth. Entrepreneurs stimulate economic growth as they help in self-employment and job creation (Blanchflower, 2000), innovation and knowledge creation (Acs et al, 2009; Audretsch & Keilbach, 2004).

A prominent framework that explains the role of an entrepreneur in economic development is that of Wennemers and Thurik (1999). The model explains how entrepreneurs, on the micro-level, transform inventions into economically and commercially viable entities which leads to the outcome of creating or operating a firm that factors in economic growth. The instrumentality of entrepreneurs to economies is evident in the process of value they offer to societies (Naude, 2011). This value involves introducing new products, new methods of production, new organisational schemes, and new product combinations; all factors spurring economic growth, prosperity, and vitality (Carree & Thurik, 2010; Schumpeter, 1934). Through those activities, an entrepreneur maximises his/her wealth, and improves the organisational performance that eventually the overall economic performance.

In the context of emerging economies, entrepreneurs contribute to economic development because their behavioural activities stimulate the economic indicators of regional GDP per capita, growth and rates of labour productivity (Naude, 2011; Van Praag & Versloot, 2007). First, entrepreneurs contribute to the alleviation of poverty through job creation because an entrepreneur employs himself/herself and creates job opportunities for others. Job creation accordingly leads to the improvement of the welfare and well-being of citizens (Aminova et al, 2020; Hamdan et al, 2022; Naude, 2011). Second, entrepreneurs shape the market structure and engineer the pace of technological advancement because as agents of change, they adopt and commercialise ideas into viable business opportunities (Blanchflower, 2000; Audretsch & Keilbach, 2004). They can accordingly transform the traditional factor/agricultural and efficiency/industrial-driven economies into more advanced innovation/knowledge-based economies.

The role of an entrepreneur in creating innovation-driven economies stems from value-added activities and technical evolution that leads to the diversification of emerging economies and an increase in exports, thus helping African and Asian countries reach the innovation-driven stage of high-impact entrepreneurship (Acs et al, 2015; 2018; Iftikhar et al, 2020; Hamdan et al, 2022; Naude, 2011; 2013; Tomaa et al, 2014). Interestingly, Stam and Van Stel (2011) argue that the growth of EMs could be accelerated when they capitalise on global advanced technology and eventually progress through technological modernisation. For example, Egypt as an efficiency-driven economy has the potential to harness world technology and reach the innovation-driven stages of growth (Mansour et al, 2018). The rapid pace of EMs growth is represented in 2010 data concluding that EMs contributed 38% of the global GDP so twice its share rate compared to only a decade earlier (Dhanaraj & Khanna, 2011).

Nevertheless, despite the potential of EMs and their role in developing the world economy, entrepreneurship research and particularly high-impact entrepreneurship research fixate its gravity around developed economies whereas studying the entrepreneurship dynamics of EMs remains imbalanced compared with the developed world (Estrin et al, 2019; Foo et al, 2020). This fact stands in stark contrast to the high entrepreneurial activities in less developed economies with more than 400 million entrepreneurs either owning or newly managing firms in those regions (Lingelbach et al, 2005).

1.2) Positioning research questions:

This thesis's overarching aim is to study the processes of digital and fashion entrepreneurial ecosystems in the context of emerging economies. A contribution of this research is to diversify and expand our understanding of the entrepreneurial ecosystems' theory (Brydges & Pugh, 2021; Du et al, 2015; Loots et al, 2021; Maroufkhani et al, 2018; Wurth et al, 2022).

The process of entrepreneurial ecosystems refers to the practices undertaken by entrepreneurs when they draw on local resources to produce high-impact entrepreneurship. Therefore, researching the process of an entrepreneurial ecosystem means understanding the logics of its functioning, the coherence of its domains and behavioural activities of opportunity identification and allocation of resources undertaken by entrepreneurs.

As such, the objective of this thesis *is to study how local entrepreneurs in regions of institutional voids draw on their regional resources to explore, evaluate and exploit the opportunities to scale up firms*. Entrepreneurial ecosystems literature suggests that value creation and high-impact entrepreneurship are outputs that require a *resource-based* framework of efficient markets, full and accessible information, human capital, and mature financial systems with coordinated activities. Entrepreneurial ecosystems theorists perceived high impact and productive entrepreneurship to be the outcome of efficient, developed, and accessible formal institutional frameworks; all conditions that define developed economies (Audretsch et al, 2021). Conversely, EMs are characterised by weak and absent institutions that lead to the scarcity of resources and eventually inhibit the full realisation of an EE potential (Baumol, 1996; Cao & Shi, 2021; Coleman, 1989; Khanna & Palepu, 2010; North, 1990).

EMs possess different institutional arrangements of *institutional voids* that are not convenient for the extant literature framing of entrepreneurial ecosystems phenomena. For example, the entrepreneurial ecosystems literature suggests that entrepreneurship of impact is an output of a human capital domain that includes talent and skilled labour that offer knowledge for the firm growth, conversely, EMs have a human capital void because they have unskilled labour (Ebrashi & Darrag, 2017). Second, the entrepreneurial ecosystems literature suggests that high-impact entrepreneurship requires a coordinated system of financial intermediaries and the existence of a wide network of venture capitalists and angels (Mason & Brown, 2014).

EMs have underdeveloped and scarce financial institutions or what is known as a financial capital void (Ebrashi & Darrag, 2017; Khanna & Palpeu, 2010; Narooz & Child, 2017). Similarly, the entrepreneurial ecosystems literature suggests that entrepreneurship of impact requires full information access manifesting through dense market networks (Stam, 2015; Mason & Brown, 2014), however, EMs have incomplete information access which characterises their market void. Therefore, based on the current EE literature, EMs institutional arrangements of *institutional voids* threaten the full realisation of entrepreneurial ecosystems potential and could produce weak and sparse ecosystems (Spigel & Harrison, 2018). The differentiation in the output of entrepreneurship activities between either productive or unproductive dates to the seminal work of Baumol (1990). Since then, entrepreneurship research has espoused institutional theory to examine the context of emerging markets by identifying how institutional environments can either hinder or promote entrepreneurial opportunities based on their development.

A well-developed institutional framework then furnishes the resources and their inter-relationships for the creation of entrepreneurship opportunities (Manolova et al, 2008; Luiz et al, 2021; Ostrom, 2005). Institutions are *ex-ante* agreements, taken-for-granted assumptions, informal and formal rules that shape behaviour (Bruton et al, 2008). Nevertheless, this research steers the wheel away from adopting the classic approach of institutional theory to describe the context of the EEs.

This is because classic institutional theory frames emerging economies as having weak, soft, or thin institutions that impact economic growth by halting the widespread entrepreneurship opportunities (Aparicio et al, 2016; Acs et al, 2018; Bosma et al, 2018; Sun et al, 2020; Urbano et al, 2020). Alternatively, this thesis adopted the theory of institutional voids to explain the context of emerging markets. According to the nascent institutional void theory (IV), voids are not *vacuums* but gaps rich with opportunities that are awaiting exploration (Khanna & Palepu, 2010). Therefore, when saying EMs have human capital, financial capital, and market voids, this means that they are full of resources and opportunities that need to be harnessed to fill regional gaps. This thesis adopts the definition of IV as a lacuna created by the weakness or absence of institutions and intermediaries (Khanna & Palepu, 2010). Indeed, as the next chapter will discuss in detail, the nascent IV theory is not the same as the classic institutional theory because the latter skims the tenacity, ambition, resilience of local entrepreneurs and their adaptive behaviour to fill their regional voids.

The classic institution theory frames emerging economies in an unfavourable light by describing them as poor with lack of institutional arrangements and/or incentives that lead to increasing transaction costs and uncertainty (Gao et al, 2017; Luiz et al, 2021; North, 1990). It offers an *analytical approach* to EMs rather than a *descriptive* one. The classic institutional theory misses the central question of *How do local entrepreneurs survive and thrive in their socio-economic conditions to fill their regional voids and cope with their market failures?* However, IV theory extends to the classic institutional theory and balances studies of the institutional framework of EMs with the adaptive behaviour and strategies of local entrepreneurs to mediate the weakness of their institutions. Studying the mechanisms of EMs offers a balanced approach to entrepreneurship research and acknowledges the efforts of local entrepreneurs who successfully cope with their compromised institutional frameworks. It also expands on the strategies and the behaviour to grow firms of impact in the context of EMs by local entrepreneurs.

Therefore, by welding EEs theory with the IV theory, the research objective is formulated as studying the process of digital and fashion EEs within the context of emerging markets. This means *studying how do local entrepreneurs in regions of institutional voids, draw on their regional resources to explore, evaluate and exploit the opportunities to scale up firms*. This objective offers a two-fold contribution as it remedies the gap of both; the understudied process-based lineage of entrepreneurial ecosystems and the context of emerging markets.

First, the lack of process-based papers that study the dynamic interaction of the actors and factors of an ecosystem remains a persistent gap in the literature according to Alvedalen and Boschma, (2017), Brown and Mason (2017), Cao and Shi (2021), Stam and Spigel (2018), Spigel and Harrison, (2018), Maroufkhani et al (2018), as well as Wurth et al (2022). This means that extant literature on EEs remains largely conceptual rather than context or process-based because it offers a laundry list of resources/domains/actors or factors that are required for high-impact entrepreneurship (Stam & Van de Ven, 2021; Spigel & Harrison, 2018; Shwetter et al, 2019). However, those theoretical frameworks are not mirrored in real-world settings, so the logics of the interaction, the coherence or/and the interdependence of those resources and the process of resource allocation to produce high-impact entrepreneurship are not practically examined.

For example, answers to questions such as *How do local entrepreneurs in emerging contexts allocate resources for ecosystem growth? How do elements of the EEs cohere in those contexts? What are the dynamics of the EEs in those contexts?* remain unanswered.

An implication of such an imbalance between theory to process-based papers is that the extant literature fails to deliver a comprehensive framework of EEs phenomena although entrepreneurship is a context-based phenomenon. Moreover, the researcher adopted an investigative approach to EEs by focusing on the specific industries of fashion and digital. Those are chosen to respond to the calls for diversifying and expanding research on EEs to balance the narrow focus of high-technology sectors (Brydges and Pugh, 2021; Loots et al, 2021; Maroufkhani et al, 2018; Wurth et al, 2022).

This is especially that HGFs, although overly represented in service-based industries, are inclusive of all sectors without being confined to only high-tech start-ups (Du et al, 2015). As such, this thesis will open a window in the black box of the EEs studies through engaging and interacting with entrepreneurs of both sectors. The outcome is richer and more accurate insights that augment our holistic understanding of the EEs phenomena (Zahra et al, 2014; Zahra, 2007; Zahra & Wright, 2011).

Second, Maroufkhani et al (2018) concluded that within the scarce process-based research, Africa and the Middle East received little to no attention compared to increasing research conducted in the developed world and the Far East. This gap implies that the EEs research assumes that there exists a universal framework that can be applied to all regions while neglecting the situation-specificity of any ecosystem functionality. For example, if developed economies have mature markets with full information access, a fully developed financial system and qualified talent required for their regional growth (Audretsch et al, 2021; Mason & Brown, 2014; Spigel, 2016).

Conversely, EMs are characterised by human capital, financial capital, and market institutional voids. This is because the context of emerging markets is characterised by a lack of intermediaries, weak and thin institutions that impede resource access and thus threaten the full realisation of the entrepreneurial ecosystems' potential. It is therefore imperative to investigate the dynamics of entrepreneurial ecosystems in contexts of emerging economies to understand how local entrepreneurs produce HIE practically and theoretically to expand on the current framework of entrepreneurial ecosystems theory.

Context investigates a particular environment whereby a phenomenon exists or emerges, so studying an entrepreneurial ecosystem within a particular context means understanding its dynamics within its local setting (Forouharfar, 2020; Theodoraki & Catanzaro, 2022; Stam & Spiegel, 2018; Spiegel & Harrison, 2018). Contextualisation is the integration of regional observations into a set of relevant factors and events that contribute to the larger whole of the theory building (Zahra & Wright, 2011). Accordingly, by contextualising the study of entrepreneurial ecosystems in the Middle East, this thesis will foster novel analyses when investigating research questions, theories, and findings in their natural setting (Zahra et al, 2014).

Comparatively, an impact of ignoring the contextualisation of entrepreneurial ecosystems is overlooking the uniqueness, richness, and complexity of how entrepreneurs differ in allocating local resources. Such variety is a key source of novelty and the wealth of diversity of entrepreneurial ecosystems theory. Another practical implication of process-based papers in the literature on entrepreneurial ecosystems is that they mislead policy advisors in emerging economies into importing governmental interventions that were once enacted successfully in one region to be applied to another. This is because the assumption of the universality or one-size-fits-all entrepreneurial ecosystems framework assumes that there exists a single 'cargo cut' intervention of copying the prominent features of a successful region to other contextually different regions (Wurth et al, 2022, p.27).

The aim of this thesis is then to address this gap by studying the black box of entrepreneurial ecosystems in emerging economies. An implication of this contribution is examining prior findings in other contexts, contesting the field's boundaries, and enhancing the overall understanding and functioning of the theory (Zahra, 2007). Moreover, the policy implication of shielding the gap is illuminating policy advisors on convenient resource allocation and appropriate incentive structures (Wurth et al, 2022). The next section presents and tabulates the research questions of this thesis and offers a justification for each crafted question.

1.2.1) Primary research question:

The main research question of this thesis is *What are the characteristics of the digital and fashion EEs regarding human capital, financial capital, and market institutional voids in the context of Egypt?* To answer this question, the defining elements of both ecosystems will be outlined followed by approaches undertaken by the digital and fashion entrepreneurs to fill their voids for the operation of their respective ecosystems as follows;

1.2.1.1) Research Question 1:

What are the defining characterisations of digital and fashion human capital, financial capital, and market institutional voids in Egypt? The objective of this question is to unravel the elements constituting the institutional voids of both ecosystems. This as questions of *Which void precedes another? What is the sequence of voids? Are all voids operating equally in emerging markets?* remain unanswered in literature (Alvedalen & Boschma, 2017; De Brito & Leitão, 2021; Dijk, 2018; Cohen, 2006; Mason & Brown, 2014; Nicotra et al, 2018;

Stam and Van de Ven, 2021). For example, the entrepreneurial ecosystems literature describes favourable conditions as domains/ actors/ factors/ predecessors' attributes or a laundry list of resources (Stam & Spigel, 2018; Van de Ven, 1993) for the evolution of a successful ecosystem without dissecting nor unpacking those domains and explaining their defining elements. In their systematic literature review on entrepreneurial ecosystems theory, Dijk (2018), De Brito & Leitão (2021), as well as Maroufkhani et al (2018) concluded that the market domain is under-represented compared to prime attention given to human and financial capital. Also, the constituents of talent and skill dominated the literature to describe the human capital domain at the expense of knowledge-sharing. Moreover, the role of crowdfunding as a pertinent resource for the financial domain has not been examined.

A theoretical implication of this gap is assuming the equality of all localised conditions for entrepreneurs to successfully operate in an ecosystem. An extension of this gap in emerging markets would be assuming the equality or the severity of all voids without differentiating one from another. Cohen (2006, p.12) referred to this challenge as a 'chicken-and-egg challenge' as policy advisors could be confused about which void precedes which. And which is more important than the other? For example, questions such as *What is the sequence of the processes of an EE? What is the impact of a certain void on the whole ecosystem? Whether high-growth regions attract investors or whether investors' concentration within a region attracts entrepreneurs* would help policy advisors in recognising which void is worth intervention, when and how (Brown & Mason, 2017; Cohen, 2006; Wurth et al, 2022).

Therefore, this research question is crafted to remedy this gap by exploring, comparing, and contrasting the constituents of both ecosystems.

1.2.1.2) Research Question 2:

What role does social capital (SC) play in mediating the voids for both ecosystems?

Questions addressing *How do entrepreneurs allocate resources for the operation of their HGFs? What is the role of an entrepreneur as an active agent in the promotion of the local EEs? How is social capital employed as a resource to fill regional voids?* remain unanswered in the literature. This gap implies that the literature on entrepreneurial ecosystems lacks a systematic investigation into the role of an entrepreneur in mobilising local resources for the operation of his/her HGFs although, ironically, the entrepreneur is a pillar of the ecosystems phenomena.

This research question underlies the theoretical framework of this thesis as it suggests that digital and fashion entrepreneurs rely on their embeddedness within their social networks to recruit talent, have access to financial resources and share exclusive information in a context whereby institutions fail to offer those resources for an ecosystem's growth.

Another sub contribution of this question is that it dissects and unpacks the abstract role of social capital in offering resources by focusing on three specific resources of recruitment, funding, and information.

1.2.1.3) Research Question 3:

What is the impact of the institutional voids on the effective functioning of the digital and fashion EEs? The objective of this research question is creating a micro-macro link for the EEs by offering a cause-and-effect explanation of the resources accessed and allocated by local entrepreneurs. Therefore, this question attempts to understand how the ecosystem practices impact the functioning and the proper performance of entrepreneurial ecosystems. For example, questions such as *What is the impact of voids on the ecosystem? What are the consequences of missing components on the EEs performance? Are both industry-based ecosystems operating equally?* remain unanswered in the context of the entrepreneurial ecosystems theory.

An implication of this gap is that literature on entrepreneurial ecosystems suffers from a tautological problem (Alvedalen & Boschma, 2017; Stam, 2015; Stam & Spigel, 2018; Mack & Mayer, 2016; Nicotra et al, 2018). This problem because it lacks a thorough and systematic investigation of the accumulated causation of voids and their impact on the evolution of ecosystems. Therefore, this research question is crafted to untangle the interdependence of the elements of both ecosystems by examining the logics of both local entrepreneurial ecosystems in terms of cause-and-effect mechanism. Table 1.1 summarises the significance of each research question and how it is crafted to fill a research gap by corresponding to unanswered questions in the literature. Also, Figure 1.1 displays how each theory is employed to serve the purpose of this thesis research objectives.

Table 1.1: Outlining the thesis research questions and their contribution to the literature

Research questions	Questions unanswered in the literature	Implication of gap	How the gap is bridged?
Overarching aim: Understanding the processes of EEs in emerging markets in the context of institutional voids	<i>How local entrepreneurs in emerging markets allocate resources for ecosystem growth? How elements of EE cohere? What are the dynamics of EE?</i>	The EEs lacks a comprehensive framework that limits our understanding of the logics of an EE. We need to understand how those elements are interlinked practically rather than metaphorically	The research aim is crafted to investigate resource access and allocation within an ecosystem to offer a holistic approach to EEs in emerging markets. This happens by balancing theory-based with process-based papers.
RQ1: What are the characterisations of digital and fashion human capital, financial capital, and market voids in Egypt?	<i>Which void precedes which? Are both ecosystems operating equally in their voids? Are the voids equally severe? What are the elements of those voids?</i>	Assuming that all voids or domains are equal in importance is challenging for policy advisors they are puzzled about which domain is worth intervening in and addressing.	Addressing three specific voids and identifying their constituting elements as perceived by local digital and fashion entrepreneurs
RQ2: What role does social capital (SC) play in mediating the voids for both ecosystems?	<i>How do entrepreneurs rely on their family and friends to extract resources and fill regional voids? What is the role of an entrepreneur in the process of an EE?</i>	Lacking systematic research on how entrepreneurs navigate their territorial challenges? Limited understanding of the role of entrepreneurs in the promotion of their own ecosystems	Studying how entrepreneurs rely on their embeddedness within society to extract resources to fill regional voids when other alternatives of relying on institutions are absent, the role of an entrepreneur is crystallized
RQ3: What is the impact of the institutional voids on the effective functioning of the digital and fashion EEs?	<i>What is the impact of voids on the ecosystem? What is the consequence of missing components on the growth of ecosystems?</i>	Offers a tautological problem as the literature on EEs lacks a systematic investigation of the cause and effect of voids on ecosystems.	Addressing how each void is mediated to offer a general landscape and their impact on the ecosystem. It addresses the confusion between the resource's

existence and its accessibility.

Source: Author

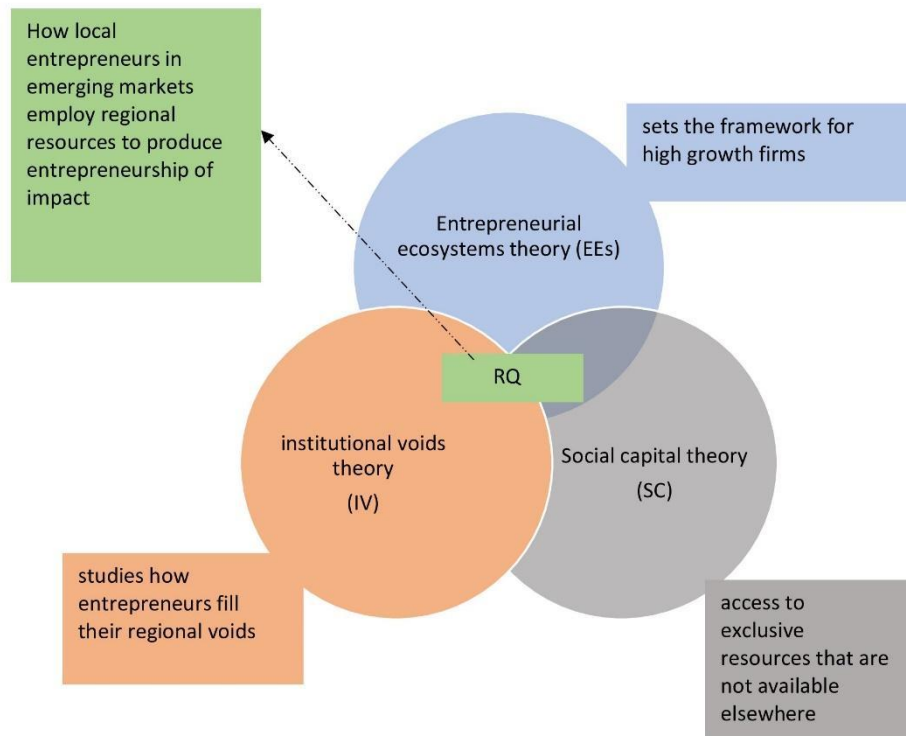


Figure 1.1: The three theories employed in this thesis to serve the purpose of the research objective

Source: Author

1.3) Significance of researching the digital and fashion ecosystems in Egypt after the 2011 revolution era:

1.3.1) Egypt after the 2011 era at a glance:

Egypt is one of the largest countries in the Arab world. The country witnessed a defining moment in its history when the Egyptian youth flooded the famous Tahrir Square, Downtown Cairo, on the 25th of January 2011. The Egyptian revolution is known to have witnessed two waves where at both times the Egyptians flooded the streets calling for overhauling the by-then political regimes. During the first wave, the Egyptian youth called for ending the Mubarak regime that had been governing for 30 years since the assassination of Al Sadat². As a demand of the revolutionary youth, the first democratic elections were organised in 2013 bringing for the first time in history the Muslim Brotherhood (MB) into power (Mallakh, 2017).

However, after only a very few months in power, the second wave of the revolution was led this time by mostly Egyptian women³ (Mahmoud, 2013) against the ruling of the Muslim Brotherhood that sought to bring anguish, curtail, and crush the hopes of women (Al-Anani, 2015). To save the country from such political turmoil, the Egyptian military led by Defence Minister Fatah Al Sisi, the current Egyptian president, organised a coup d'état (Al-Anani, 2015) that won Egyptians' support because millions of Egyptians flooded the streets asking for the MB to leave power.

² The peace president Anwar Al Sadat who was awarded Nobel prize for establishing peace with Israel

³ The radical anti-feminist organization supported female genital mutilation (FGM) practices and sought to promote it as an Islamic right (Dyer, 2013) They also swept away the recognition of women rights in the constitution and encouraged under age marriage to be nine years old (McVeigh, 2013) Aware of how the MB, as a political and a misogynistic organization attempts to pervert Islam for their own political interests, women protesters flooded the streets upholding banners such as 'you are not Islam, this is not Egypt' (McVeigh, 2013)

During the first wave of the revolution and due to the instability of the Arab region, the country witnessed low productivity levels, a sharp decline in the tourism sector and economic instability that shaped the business climate. Those challenges led to economic stagnation and the curtailing of financial freedom. For example, in 2013 government outstanding debt comprised around 89% of the country's GDP (Rizk & Azzazy, 2016). However, since 2017, after the relative political stability in the country and recent government reformations as the following chapters will discuss, Egypt witnessed a surge in its economic activity to achieve growth of 5.5 % (World Bank, 2022).

1.3.2) The rise of an entrepreneurship-friendly environment and enterprising culture after the 2011 revolution:

This is the most convenient timing to tap into the momentum of studying entrepreneurship dynamics in Egypt. The country is promoting the birth of a new republic to rebrand its image and detach from pre-2011 practices. This is because in a country with a history rooted in socialism (Crabbs, 1975) entrepreneurship has never been of burgeoning ideology and an alluring career path. Societal values and norms are the main drivers of entrepreneurship activities (Estrin et al, 2019), however, in their research on the Omani context, Al-Baimani et al (2021) concluded that the lack of entrepreneurship appreciation in Oman impedes the evolution of its entrepreneurial ecosystems.

Conversely, the Egyptian 25th January 2011 revolution stimulated a sense of individual empowerment in the Egyptian youth compared to the socialist⁴ values exhibited by earlier generations who perceived self-employment as inferior to governmental positions for the safety the latter offers (Ismail, 2016; Ragab et al, 2020; Mansour et al, 2018). The attractiveness of entrepreneurship stems from the Egyptian revolutionary youth and their self-belief that they can control their own destinies; a matter which Ragab et al (2020, p.507) referred to as 'revolution ramifications' (Forouharfar, 2020). Such tech-savvy and multilingual youth have been educated abroad, expanded their global horizons and are more inclined to start their businesses in innovation and technology sectors rather than join their traditional family firms (Estrin et al, 2019; Mansour et al, 2018). Data from GEM supports such cultural shift with the indicator of perceiving entrepreneurship as an attractive path soaring to 80% in 2019 hence above the global median by more than 10-15%.

Since 2011, entrepreneurship-friendly practices have been launched both; *legally*, *economically*, and *culturally* to tackle unemployment rates of 12.7% and create more employment opportunities for 105,000 million citizens (CAPMAS⁵, 2023; Zaki & Rashid, 2016). Aspects of such an entrepreneurship-friendly climate were represented on multiple institutional levels. For example, for the first time since 2017, a unified definition for small and medium business enterprises (SMEs) has been crafted to facilitate fiscal incentives to SMEs through outlets of the National Bank of Egypt (NBE) and Citi Bank (CIB) (Mansour et al,

⁴ Egypt has been leading the MENA region in the wave of its socialist revolution from 1952 led by Gamal Abdul Nasser till 1971 or privatization of the Anwar Sadat era

⁵ CAPMAS is Egyptian Central Agency for Public Mobilisation and Statistics is the central data agency in Egypt

2018; Ali et al 2021; Ragab et al, 2020; Rizk & Azzazy, 2016). Also, the Ministry of Strategic Planning partnered with the American University of Cairo (AUC) to organize technology hackathons that stimulate start-ups in the innovation and technology industries across regions in Egypt. Those unprecedented business-supportive interventions were reflected on the international indicators of the Global Competitiveness Index (GCI) where Egypt rose from 53.5 to 55 from 2018 to 2019, as well as the Global Innovation Index (GII) where the country scored above the median of 33.68 in 2020 (Ali et al, 2021). Also, the national GDP has been growing from 4.6 in 2017 to 6.0 in 2022; all such promising indicators necessitate investigating Egypt's entrepreneurship dynamics (Ali et al, 2021).

Moreover, a legislative policy intervention has been crafted to cut registrar paperwork by encouraging businesses to formally register online and resolve around 80% of business problems (StartUp Scene, 2023). On the cultural level, branding and marketing entrepreneurs as role models for the revolutionary youth has been another strategy that has been supported by various public and private outlets since 2011. Two acclaimed programs of Shark Tank Egypt⁶ and Cairo's Youth⁷ Provide regular funding to the winning business plan. Second, start-up weekends have been held for the first time in Egypt raising awareness of entrepreneurship as a career path (Rafik, 2023).

⁶Shark Tank Egypt version website, it has been launched in January 2023, <https://impcoco.me/>.

⁷Cairo youth هنا الشباب, conducted as part of the programme of Honna Al-Asseema or from Cairo the Capital, <https://www.youtube.com/watch?v=OvqNwO-vCuU>

Third, the annual summits of the Entrepreneurship Egypt Awards (EEA)⁸ are being held to celebrate the best entrepreneurs in the categories of sports, agriculture, leisure, media, and creativity. In fact, publicly screening those businesses is a polar shift in the policy of a nation that its TV series used to associate businessmen with corruption, embezzlement, and illegal activities prior to the 2011. Therefore, this temporal context lends credence to investigate the dynamics of entrepreneurship in Egypt.

A Temporal orientation in examining theories is immanent for the expansion of our understanding of them because some groups could be enthusiastic about entrepreneurship activities while others are lax about it. It could potentially influence entrepreneurs' tenacity and tap into investment opportunities. Acknowledging such a temporal dimension to the EEs, it is believed that this is the best time to investigate the dynamics of the EEs in Egypt after the 2011 era when the youth are adopting an entrepreneurship mindset and practice (Zahra & Wright, 2011). The post-2011 youth perception of entrepreneurship as an alluring career path has been evident in the annual rise in the culture and norms indicator of the Global Entrepreneurship Monitor (GEM) report from 3.8% in 2015 to 4.6% in 2018 and 4.8% in 2021. In both years in 2018 and 2021, Egypt maintained a score that is equivalent to the average score of the cultural attractiveness of entrepreneurship (Bosma et al, 2018).

⁸ Entrepreneurship Egypt Awards (EEA) <https://www.eeawards.org/>

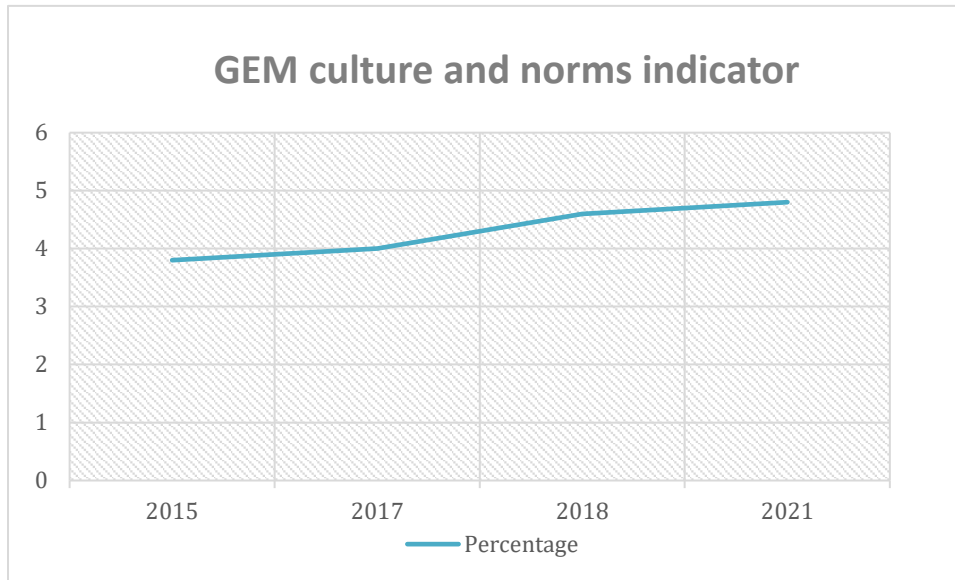


Figure 1.2: The rising percentages of GEM culture indicator in Egypt across the years

Source: GEM data (2016; 2018; 2021)

1.3.3) The parameters of research as the digital and fashion ecosystems:

The parameters of this research are the digital and fashion ecosystems. On the one hand, the digital ecosystem was chosen as a context of investigation because high growth firms (HGFs) lie at the heart of EEs since they lead to significant economic impact. Digital ecosystems, proxied by high-growth firms, contribute to rapid productivity and regional growth. This is enacted as their outcome is a regional multiplier effect of innovation, sales, and job creation within a limited time frame (Audretsch, 2012; Acs, 2011; Du et al, 2015; Mason & Brown, 2014; Schreyer, 2000; Stam & Spiegel, 2018). As such, their outcome aligns with the purpose of EEs of creating rapid regional growth.

Moreover, the fashion industry is considered another source of creativity, job creation and innovation immanent for regional development (Potts, 2009). For example, in Toronto, Canada, the creative fashion sector contributed to 1.1 billion jobs (Brydges & Pugh, 2021). Studying the fashion ecosystem is chosen to correspond to calls by Malecki (2018) for diversifying the literature on EEs and expanding the scope of its dominant digital contexts. It was such an overrepresentation of the digital sector that acted as the main reason for choosing the fashion sector as another context of investigation. By studying alternative ecosystems, besides, the mainstream of the digital sector, this thesis covers the gap of the narrow focus of digital ecosystems within the literature of EEs. It, thus, offers a balanced approach to EEs studies especially since firms of impact exist in *all* industries (Du et al, 2015).

1.3.4) The rise of interest in digital and fashion sectors in Egypt after the 2011 era:

After the 2011 revolution era, the Egyptian digital and the fashion sectors witnessed economic and cultural interest especially by the Egyptian youth. In Egypt, both industries are classified as separate industries, and both belong to different governing bodies. The cultural interest in the digital sector in Egypt arose from the active role the social media played in mobilising Egyptian masses towards the success of the 2011 revolution. During the first 18 days of the revolution, the Egyptian masses relied on Facebook to plan and coordinate their actions (Clarke & Kocak, 2020; Hamanaka, 2020), so since then the digital industry has garnered wide local attention and sparked their interest.

Similarly, the Egyptian revolutionary youth had a particular interest in industries such as arts, fashion, and design compared to earlier decades. Since the 1950s onwards, Egypt witnessed the dismantling of its creative sector as an impact of the 1952 revolution⁹ that viewed arts as an elitist industry while harbouring other industries such as engineering and agriculture instead to promote its socialist ideology (Hamama, 2014). However, post the 2011 and for the first time in the country's history, the Global Fashion Week was held in Cairo/Egypt in May 2023 at the premise of the Grand Egyptian Museum in Giza. The event was organised by the Fashion and Design Council and accommodated designers from fashion powerhouses like Chanel and the local and regional brands of Okhtein¹⁰, Zuhair Murad¹¹ and Ellie Saab¹² (O'Donoghue, 2023).

1.4) Overview of the research approach:

To answer the research questions of this thesis, the qualitative method has been chosen because it is convenient for this research purpose. The qualitative method is best suited to enlighten the reader on uncharted landscapes such as scarcely examined processes of EEs in the context of emerging markets. Accordingly, this study is governed by an interpretive paradigm whereby data findings represent how entrepreneurs perceived their ecosystems and how their subjective interpretations of their environments gave meaning to the reality of the process of an ecosystem in Egypt.

⁹ In 1952, the military led by the socialist icon 'Gamal Abdul Nasser' abolished monarchy and established the Republic of Egypt that adopted socialist values.

¹⁰ An international brand led by Egyptian sisters known as sisters or 'Okhtein' that design luxury bags for world international celebrities

¹¹ Lebanese Fashion designer that designs clothing and fashion wear for international celebrities and high-profile figures

¹² Lebanese Fashion designer that designs clothing and fashion wear for international celebrities and high-profile figures

Entrepreneurs having their businesses in the SMEs and operating in the digital and fashion sectors were purposely chosen as key informants serving the theory of the entrepreneurial ecosystem that has HGFs at its core.

Extracted from Miles and Huberman's (1994) three streams of analysis, the qualitative data analytic treatment is based on the three cycles of coding, categorising, and conceptualising before concluding (4Cs). Data condensation stage was characterised by transforming empirical data extracted from the interview corpus and field notes and assigning them into codes (Miles & Huberman, 1994; Miles et al, 2014). In the second stage, segments of data were assembled into a compact body of information to guide the researcher into understanding various levels of abstraction (Miles et al, 2014; Miles & Huberman, 1994; Creswell, 2012). Then, the meaning of codes was assigned through identifying similar patterns, explanations, and causal flows before arriving at grounded conclusions (Miles et al, 2014; Miles & Huberman, 1994). Data analysis was conducted in-depth within the case of the digital entrepreneurial ecosystems, as well as that of the fashion ecosystem separately. The findings were constantly compared to each other and presented as cross-case comparisons (Yin, 2018).

1.5) Structure of thesis:

Chapter Two: Chapter Two displays the theoretical foundation of the thesis. To answer the thesis research questions, a theoretical framework that draws on the entrepreneurial ecosystem, institutional void and social capital theories has been produced to then examine its viability in the context of the digital and fashion EEs in Egypt. The integrative model seeks to explain how digital and fashion entrepreneurs dissect the resources derived from their embeddedness in their social networks to fill their human capital, financial capital, and market institutional voids. The chapter starts by detailing the three theories under study, as well as, situating the theoretical framework within the gaps of extant literature of the theories under study.

Chapter Three: Chapter Three displays the systematic steps undertaken to address the research questions at hand. As an impact of the scarcity of papers studying the process of ecosystems, the methodology undertaken to answer the research questions is qualitative because it serves to illuminate the reader on uncharted theoretical landscapes. Therefore, the research sought to interview a sample of 41 entrepreneurs divided between 31 digital and 10 fashion entrepreneurs in Egypt. This chapter starts by explaining the interpretive paradigm that guides the research methodology followed by the data collection process. Finally, the chapter displays the ethical standards of the research process and the steps undertaken to ensure the quality of the findings.

Chapter Four: Chapter Four presents the data findings gleaned from the interviews.

Therefore, this chapter starts by answering the three research questions within the digital EE first followed by the respective questions for the fashion EE.

Chapter Five: Chapter Five discusses the findings of the digital EE and the fashion ecosystems in terms of their constituents, how social capital played a role in filling their respective voids, well as, the impact of those voids on both ecosystems.

Chapter Six: Chapter Six is the concluding chapter of the thesis. This chapter positions the research findings and theoretical contribution within the context of EEs for augmenting our understanding of the EEs theory. Moreover, this chapter will explain how the findings offer practical implications that are required for entrepreneurs and policy advisors, alongside theoretical implications that will further enrich the theory by adding new insights. It ends by enlightening the readers on opportunities for future research.

Chapter Two: Literature Review

2.1) Introduction:

This chapter discusses the three theories employed in this thesis to understand the processes of EEs in emerging markets. As Chapter One detailed, this thesis attempts to answer three interlinked sub-questions; *1) What are the characterisations of digital and fashion human capital, financial capital, and market voids in Egypt? 2) What role does social capital (SC) play in mediating the voids for both ecosystems? and 3) What is the impact of the institutional voids on the effective functioning of the digital and fashion EEs?* By welding the three theories of entrepreneurial ecosystems, institutional voids, and social capital, an integrative framework will be presented to explain how entrepreneurs in emerging markets rely on their social capital to access the specific resources of talent, funding, and exclusive market-related information.

The entrepreneurial ecosystems theory deals with the resources required for the creation of entrepreneurship of impact, while the institutional void theory describes the context of emerging markets. Finally, the social capital theory discusses the approaches of how regional entrepreneurs access resources to fill their human capital, financial capital, and market institutional voids. This chapter has four sections, the first three sections discuss the theories for this thesis and each section ends by addressing the gap in the respective literature. Section four represents the integrative framework that is built on covering the gaps in the three theories combined and then it delineates the integrative diagram after each theory is explained.

2.2) Entrepreneurial Ecosystems (EEs) Theory:

Literature on entrepreneurial ecosystems theory is usually described as anarchic (Theodoraki & Catanzaro, 2022) or/and 'chaotic and fuzzy' (Brown & Mason, 2017, p.1). It, therefore, lacks a universal definition for EEs remains elusive because the field is nascent and is dominated by fragmented conceptual efforts without attempts to converge those definitions into a coherent body of knowledge. Only recently has there been a stream of systematic literature reviews (SLR) assembling the scattered conceptual definitions of EEs to assimilate a comprehensive understanding of the theory as evident in the work of De Brito and Leitao (2021); Cho et al (2022); Cao and Shi (2021); Thai et al (2023); Maroufkhani et al (2018), Purbasari et al (2019) and Wurth et al (2022). Indeed, the notion of environmental context as an antecedent for venture creation was pioneered by William Gartner (1985) who led the field in incorporating the entrepreneur as an element of an aggregate multi-dimensional framework for regional growth and venture creation (Garnter, 1985; 1988). As Chapter One indicated, before Gartner (1985) entrepreneurship literature was focusing on the micro role of individual entrepreneurs in the entrepreneurship process.

Gartner (1985; 1988) then called for researchers to decipher the role of the social-economic environment on new venture creation (Alvedalen & Boschma, 2017; Gartner, 1985). Since 1985, subsequent authors such as Neck et al (2004), Spilling (1996) and Van de Ven (1993) agreed with Gartner's (1985) contention that the *entrepreneurship environment* is an impetus for entrepreneurship using terms of 'climate', 'system' and 'context' respectively to highlight the impact of the surroundings on firm growth.

The term entrepreneurship 'environment' has been dominating the literature from the 1970s till 2015, yet, it has been replaced with 'ecosystems' which outweighed terms of 'infrastructure' and 'systems' since 2016; referring to how context is conducive to entrepreneurship, innovation, and regional growth (Malecki, 2018). This stream of research advocates the 'Porterian' school of thought, named after Michael Porter, who called for the creation of a high-quality environment for fostering *local* entrepreneurship (Rocha & Audretsch, 2022). EEs as an independent field of study gained momentum when Isenberg (2010) published his seminal work in the *Harvard Business Review* garnering more citations than any other paper on ecosystems (Malecki, 2018). The term 'ecosystem' is imported from James Moore (1993) explaining how businesses grow within a context not in a vacuum (Moore, 1993).

An entrepreneurial ecosystem has two components, the first component refers to *entrepreneurship* as a process whereby business owners discover, exploit, and evaluate opportunities for innovation or/and the production of goods and services (Stam, 2015; Schumpeter, 1934; Shane, 2000). The second component of the *ecosystem*, refers to the mutual interdependence of diverse actors within their nested community of habitat (Tansley, 1935; Stam, 2015; Stam & Van de Ven, 2021). Exporting the ecological thinking to business is credited to James Moore (1993) who originally described the co-opetition of actors within a system to be a *business ecosystem*. Such framing offers a relational and context-based approach to entrepreneurship (Audretsch et al, 2021; De Brito & Leitao, 2021; Moore, 1993).

In their paper, Autio and Levie (2017. p.2) justify such exportation of 'ecosystem' to the field of social sciences explaining that generally economics deals with systems of processes and outputs that indicate performance measurements. The adoption of an ecological perspective in entrepreneurship includes the contextual examination of current or the creation of new hypotheses that ensure the multiplication of businesses and their scaling (Audretsch et al, 2021). Therefore, entrepreneurship has been conceived as an output either supported or/and constrained by antecedents. Literature on EEs is characterised by five different research patterns; each dominating its field of research through time. The first research pattern, dominating the first wave of EEs research, sought to identify the social and economic domains, as well as, the resources that shape, support and promote the production of entrepreneurship of impact (Banc & Messeghem, 2020; Brown & Mason, 2017; Feld, 2012; Harima et al, 2021; Rijnsoever, 2020; Nicholls-Nixon et al, 2021; World Economic Forum, 2013; Isenberg, 2010; 2011).

The second research pattern that dominated the second wave of EEs research sought to understand the processes of entrepreneurship or how entrepreneurs draw on their regional resources and marshal them for high-impact entrepreneurship; however, in this pattern of research, studies of developed economies outweighed those of emerging economies hitherto (Spigel, 2016; 2022; Stam, 2015; Stam & Spigel, 2018; Audretsch et al, 2021; Pittz et al, 2021; Shi & Shi, 2022; Yang et al, 2022; Cao & Shi, 2021; Maroufkhani et al 2018).

The third pattern dealt with the multi-level approach of regional EEs whereby the actors of an EE were presented in micro, meso, and macro constructs (Theodoraki & Meseghem, 2017; Roundy & Fayard, 2020) whereas the fourth research pattern is dedicated to studying the role of policy governance and intervention to support HGFs (Autio & Levie, 2017; Brown & Mawson, 2019; Mason & Brown, 2014). The final fifth and most recent pattern is dedicated to exploring the evolutionary dynamics and life cycles of EEs. This pattern was pioneered by Mack and Mayer (2016) and then expanded upon by Brown and Mason (2017), Harima et al (2021), Colombelli et al (2019), and Shi and Shi (2022). This pattern explains how the availability or absence of certain domains and the intensity and density of their interactions could aid in the growth or hindrance of the growth of an EE (Cho et al, 2022).

For example, Brown and Mason (2017) identified that the limited number of resource providers within an EE defines an embryonic EE compared to their mass existence which leads to the scale-up of EEs. In the same vein but with different dynamics, Colombelli et al (2019) defined the evolutionary cycles to be based on the intensity and density of networks in an ecosystem. Also, other papers such as that of Stam and Harrison (2018) which explored the typology of ecosystems in terms of strength or weakness of an EE performance, could be incorporated in this research pattern as well.

Nevertheless, across their differences in those EEs research patterns, it can be argued that entrepreneurial ecosystems literature has four shared facts; the first is that an entrepreneurial ecosystem is made up of certain domains that furnish the environment for regional growth. A domain represents a set of elements, a list of conditions, actors, and resources that constitute the infrastructure immanent to produce EEs phenomena (Stam & Van de Ven, 2021; Woolley, 2017). Those domains are human capital, financial market, culture, market, and policy which once present would lead to the creation of EEs phenomena.

Second, the process of such domain/actor/ attribute interactions is complex and dynamic, not linear. Those domains reinforce each other to sustain an ecosystem's growth (Spigel, 2016). Isenberg (2011, p.7) called the ecosystem interaction 'high bandwidth' because it deals with a large number of variables interacting in a highly complex manner. Those elements reinforce each other to sustain an ecosystem. Indeed, the EEs literature has a dominant lineage of systems thinking due to the interdependence of multiple entrepreneurship support organisations (ESOs) and the heterogeneity of their resources that help deliver productivity (Acs et al, 2017; Theodoraki & Messeghem, 2017; Roundy & Fayard, 2020; Spigel, 2016).

Papers of Cao and Shi (2021), as well as, and Levie and Autio (2008) underscored the role of systematic interaction of knowledge, value chain activities, and technical experimentation shared between the actors of an ecosystem to lower the threshold of starting a venture. However, although research on EEs believes that actors of an ecosystem are interlinked dynamically, the literature did not examine the coherence of EEs elements (Alvedalen & Boschma, 2017; Malecki, 2018; Spigel & Harrison, 2018).

Stam (2015) addressed such a challenge by describing literature on EEs as to having a tautological problem. This is because the literature identifies a laundry list of resources that are important for an ecosystem without deeply examining the systematic interrelation between the elements of an ecosystem (Stam, 2015). Third, the entrepreneur lies at the heart of the EEs field for his role in catalysing his/her firm growth, mobilising resources, and opening untapped markets to capture economic value (Acs et al, 2017; Isenberg, 2011; Spigel & Harrison, 2018). The entrepreneurial ecosystems field aligns the role of entrepreneurs alongside firms, suppliers, customers, and capitalists while prioritising the role of *entrepreneurs* as community leaders who draw on local resources to produce *high-impact entrepreneurship*. This feature contrasts the research on regional innovation systems (RIS) which hardly acknowledged the centrality of the entrepreneur in the process and did not focus on entrepreneurship of impact. Rather they credited the enterprise instead and focused on self-employment as an outcome (Alvedalen & Boschma, 2017; Audretsch et al, 2021; Acs et al, 2017; De Brito & Leitao, 2021; Stam, 2015; Spigel, 2016).

A final common thread is that EEs are concerned with high-impact entrepreneurship (HIE) proxied by High Growth Firms (HGF). Those HIE involve activities that bring inventions to the market to create value and firm growth, so HIE is distinctive from the mere action of establishing a firm that could replicate thousands of other establishments (Acs, 2010). High-impact entrepreneurship has HGFs or firms of impact as an output of systematic interactions of resources that lead to the *scalability* and *growth* of those firms of impact.

Those firms have an outcome of a multiplier effect on business growth, innovation, productivity, sales, and job opportunities (Alvedalen & Boschma, 2017; Audretsch et al, 2021; Malecki, 2018; Stam & Van de Ven, 2021). The phenomena of EEs is concerned with value creation, the economic impact of wealth and prosperity, the social value of knowledge diffusion and the technological value of innovation (Audretsch et al, 2021; Isenberg, 2010; 2011; Stam, 2015). For such an outcome to be attained, HGFs need access to specialised resources that differ from resources supporting new firms such as talented human capital rather than labour who just perform dutiful tasks.

It is also noticeable that HGFs are not large firms, or elephants, employing more than 500 employees, but are rather young and relatively small-sized firms and grow quickly with palpable primary impact (Acs & Mueller, 2008). HGFs, such as gazelles, are detrimental to entrepreneurship of impact because they offer 3 to 6 % of annual growth and 13% of turnover (Audretsch, 2012; Alvedalen & Boschma, 2017; Acs & Mueller, 2008; Malecki, 2018; Mason & Brown, 2014; Ratten, 2020; Spigel, 2016; Stam, 2015; Spigel & Harrison, 2018). For example, HGFs generated more than half of all new jobs in terms of 10 or more employees during the recession times from 2008-2009 in the United States (Mason & Brown, 2014).

The phenomena of 'high growth' was first identified by David Birch (1979) who concluded that what he christened as 'gazelles' contributed disproportionately to the gross of net new job creation compared to average firms (Brown & Mawson, 2019; OECD, 2017; Birch, 1979). The OECD classifies HGFs as all enterprises with average annualised growth greater than 20% per annum over three years (Eurostat-OECD, 2007).

For instance, in Brazil HGFs accounted for 0.6 % of the total firms while employing several 3.5 million between 2012 and 2015 (Monteiro, 2019). Acknowledging the impact of high-impact entrepreneurship, EEs are geared at the duplication of HGFs for their exceptional contribution to regional growth performance. Table 2.1 outlines the prominent definitions of the literature on EEs, their contribution to the literature and the dominating research pattern per each respective definition. However, as Chapter One indicated, this thesis defines an EE as a set of interdependent actors and factors coordinated to enable productive entrepreneurship within a particular territory (Stam & Spiegel, 2018). This definition is chosen because it includes the necessary components for the EEs phenomena. First, it addresses the necessity of productive entrepreneurship of impact that separates entrepreneurship of EEs from low-growth entrepreneurship or self-employment (Spiegel, 2020).

Second, it discussed the particular role of ambitious entrepreneurs in exploring, exploiting and marshalling regional resources to create high-impact value. Third, the definition underpins the process lineage of EEs by mentioning the coordination of actors and factors. Finally, the definition underpins the role of territory in shaping the identity of the ecosystem. Therefore, those components individually and collectively make this definition the best suited to serve the purpose of investigating how local entrepreneurs allocate resources for entrepreneurship of impact.

Table 2.1: The prominent definitions of entrepreneurial ecosystems (EEs)

Theorist	Definition of an EE	Contribution to the literature	Research pattern of definition
Daniel Isenberg (2010)	"EE consists of a set of individual elements that combine in a complex way" (2010, p.43)	Pioneered in outlining the EE model. Adapted domains from Cohen (2005) but his model garnered attention more than any other paper on EEs (Malecki, 2018)	Domain/resource-based perspective
Daniel Isenberg (2011)	"EE acts as a pre-condition to cluster strategies, innovation systems, and knowledge-based economies" (Isenberg, 2011, p.1)	Deepened the understanding of the ecosystem domains and their respective elements	Domain/resource-based perspective
Ben Spigel & Richard Harrison (2018)	"EE represents a conceptual umbrella encompassing a variety of different perspectives on the geography of entrepreneurship" (2018, p.152)	Offered a three-dimensional model of cultural, social and material attributes of an ecosystem	Process-based perspective
Erik Stam (2015)	"EE is a set of interdependent elements coordinated in a way which enables productive entrepreneurship" (2015, p.1765)	Offered a process-based model to EEs in terms of domains as input, output as productive entrepreneurship activity and outcome as social value creation	Process-based perspective
Colin Mason & Ross Brown (2014)	"EE is a set of interconnected entrepreneurial actors, entrepreneurial processes which formally and informally coalesce to govern the performance" (2014, p.5)	The most comprehensive definition of an ecosystem. Also, the theorists offered another model of an ecosystem of; the public sector, private sector, academic institutions, financial institutions, culture & infrastructure.	Policy & regional-governance perspective

Christina Theodoraki & Karim Messeghem (2017)	"EE is a highly complex multi-level construct that needs to be studied using various levels of analysis" (2017, p.48)	Led in offering a complex multi-level study of an ecosystem based on the context of France	Multi-level construct perspective
David Audretsch et al (2021)	"EE includes agents that absorb the necessary resources from the ecosystem and produce critical resources for others" (2021, p.317)	Offered outcomes of an ecosystem to be of economic (value creation), technological (spillover) and societal (social) impact	Process-based perspective
Fank Van Rijnsoever (2020)	"EE is a set of actors that interact and exchange resources in a network under an institutional regime and an infrastructure" (2020, p.2)	Contributed by studying the role of incubators in the EEs	Process-based perspective
Harima et al (2021)	"EE are a dynamic interaction between interdependent actors and other factors embedded in institutional environments of a particular region" (2021, p.4)	Leading in the studies of EEs and immigrant entrepreneurship	The process-based perspective of immigrant entrepreneurship

Source: Author

2.2.1) Unpacking the entrepreneurial ecosystems domains:

One of the largest streams of research on the literature of entrepreneurial ecosystems is dedicated to exploring the necessary domains that stimulate the supply of entrepreneurs. Usually presented as a list of attributes or antecedents, an entrepreneurial ecosystem domains include players, stakeholders, ingredients and resources that furnish the fertile soil for high-impact entrepreneurship. Those domains create the environment necessary for high-impact entrepreneurship as they represent a wide set of resources that constitute the infrastructure immanent for entrepreneurship of impact (Malecki, 2018; Spigel & Harrison, 2018; Spigel, 2016; Stam & Van de Ven, 2021; Woolley, 2017).

As there is no consistent definition of an entrepreneurial ecosystem, similarly, the exact mixture of elements that produce high-growth entrepreneurship remains inconclusive (Alvedalen & Boschma 2017; Erina et al, 2017; Malecki, 2018; Spigel & Harrison, 2018). Literature on EEs produced five prominent profiles of domains as evident in the work of Brown and Mason (2017), Feld (2012), Isenberg (2010; 2011), World Economic Forum (WEF) (2013) and Maroufkhani et al (2018); bearing similarities and differences in both the domain title and their count. The original model is that of Isenberg's (2010) which accounted for fifty idiosyncratic elements ascribed to six domains of culture, market, policy, human capital, support, and finance that interact to produce entrepreneurial impact. The second model by Feld (2012), an entrepreneur in the Boulder community, had a nine-domain model sharing only four domains with that of Isenberg's while adding that of networking, leadership, middlemen, and companies.

A third eight-domain model proposed by the World Economic Forum (2013) expanded on Isenberg's six models to add another two domains of; education/training and universities which could have been elements of the human capital domain, yet they were chosen as two independent domains. The fourth model is that of Brown and Mason (2017) which had the same domains as Isenberg's (2010; 2011) but the former authors changed four original domain titles. They changed policy to the public sector, support to the private sector, human capital to academic institutions and market to infrastructure.

The final model was based on a systematic literature review paper by Maroufkhani et al (2018) which identified nineteen complex elements that are ascribed to eight domains. Their model is inspired by Isenberg (2011) but added crowdfunding and market dynamics as separate domains. For strict time limitations, this thesis does not discuss the whole profile of the six domains of an ecosystem, but it rather discusses the three most prominent domains that are shared by the four profiles and have been outlined by the systematic literature reviews (SLRs) as the most commonly cited domains in the field arguably; the human capital, financial capital and the market domains (Maroufkhani et al, 2018; Miriam et al, 2018). The next section describes the human capital, financial capital and market domains, their elements, and their overall relevance to the nature of the local ecosystem process.

2.2.1.1) Role of the human capital domain in the entrepreneurial ecosystems:

The terminology of human capital was popularised by Shultz (1962) and Becker (1976) substituting the term 'labour' as a prominent factor of production. In the classic economic theory of capitalism, capital has been tied to inventories, land equipment and labour. Labour was used as a factor of production (FOP) that increases productivity (Pelinescu, 2015; Xu et al, 2009). Shultz (1962) identified that *human* endowment of skills and knowledge does constitute a form of *capital* due to the substantial effort required in their investment. Shultz (1962) argued that human capital is as equally important as non-human capital assets such as land and finance. Human capital is the stock of skills, knowledge, experiences, and personality attributes for the creation of economic value (Ostergaard & Marinova, 2018).

Since the 1980s, economic theory has expanded to include human capital and its elements of innovation and quality education as inputs for economic growth (Pelinescu, 2015). The EEs literature underscored the necessity of a wide and diverse pool of talent for an ecosystem referring to them as tacit 'knowledge-bearers' (Bathelt et al, 2004, p.38) and/or 'intellectual capital' (Chaudhuri et al, 2022, p.3), as well as 'embodied expertise' (Mason & Brown, 2014, p.15).

In the 1960s, John Galbraith outlined the role of knowledge as a factor of production because it leads to the possession of authority and agency which is considered a firm asset (Xu et al, 2009). Human capital is talent in both job-technical skills and business competencies such as sales, management, marketing, and business development (Stam & Spigel, 2018). The EEs Literature agreed on the elements of a wide pool of talented employees, placement agencies, as well as quality of academic institutions to characterise the human capital domain (Chaudhuri et al, 2022; Mason & Brown, 2014; Mack & Mayer, 2016; Stam 2015; Spigel, 2016). The relevance of human capital to regional growth is that they act as intangible assets that can hardly be replaced, attained, or sustained because they are bearers of tacit knowledge, on-the-job training, technical know-how, expertise, and previous work expertise. Conversely, other tangible resources can be easily replaced or recycled (Chaudhuri et al, 2022; Lee et al, 2004; Ostergaard & Marinova, 2018).

The prominence of human capital in an entrepreneurial ecosystem is reflected in Cohen's (2006) study on the Boulder community whereby 67% of the entrepreneurs attributed their venture success to their employees. Otherwise, lower levels of human capital negatively impact the chances of firm formation and survival (Acs & Armington, 2004; Cohen, 2006; Lee et al, 2004; Stam, 2015). Talent is a precursor for a knowledge economy because talented knowledge enablers promote the growth of technology through learning-by-sharing mechanisms. Such a mechanism is enacted through face-to-face dissemination of tacit and non-codified knowledge on technical know-how (Gertler, 2003).

In particular literature on the economic geography of agglomeration and entrepreneurship has discussed the role of local knowledge, as a human capital externality, in improving regional performance (Bathelt et al, 2004; Qian et al, 2013; Romer, 1986). This happens when a diverse pool of talents co-exist and co-operates to acquire specific information, absorb it, transform it then widely share it creating regional competitiveness to other ecosystems or what Gertler (2003, p.27) called sharing of 'secret of success performance' from 'just being there'.

Such interaction leads to innovation, knowledge and technology diffusion or 'local buzz' that helps entrepreneurs harness novel knowledge streams that are ecosystem exclusive (Bathelt et al, 2004, p.36; Mason & Brown, 2014). The output of such diffusion is the mediation of local information asymmetry, balance of imperfect markets and lack of special skills. Those outputs eventually lead to the overall wealth of the regional entrepreneurial ecosystems and regional institutional thickness due to the accumulated stock of such non-tradable knowledge capital (Bublitz, 2018; Chaudhuri et al, 2022; Nicotra et al, 2018; Ostergaard & Marinova, 2018; Usai et al, 2018).

If talent is a consistent element of entrepreneurial ecosystems, the role of academic institutions as a source of human capital supply is debatable in the literature. This is evidenced when the World Economic Forum (2013, p.6) added 'major universities' as a separate domain of an ecosystem alongside human capital, similar to Brown and Mason (2017), Ostergaard and Marinova (2018), and Wilson and Briscoe (2004) arguing for the role of meritocracy in the production of quality graduates armed with wisdom, enterprising skills,

knowledge and expertise. Similarly, Stam (2018), Qian et al (2013), Nicotra et al (2018) and Lee et al (2004) associated talent with the educational attainment of university degrees because the quality of educational institutions raises the quality of human capacities of the population and improves the process of knowledge spillover.

Comparatively, Feld (2012, p.37 & 39) rejected the premise that an ecosystem is tied to universities. His contention was limiting the role of universities in organising entrepreneurial activities because the establishment of universities imposes restrictive protection of intellectual property rights (Feld, 2012; Mason & Brown, 2014) that could compromise the free flow of exclusive information. Moreover, recruitment agencies act as another source of regional human capital supply because they, alongside other business groups, are resourceful talent magnets that help entrepreneurs avoid unnecessary bottlenecks. The instrumentality of such agencies is that they offer help to entrepreneurs to perform activities *free of charge* in return for long-term business relationships (Mason & Brown, 2014; Özbilgin et al, 2015).

2.2.1.2) Role of the financial capital domain in the entrepreneurial ecosystems:

Finance is the most widely recognised resource for entrepreneurship activity. Traditionally, it has been associated with the classic economic theory of capitalism as a main factor of production (FOP) known as capital (Xu et al, 2009). It is a fungible business resource that is detrimental to the development of an ecosystem because an ecosystem cannot be nurtured without financial institutions (Mason & Brown, 2014; Levie & Autio, 2008; Sharma et al, 2023). Comparatively, firms can have a 'finance gap' when they have insufficient funds to finance their profitable investment opportunities (Mina et al, 2013, p. 870).

Sources of funding access can be either investors and/or lenders from family and friends and crowdfunding (Brown & Mason, 2017; Nicotra et al, 2018). Described as 'facilitators' of an ecosystem by Spigel (2016, p.54) and/or 'providers' by Brown & Mason (2017, p.17), and/or 'community builders' by Rijnsoever (2020, p.4), elements of a thriving financial capital are visible and accessible mass existence of seed and start-up investors, venture capitalists (VC), incubators and accelerators, as well as, angels (Mason & Brown, 2014; Nicotra et al, 2018; Stam & Spigel, 2018; Sharma et al, 2023).

Accelerators are cohort-based programmes of mentorship and educational elements that culminate in a public pitch event or demo day (Banc & Messeghem, 2020). Incubators and venture capitalists are the nodes that fill the gaps of a weak ecosystem according to Rijnsoever (2020) because a financial support network (FSN) is a funding escalator that offers entrepreneurs cash flow which they utilise in expanding business operations, investing in talent, and purchasing real capital equipment. In their paper, Mason and Brown (2014) identified how local investors are a distinguished feature of an entrepreneurial ecosystem because they have exclusive connections with regional and international VC funds that enlarge the pool of investments and provide various types of value-added support.

Vcs also purchase equity stakes in nascent firms to help them to mature into profitable enterprises. They provide funding to start-ups at zero stages of the ideation phase or when the product is still a prototype (Brown & Mason, 2017; Kelly & Kim, 2018; Maroufkhani et al, 2018; Nicotra et al, 2018).

Indeed, it is noticeable that venture capital and accelerator funding are vital for businesses of innovation and impact because those businesses usually carry a risk that makes alternative mediums such as bank credit difficult to obtain. Innovative business models are highly uncertain, and its founders rely on intangible, rather than physical assets, which makes it hard to apply for collateral. Also, risky business models can either fail to commercialise or fail to penetrate the market in the first place which further compounds their uncertain nature and complicates formal credit (Lee et al, 2015; Mina et al, 2013).

On their role in the commercialisation of a prototype, Rijnsoever (2020) said that VC provides valuable knowledge and advice on the transfer of science-based prototypes into a commercially viable product or service. Eventually, VC helps morph tech and science-based organisations into scalable and commercial enterprises of monetary value. Moreover, the valuation assessment of VC is fairly easier than banks which adds further benefit to the role of VC for high-growth start-ups. Banks assuage credit based on technical and scientific information to ensure the availability of cash outflows to repay investments.

Conversely, capitalists are more interested in the value of a business using methods of credit scoring technology and relationship lending that do not particularly focus on sales traction. Both methods have the purpose of gathering soft information about the owner from his/her local community while seeking to build long-term relationships with entrepreneurs. Information is usually gathered from a loan officer to assess the prospects of business feasibility and can consider the entrepreneur's lack of experience (Berger & Udell, 2006; Kelly & Kim, 2018; Lee et al, 2015; Mina et al, 2013).

It is, therefore, a more convenient method of accessing credit for high-growth firms (HGFs) because investors and VC 'give back to their communities' (Stam & Spigel, 2018, p.10) which in return encourages entrepreneurs to engage in risky behaviour and improve the growth and survivability rates of HGFs. As well, not only funding but VC and accelerators offer infrastructure such as subsidised office locations, parking, specialised equipment, expertise, mentorship, managerial support, coaching and networking advice for the scalability of a firm. Those facilities contribute to economies of scale as they help save costs for a start-up that usually has limited resources (Brown & Mason, 2017; Kelly & Kim, 2018; Spigel, 2016).

VCs act as 'ecosystem engineers' that morph an inefficient ecosystem into a productive one (Sun et al, 2019, p.101). The benefit of VC firms to an ecosystem is that they are linked with a complex network of innovation and business groups that offer law firms, universities, consulting, recruitment agencies, and public media outlets. They then draw on their network to help start-ups learn and improve their business models after initially financially investing in a firm. Additionally, they are important to local regions as they help in the flow of resources informally and at arms lengths to start-ups (Sun et al, 2019). Therefore, a region rich with diversified VC firms can help in growing an ecosystem by satisfying the resources required for human, market, and support domains.

However, relying on family and friends as a source of financial capital has been debatable in the EEs literature which makes its role to the EEs inconclusive. On the one hand, Stam and Van de Ven (2021), Spigel (2016), and World Economic Forum (2013) argued that networking is vital to supplant financial resources for an ecosystem because it facilitates access to informal

funding of lenient loans. Conversely, Mason and Brown (2014) believe that traditional sources of funding are more convenient for a new venture *creation* while venture capital *acceleration* requires a burgeoning sector of incubators and accelerators. Mason and Brown (2017) exemplified the role of Y-combinator, TechStars, and Rocket Internet for offering infrastructure of regional growth of Silicon Valley, London, and Berlin to support their argument (Brown & Mason, 2017). Their finding is similar to Prevezer's (2001) examination of the role of venture funding and the ability to use stock markets to raise funds for biotechnology firms in the United States for example.

2.2.1.3) Role of the market domain in the entrepreneurial ecosystems:

If the constituents of the human capital and the financial capital domains were debatable in the literature, those of the market domains were conclusive to imply the elements of the connectivity of distribution channels, easy and open access to markets and density of regional networks (Brown & Mason, 2017; Isenberg, 2010; 2011; Mason & Brown, 2014; Stam, 2015; Spigel, 2016). Mature markets have distribution channels that connect suppliers with customers and producers to fulfil the needs of supply and demand of a product.

A distribution channel involves the activities that ensure the transfer of a product or service between economic agents. Referred to as marketing channels, a distribution channel involves an interdependent relationship between an organisation and other organisation units that take part in the flow of products or services from producers to consumers.

A well-connected channel or what Pekala (2012, p.3) referred to as a 'wide channel' represents complex horizontal networks between intermediaries and vertical ties between organisations (Pekala, 2012). Having dense networks could underpin business-to-business relationships (B2B), business-to-consumer (B2C), business-to-administration (B2A) and consumer-to-consumer (C2C). B2C implies channels that ensure the product reaches the end consumer, alternatively, B2B involves liaising between suppliers to confirm orders, and purchase materials for the final product delivery.

B2A are activities that link a business to public services while C2C involves transactions between end consumers. Distribution channels can either be online or physical. The main advantages of online transactions are decreased cost, saving time, and reaching a wide range of actors while its disadvantages can stem from customer satisfaction and delays in payments (Pekala, 2012). The connectivity of distribution channels within an ecosystem, entails having local markets that are 'open' and 'accessible' (World Economic Forum, 2013, p.9) to international/foreign markets (Mason & Brown, 2014; Nictora et al, 2018). This is because the local connectivity of agents to international ones enlarges market size. This will then facilitate the importation and exportation activities of goods and services.

An impact of such openness of a local market is that it exposes local markets to a diverse range of customers (Nicotra et al, 2018). Large markets, proxied by density and growth of population, offer many opportunities on the demand side when they stimulate firms to satisfy the needs of a diverse range of customers.

Identified as a marketing asset, loyal customers increase company sales and improve organisational learning opportunities and production efficiency through referencing and/or sharing their experiences or feedback in a process known as customer reference (Jalkala & Salminen, 2010; Acs & Armington, 2004). Moreover, the connectivity of local markets to global ones acts as global pipelines that connect local actors of an ecosystem with external partners thus multiplying the opportunities for the local ecosystem access to funding, skills, and knowledge so that resources are boundaryless and, hence, not constrained by cities, borders, or regions (Mason & Brown, 2014; Audretsch & Feldman, 2004; Bathelt et al, 2004).

Markets are characterised by the prevalence of local dense social networks that connect elements of an ecosystem with an entrepreneur (Mack & Mayer, 2016; Rijnsoever, 2020; Purbasari et al, 2019; Spigel, 2016). The EEs framework is presented in the literature as a network that consists of components interacting in a complex manner (Purbasari et al, 2019). Those social networks are nodes that connect persons and organisations through a set of relationships for the mutual sharing of benefits such as fund transfer and knowledge acquisition (Cohen, 2006; Löfsten et al, 2022; Neck et al, 2004).

Indeed, the relevance of social networks to entrepreneurship dates back decades earlier to the seminal papers of Birley (1985) and Aldrich and Zimmer (1986) who drew attention to the lineages of the components (Aldrich & Zimmer, 1986) and/or elements (Birley, 1985) of an entrepreneurship process. Aldrich and Zimmer (1986) believed that new venture creation stems from an entrepreneur's personal network and resource providers.

For an EE, networks are 'a deal-breaker (Mason & Brown, 2014, p.10) because entrepreneurs share expertise, finance, know-how, talent, buyer needs, R&D, delivery possibilities, and supply chain information that realise HGF potential. This sharing of resources happens when a firm or an entrepreneur is embedded within a network, so he gains credibility and legitimate access to resources (Audretsch et al, 2022; Gertler, 2003; Hoang & Antoncic, 2003; Mason & Brown, 2014; Löfsten et al, 2022).

Antecedents such as trust, a mentality of collaboration and co-opetition rather than competition led to ecosystem strength and cohesiveness (Fernandes & Ferreira, 2022). Such trust occurs within an ecosystem through recursive meetings and informal encounters between its actors (Spigel, 2022). Comparatively, a weak ecosystem is governed by a competition mindset and lack of trust that limits its growth (Greve & Salaff, 2003; Gueneau et al, 2022; Hoang & Antoncic, 2003; Spigel, 2022). Sparse networking activities within an ecosystem render it weak as well because it deprives entrepreneurs of resource access such as funding and entrepreneurship knowledge that are crucial for his/her business (Spigel & Harrison, 2018).

On the other hand, a cohesive ecosystem has nurtured components, dense, interlinked, intense, and frequent interactions of dyadic ties between suppliers, entrepreneurs, consultants, capitalists, universities, and business groups. In such network-dense ecosystems, entrepreneurs gain legitimacy by offering multiple resources and playing complementary roles that vary in nature.

Such networks create collisions between entrepreneurs with diverse skills and knowledge bases immanent for his/her business scalability (Aldrich & Zimmer, 1986; Audretsch et al, 2022; Gueneau et al, 2022; Greve & Salaff, 2003; Hansen, 1995; Spiegel, 2016; 2022).

The instrumentality of local networking is that entrepreneurs extract untraded inputs and diffuse beneficiary variations at lower costs than elsewhere (Audretsch & Feldman, 2004). This is beneficial for firms because they usually do not have the internal capacity and enough resources to generate market knowledge and respond to its dynamic changes, so the interactive nature of an ecosystem helps in mediating that gap (Scott et al, 2022).

In their paper, Zardini et al (2020, p.1030) described regional networks as ‘incubators for opportunities’ that lead to learning, evolution, and experimentation through the sharing of resources. Within a cohesive ecosystem, knowledge is shared, absorbed, and assimilated into further external knowledge which helps in the outreach of exclusive information beyond liminal borders (Audretsch et al, 2022; Gueneau et al, 2022). Shi and Shi (2022), as well as Spiegel and Harrison (2018) tapped on the importance of sharing expertise from business failures in a process called entrepreneurial recycling. This happens when entrepreneurs who exited the ecosystem share their business failure stories, so such information is recycled and fed into the larger ecosystem further deepening the skills of its workforce. Such workforce of that failed ventures joins the forces of another new venture so that the larger ecosystem is enriched with invaluable and exclusive expertise. Pittz et al (2021, p.8) defined serial entrepreneurs as ‘dealmakers’ as they offer guidance to nascent entrepreneurs and invest in multiple ventures of budding entrepreneurs. Therefore, their social and spatial embeddedness within an ecosystem is vital for its growth.

In their research in the Shenzhen area in China, Shi and Shi (2022) explained how serial entrepreneurs and individual investors acted as *en-ante* resources in the ecosystem that benefited its growth. Not only are entrepreneurs their counterparts, but another example of an ecosystem network extends to VC ties with an entrepreneur. This happens through a mechanism of ‘meeting and mating’ based on Rijnsoever’s (2020, p.3) conceptualisation. VC ‘meet’ to connect start-ups with other start-ups and resource providers, so those entrepreneurs assess the opportunity of future transactions with whom they subsequently strengthen the ties, partner, and share resources with, in a mechanism referred to as ‘mating’. For example, in their research on the African nations of Morocco, Madagascar, Burkina Faso, Senegal, and Tunisia, Gueneau et al (2022 p.767) concluded that the robust cohesiveness of an EE stimulated regional total entrepreneurial activities (TEA).

Gueneau et al (2022 p.767) identified that the wide distribution of resources at ‘every corner of the ecosystem’ allowed the entrepreneur to pick appropriate resources for his/her project and consequently accelerate ecosystem growth. Table 2.2 outlines the elements within each domain and its role in the promotion of a healthy EE. Also, Figure 2.2 illustrates the elements of the human, financial, and market domains based on the current framework of the entrepreneurial ecosystems theory.

Table 2.2: The elements of human capital, financial capital, and market domains and their relevance to the entrepreneurial

Domain	Elements of domain	Role of the domain in the EEs functioning
Human capital	-Pool of talent -Quality of academic institutions -Placement agencies	-Talents provide firms with knowledge & technical skills.
Financial capital	-Venture capital (VC), investors, seed investors, incubators, and accelerators -Informal networking	-Offer cash flow, mentorship, and discounted loans for HGFs -Can act as a global pipeline with their connections -Focus on value & long-term relationship building rather than scientific valuation
Market	-Distribution channels -Open and accessible markets -Social networking	-Pathways to information-sharing -Exposure to diverse customers to stimulate demand -Global pipelines or connectivity of local markets to international ones

Source: Author

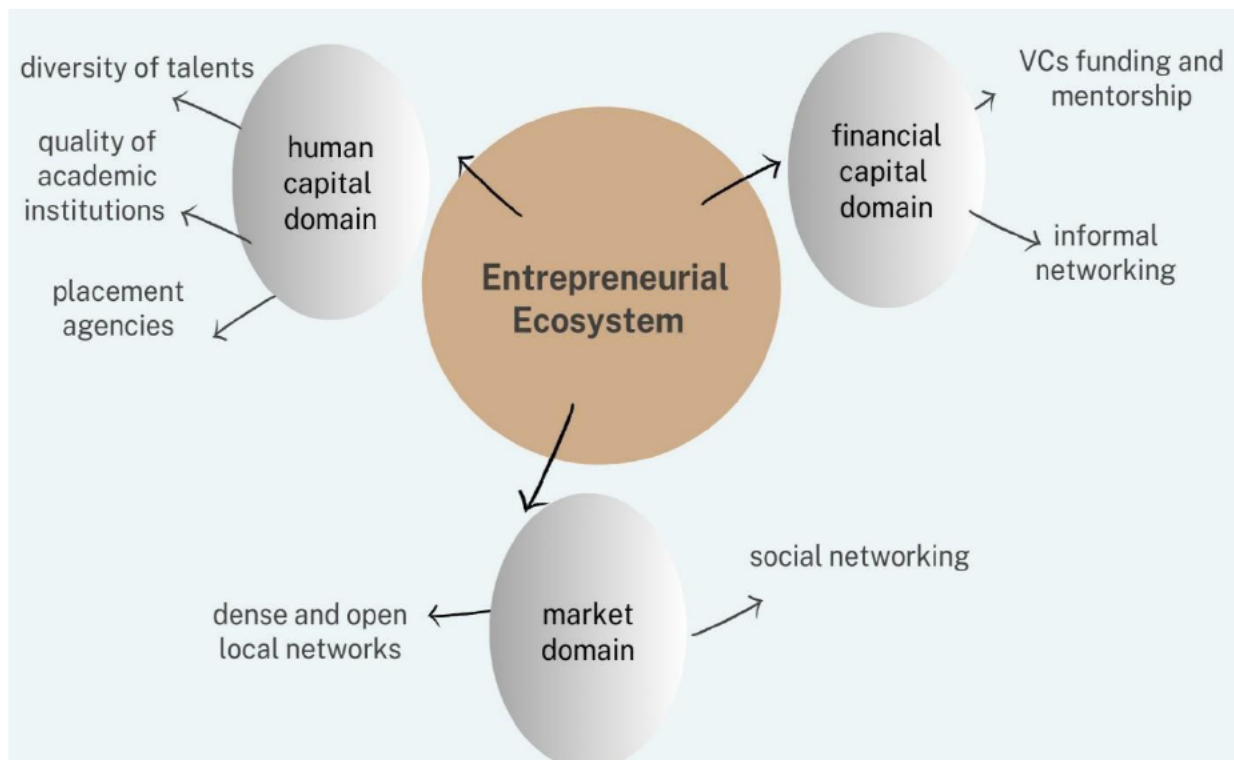


Figure 2.1: The model of the characteristics of human, financial capital and the market domains of the entrepreneurial ecosystems theory. The model is more applicable to developed economies of resource-full domains.

Source: Author

2.2.2) Gap in the entrepreneurial ecosystems literature:

Studying the processes of an ecosystem, or how those elements cohere to deliver multiplied social, technical, and economic value remains understudied in the literature of EEs. As Chapter One deeply explained as well, examining how an individual entrepreneur assembles the resources of an ecosystem remains a persistent gap in the EEs literature as recurrently emphasized by Alvedalen and Boschma (2017), Brown and Mason (2017), Maroufkhani et al (2018), Spigel and Harrison (2018), Stam (2015), Malecki, (2018), Roundy and Fayard (2020), and Spigel (2020) referred to this gap as a relational gap because little is known on how the elements of the ecosystem cohere to produce entrepreneurship of high impact (Malecki, 2018; Spigel & Harrison, 2018; Alvedalen & Boschma, 2017; Spigel, 2022).

An implication of such a relational gap is our lack of understanding of a universal and a general comprehensive framework of the entrepreneurial ecosystems phenomena. Second, there is another gap in understanding the processes of EEs within the specific context of emerging markets with a minimal interest in the Middle East specifically (Cao & Shi, 2021; Maroufkhani et al, 2018). For example, EEs literature remains silent on answering questions of EEs dynamics in emerging economies such as *Where does the local entrepreneur operating in an emerging market extract his/her resources from?* and *How is this affecting ecosystem*

operation? What are the coping approaches to mediate the effect of such a void? Indeed, overlooking EEs processes in EMs carries theoretical and policy implications. Theoretically, it assumes that there exists a singular and universal framework that is convenient for all regions irrespective of each location-specificity.

This implication stands at odds with the idiosyncratic nature of EEs due to their embeddedness in context-specific institutional social, cultural, economic, and political settings. Also, practically the overgeneralization and over-simplicity of the complex phenomena of EEs could confuse policy advisors in emerging economies because it presumes that successful ‘cargo-cut’ governmental interventions that were successful in the developed Anglo-American context could be convenient for emerging economies which is not necessarily the case (Brown & Mason, 2017; Wurth et al, 2022, p.27).

Although there have been recent attempts to investigate emerging economies such as Brazil by Arruda et al (2015), as well as, in rural contexts by Miles and Morrison (2020), yet, the predominate regional-based papers were conducted in the well-established urban hot regional spots of Netherlands, Israel, France, Canada and the United States (Cao & Shi, 2021; Roundy & Fayard 2020; Maroufkhani et al, 2018) although the EEs is a global phenomenon. Indeed, Figure 2.2 indicates the conditions of the emergence of the entrepreneurial ecosystems phenomena which alludes to a literature gap. Extant EEs theory postulates that HIE requires *resourceful domains* of mature markets, a saturated financial system and full information access (Audretsch et al, 2021; Mason & Brown, 2014; Stam, 2015).

Nevertheless, such a context is convenient only for developed economies while absent for EMs that have fundamentally different constituents from their developed counterparts. EMs carry different institutional arrangements of *institutional voids* and alternative structural frameworks that are not convenient for the extant literature framing of entrepreneurial ecosystems phenomena. Those arrangements could impact an entrepreneur's access to resources and threaten the emergence of the entrepreneurial ecosystems phenomena. For example, entrepreneurial ecosystems literature suggests that entrepreneurship of impact is an output of a developed human capital domain that includes talent and skilful labour that offer knowledge for the firm growth, conversely, EMs have a human capital void because they have unskilled labour (Ebrashi & Darrag, 2017).

Second, literature on entrepreneurial ecosystems suggests that HIE requires a coordinated system of financial intermediaries and the existence of a wide network of venture capitalists and angels (Mason & Brown, 2014), however, EMs have underdeveloped and scarce financial institutions or what is known as financial capital void (Ebrashi & Darrag, 2017; Khanna & Palpeu, 2010; Narooz & Child, 2017). Similarly, entrepreneurial ecosystems literature suggests entrepreneurship of impact requires full information access that manifests through dense and strong market networks (Mason & Brown, 2014; Stam, 2015), however, EMs have incomplete information access which characterises their market void. Therefore, based on current entrepreneurial ecosystems literature, EMs would have only weak and sparse EEs (Spigel & Harrison, 2018) because EMs have voids rather than fully developed domains.

As such, to converge the theoretical gap of EEs literature and balance the studies of developed to emerging contexts, this thesis research question is crafted to investigate the process of an ecosystem in the emerging economy of Egypt that is characterised by institutional voids. A main implication of this contribution is that it helps in offering a comprehensive framework of entrepreneurial ecosystems in emerging markets and augments our understanding of its conceptual foundations when findings are contested in other contexts (Zahra et al, 2014; Zahra, 2007; Zahra & Wright, 2011). The next section investigates the second theory adopted for this thesis study; the theory of institutional voids (IV).

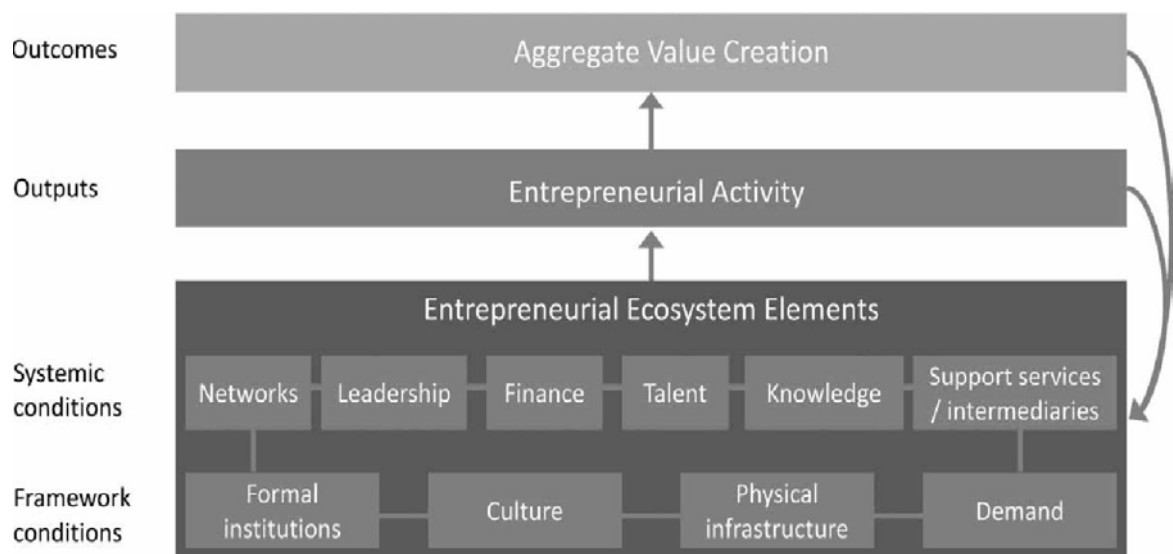


Figure 2.2: A model portraying how the domains of an ecosystem lead to value creation based on the current entrepreneurial ecosystems literature

Source: Stam (2015)

2.3) Institutional Voids (IV) theory:

The theory of institutional voids was developed by Khanna and Palepu (1997; 2010) and then expanded on by Doh et al (2017), Ebrashi and Darrag, (2017), Gao et al (2017), Mair et al (2012), Mair and Marti (2007), Liedong et al (2020), McAdam et al (2019), Narooz and Child (2017), as well as, Parmigiani and Riviera-Santos (2015) who sought to investigate the relevant coping approaches employed by local entrepreneurs to fill their regional voids. The definition followed in this thesis of voids is that IVs are lacunas and not vacuums created by weakness or absence of institutions. Rather they are *gaps* that are filled with *palpable opportunities* that are captured or devised by ambitious entrepreneurs. This is because research on IV theory believes that there exist embedded social and nonmarket exchanges rather than the rationality and price dynamics of the institutional theory (Doh et al, 2017; Dijk, 2018; Gao et al, 2017; Khanna & Palepu, 2010; Mair et al, 2012; Mair & Marti, 2007).

In their book, Khanna and Palepu (2010) outlined five types of institutional voids as product, labour, market, regulations and contracting voids that although impacting regional transactions, yet are full of resources to be exploited. Although voids exist within any type of country and their severity varies from one region to another, yet voids are more prevalent in emerging markets. In the mid-1970s with its roots in sociology, institutional theory examined how various social groups organise themselves in structures to secure their positions and gain legitimacy (DiMaggio & Powell, 1983; Meyer & Rowan, 1977). Generally, institutions refer to *ex-ante* agreements, taken-for-granted assumptions, informal and formal rules that shape behaviour (Bruton et al, 2008).

The association between institutions and entrepreneurship dates to the work of Baumol (1990), North (1990; 1991; 1996) and Scott (1995) who offered noticeable contributions to the theory of institutions. The intersection between theories of entrepreneurship and that of institutions resides in the belief institutional frameworks can either hinder or promote the creation of entrepreneurial opportunities and thus factor in the speed and scope of rates of entrepreneurial entries and level of regional economic activity (Manolova et al, 2008; Luiz et al, 2021). An institutional framework furnishes the elements and their inter-relationships for institutional analysis (Ostrom, 2005). North (1990; 1991; 1996) defined institutions as humanly devised structures that guide social behaviour and govern the cultural and political context. He believed that institutions are formal rules of written law, economic regularities, and political structure, as well as, informal rules that include customs, codes of conduct and culture.

He understood that both rules are harmoniously enmeshed to maximise the wealth creation of an individual. This happens when all players cooperate for their mutual benefit. It is therefore understandable how his definition of institutions employed the concept of gaming, alluding to how players should possess a combination of skills, strategy, and foul means to eventually win the game. On the other hand, Scott (1995) offered a well-formulated typology of institutions. He broadened the scope of non-codified informal institutions to include a cognitive underpinning that was not found in North's (1990) concept. Scott (1995) divided institutions into three pillars regulatory, cognitive, and normative. The regulatory pillar deals with formal rules that guide a group, and it implies behaviour of sanctioning, monitoring, coercion, and rewarding in return for compliance or deviation.

The second normative pillar deals with uncoded norms and values that specify how organised behaviour should be performed. The final pillar is the cognitive one that implies language, symbols, signs, and gestures that are group-specific about another. Scott (1995) then proposed his articulation of institutions based on the culture, regulative and normative pillars that regulate resources, improve economic performance, and give social life meaning. Only recently has the institutional theory been exported to the nascent EEs perspective led by Audretsch et al (2021). Audretsch et al (2021) sought to investigate EEs using Scott's (1995) lens believing that regulatory, cognitive, and normative pillars impact the actors within an EE to lead to either productive or unproductive entrepreneurship. This is because the strength or the weakness of those pillars either help or hinder resource access which in turn impacts the shape and level of firm formulation (Audretsch et al, 2021).

However, Audretsch et al (2021) focused on the classic approach of institutional theory. For example, Audretsch et al (2021) concluded that developing economies have inefficient regulative, cognitive, and normative pillars that impede ecosystems, conversely, high-quality institutions of mature EEs lead to productive entrepreneurship. Surprisingly, both papers did not investigate how local entrepreneurs thrive within such an unappealing institutional framework; a gap this thesis mediates. Indeed, the nascent IV theory is not the same as the classic institutional theory because both theories offer different perspectives on the dynamics of emerging economies. On the one hand, the IV theory pushes beyond the restrictive boundaries of the classical institutional theory and focuses on the adaptive behaviour of *local* entrepreneurs to mediate their regional voids.

Research on IV argues that local entrepreneurs can tap into their institutional hurdles and convert those challenges into opportunities for their benefit (Doh et al, 2017; Ebrashi & Darrag, 2017; Heeks et al, 2021; Khanna & Palepu, 2010; Mair & Marti, 2009), or arguably set by themselves their own rules of the game when institutions fail at such. On the other hand, the classic institution theory describes the business environments of emerging economies as a given market failure that constrains business growth. North (1990), as an example, described emerging economies as being poor because their institutional constraints do not encourage productive activity.

The extant framing of the EEs and associating its effectiveness with the maturity of its domains advocates the perspective of the classic institutional theory rather than void. This is because the literature on EEs suggests that productive entrepreneurship requires efficient markets, full and accessible information, human capital, and mature financial systems with coordinated activities. For example, literature on EEs defines productive entrepreneurship as the outcome of opportunities created by greater government support and efficient formal institutional frameworks that are accessible to all the agents of an EE (Audretsch et al, 2021; Stam, 2015).

Those mature economies have institutional arrangements and/or incentives that lower transaction costs, reduce uncertainty, and enforce contracts. Conversely, emerging markets have weak institutional arrangements such as technical inadequacies, inefficient regulatory systems, weak, soft, and under-represented formal institutional framework, weak governance structures, difficulty assessing quality products and significant information asymmetries which

complicate contracting and business exchange (Gao et al, 2017). Those weak or absent institutional arrangements increase transaction costs, make them uncertain and lead to unproductive entrepreneurship (Baumol, 1996; Coduras et al, 2018; Estrin et al, 2019; Ge et al, 2019; North, 1990; Narooz & Child, 2017; Samadi, 2018; Liedong et al, 2020; Luiz et al, 2021).

This approach is different from the perception of the IV theory of emerging markets. The classic institutional theory misses questions of *how local entrepreneurs operate when their business environment is not supportive? Who intervenes to help those entrepreneurs and firms grow? Who has the agency when regional governments withdraw?* The implication of the current framing of emerging markets from the classic institutional theory lens is that it offers a pessimistic and constraining perspective on emerging economies. This pessimism occurs because the literature of classic institution theory ascribes states of weaknesses and poverty to those economies compared to the strengths of the developed counterparts. Bounded by a cause-and-effect context, the classic institution theory describes emerging economies as having weak institutions which in effect leads to growth hindrance and unproductive entrepreneurship. The theory, however, does not study the dynamics of those economies or how local entrepreneurs cope with their unappealing social, economic, and political conditions and rectify their market weakness.

Another practical impact of such articulation is that it largely overlooks and skims the strategic actions and the adaptive behaviour undertaken by the resilient 'paragon' (Castellacci, 2015, p.44), 'proactive and innovative' (Voeten et al 2017, p.4) *local* entrepreneurs of emerging markets and how they workaroud (Sydow et al, 2022) their regional voids. The prominence of voids theory is that it focuses on how emerging economies are rich in opportunities rather than poor in context as North (1990) argued. Entrepreneurs, being ambitious and goal-oriented, can define and creating opportunities regardless of the challenges of their institutions. This is as they engage in a process of going back and forth between their objectives and their environment, so this adaptive behaviour enables them to fill their voids by drawing on regional resources to create opportunities. They can fill their regional voids for commercial gains, moreover, technology entrepreneurs can rely on their prowess to create new business models (Mair et al, 2012).

Although voids could lead to negative innovation, adaptive entrepreneurs could disrupt the process of production when they innovate and create new and alternative ways to fill their regional voids. Entrepreneurs can successfully introduce new products and services which facilitate the interaction between buyers and sellers in different markets and reduce transaction costs. Although those innovations might not serve market demand, they offer substantial value by bringing many market agents together so they can collectively perform efficiently (Ashwin, 2012).

Certain approaches to filling regional voids that have been addressed by the literature were microfinance, bricolage, and social mobilisation of Bangladeshi women (Mair & Marti, 2007). Moreover, in another context of Egypt Narooz and Child (2017) identified that the owners of Egyptian small and medium enterprises (SMEs) behaviourally adapted to their regional hurdles by maintaining personal connections with the 'right' people of power. Similarly, Ebrashi and Darrag (2017) revealed that social entrepreneurs in Egypt employed strategies of lobbying, offering social support, and renovating public service to cope with their institutional challenges. Extant literature on the nascent IV theory offers three findings, the first is that it offers an expansive approach to investigating institutions in emerging markets as it balances the studies of the context of emerging economies with the innovative approaches of local entrepreneurs. Therefore, literature on IV studies the conditions of emerging markets, as well as how local entrepreneurs cope with their conditions and/or what Khanna and Palepu (2010) called filling regional voids, again, because voids are not vacuums but resourceful gaps.

Second, scholars of IV consider entrepreneurs as catalytic agents and primary actors in their environments because they are responsible for creating opportunities as a responsive measurement to their regional hurdles. Interestingly, acknowledging the role of entrepreneurs as focal points in their business environments is a common finding between EEs and IV theories. In his paper, Feldman (2014) corresponds to a gap in the literature on regional economic development that persists in overlooking the role an entrepreneur plays in defining the character of a place. This is because they are feeders of an ecosystem that engineers the resources to create a conducive social and economic environment for their firm growth. Such roles stem from their exceptional ability to spot opportunities that are not

perceived as such by others (Alvedalen & Boschma, 2017; Feldman, 2014; Stam & Spiegel, 2018; Wurth et al, 2022). It is therefore vital to deeply understand the active role of local entrepreneurs as 'regional champions' (Feldman, 2014, p.12) that promote business growth and the stewardship of regions despite the hurdles of their institutional frameworks.

2.3.1) Gap in the institutional voids (IV) theory:

The third IV literature finding which alludes to a literature gap, is that extant research on IV is predominantly associated with fields of research of international business (IB) and social entrepreneurship as exemplified in the work of Ebrashi and Darrag (2017), Khanna and Palepu (2010), Parmigiani and Riviera-Santos (2015), Mair and Marti (2007), and Webb et al (2010).

This means that extant literature on IV studies how multinational companies (MNCs) fill regional voids when they attempt to geographically expand in EMs. It therefore considers voids and how they are filled from the perspective of MNCs rather than local businesses (Khanna & Palepu, 2010). Moreover, another stream of papers is concerned with social entrepreneurship rather than for-profit entrepreneurship. For example, IV papers studied how local social entrepreneurs sought to fill their regional gaps rather than for profit type of entrepreneurs as evident in the work of Ebrashi and Darrag, (2017), Mair and Marti (2007), as well as Parmigiani and Riviera-Santos (2015).

2.4) Social capital (SC) theory:

In its simplest form, SC is the engine whereby entrepreneurs rely on to extract resources. It is built on the interactive nature of human beings and the economic belief that resources are scarce and because one person cannot have full ownership of resources, humans interact with each other to share resources for the benefit of communities (Claridge, 2018; Fine, 2008). SC attempts to investigate the social dynamics of interaction that go beyond the utility and rational choice perspectives of the classical economics theory of entrepreneurship (Claridge, 2018; Fine, 2008). The classic economic theory considered humans as merely buyers and sellers in a market, but social capital theory expanded on that belief by highlighting how humans interact on individual, family, and community levels for the improvement of a social unit.

The term social comes from the Latin word '*socius*' or friend and comrade alluding to the humanistic nature of SC theory and social relations (Uphoff, 2000). Literature on SC discusses social institutions of schools, universities, public institutions, and departments of government (Fine, 2008). Also, the language used in SC literature reflects feelings of union, gratitude, respect, gifts, favours, values of belonging and ties of community, friendship and family that underpin social networking as in the work of Adler and Kwon (2002), Bourdieu (1986), Bowles and Gintis (2002) and Omeihe (2023).

Social capital was first mentioned in the work of Hanifan (1916, p.130) in his research on communities in schools, referring to it as the 'mutual sympathy of families who make up a social community' (Breuskin, 2012; Hanifan, 1916). Social capital theory has its roots in sociology and was exported to management studies when Loury (1977) examined in his seminal paper how social capital facilitates the acquisition of human capital assets that of education and income. Moreover, since the 1980s research on social capital garnered wide academic attention propelled by the intellectual developments of the specific authors of Bourdieu (1986), Coleman (1986), Putnam (1993) and Lin (2001) when they summarised the considerable significance of networks on business processes (Claridge, 2012; Häuberer, 2011).

SC theory is very complex, and it does not have a consistent definition not because of a lack of understanding of the theory, but rather because it is a praxis having its roots in economics, sociology, political science, and business (Bhandari & Yasunobu, 2009). Praxis is a code that refers to disparate, yet interrelated areas of research that might facilitate the cross-fertilisation of ideas from a wide array of disciplines (Durlauf & Fafchamps, 2004).

However, this led the theory to have a plethora of hybrid, 'chaotic' and redundant definitions (Fine 2007, p.572) because of the multifaceted approaches and the various backgrounds of the scientists studying social networks. This praxis led the theory to have multiple dominating lineages, the first lineage is the predominant sociological that covers the network structure as in the work of Adler and Kwon (2002), Burt (1997), Coleman (1988) and Granovetter (1985).

Second, is the lineage that deals with SC values that govern networking based on trust, altruism and cooperation as in the work of Fukuyama (1995) and Uphoff (2000) whereas a third lineage led by Putnam (1993) discusses nationwide civic associations and a final lineage deals with the resources embedded within a network as evident in the work of Durlauf and Fafchamps (2004), Granovetter (1983; 1985), Lin (2001), Nahapiet and Ghoshal (1998) and This final lineage is the focus of this thesis and it can be referred to as the business and management lineage because it discusses the embedded resources shared between social ties and economic benefits gained as such.

Pierre Bourdieu (1986) laid down the definition of SC as a reference frame and was described by Fine (2008, p.451) as the 'modern originator of the term'. Portes (1998) argued that Bourdieu's (1986) conceptualisation of SC remains the most theoretically refined in the sociology discourse. Bourdieu (1986) offered a typology of capital as economic that can be monetised for utilitarian benefit, and/or cultural based on the quality of education and knowledge, as well as, social.

Bourdieu's (1986) definition is rather sociological in nature as he described relationships to be socially instituted and governed by certain names, titles, or tribes (Bourdieu, 1986). The sociologist Bourdieu (1986) offered a general definition of SC as the aggregate of the actual or potential resources which are linked to the possession of a durable network of institutionalised relationships of mutual acquaintance and recognition to membership in a group which provides each of its members with the backing of the collectively owned capital.

Indeed, Bourdieu's (1986) work has been criticised for focusing only on the complexity of social environments which in effect made the popularisation of his concept more convenient for sociology circles rather than other fields of research compared to Coleman (1988) and Putnam (1993) who are dubbed as the 'the superstars of the theory' (Fine 2008, p.451). Also, the fact that his initial treatment of SC was written and published in French limited the audience of his work in the English-speaking world (Portes, 1998; Dika & Singh, 2002; Claridge, 2018). As well, SC carries another political lineage led by the political scientist Robert Putnam (1993).

Putnam (1993) believed that social capital operates at an aggregate level, so he contradicted the belief of Bourdieu (1986) that social capital is based on personal and group possession of resources. Putnam (1993) defined SC as elements of social life such as networks, norms, and trust that enable participants to act together more effectively to pursue shared objectives. In his analytic treatment of SC, he associated it with civic and nationwide participation in associations for the public good and the promotion of democracy. Although he stated that his articulation of civic engagement is not specific to political spheres, yet he still believed that social capital is the stock of modern political life; a matter which fosters the political background of his conceptualisation.

Moreover, Putnam (1993) built his articulation of SC based on the American context that witnessed a steady decline in civic participation and engagement by 25% to 50% which is threatening American life. He argued that such decline is attributed to reasons of women's economic independence, the business of economic life, disruption of family ties, the rise of TV

consumption and the political context of the 1960s which promoted reductions of memberships from prominent associations. Even though Putnam (1993) is regarded as the most cited theorist in the field of social sciences of the decade (Fine, 2008), yet his nationwide perception of SC lacks a fundamental concept and carries a tautological flaw because he built his theory on cause-and-effect or a direct association between civic participations and society wellbeing without offering deeper clarifications (Portes, 1998; Claridge, 2018).

A more systematic and structuralist lineage to SC was offered by Coleman (1986; 1988). His articulation of the theory is more similar to that of Bourdieu (1986) than Putnam (1993) as the latter highlighted nation-level association whereas both Coleman (1986; 1988) and Bourdieu (1986) focused on how the individual self-interest stimulates collective action, hence, how SC is more for the individual (micro) and macro (group) public and collective good which Coleman (1988) recurrently highlighted in his research.

Coleman (1988, p.98) defined SC to consist of a variety of different entities with ‘two elements in common that consist of some aspect of social structures, and they facilitate certain actions of whether persons or corporate actors within the structure’. Compared to other theorists, Coleman (1986; 1988) offered a more systematic explanation of SC when he explained the mechanism of interactions between a social structure and the norms of trust, honour, selflessness, and social support governing a social structure. He suggested that a social structure is guided by expectations and obligations or what Coleman (1988, p.103) called ‘credit slips’ that make a social structure self-sufficient.

Coleman (1988, p.103) further exemplified this interaction by saying that 'if A does something for B and trusts B to reciprocate in the future, this establishes an expectation in A and an obligation on the part of B'. This obligation can be conceived as a credit slip held by A for performance by B. Coleman's (1988) approach to SC is a structuralist one as he presented two diagrams to underpin a social structure; one that has open relationships and another more efficient structure of closed networks which he believed to offer better functionality due to its guiding norms such as trust.

However, in his paper, Portes (1998) argued that despite Coleman's (1986; 1988) undeniable merit in explaining SC, yet, he missed untangling the confusion between SC processes, SC resources, and the types of resources themselves. Recent attempts to investigate SC include the prominent theoretical contributions of Adler and Kwon (2002), Uphoff (2000) and Nahapiet and Ghoshal (1998). Adler and Kwon (2002) sought to offer a holistic and comprehensive framework of SC theory based on the synthesis of prior literature definitions, whereas Nahapiet and Ghoshal (1998) and Uphoff (2000) sought to offer a deeper understanding of the mechanisms of operation of SC or its functionality. Uphoff's (2000) model carried a striking resemblance to that of Nahapiet and Ghoshal (1998) as both highlighted how a social unit is governed by normative/cognitive aspects that are reinforced by unwritten norms, culture, and language or what the latter referred to as intellectual element.

However, both theorists varied in terms of defining the structural aspect of SC as Uphoff (2000) regarded the structural aspect to imply written rules and regulations, whereas Nahapiet and Ghoshal (1998) referred to the structural element as the network configurations between actors of a system. Also, they added a third dimension of the relational aspect that deals with norms and values guiding a network which Uphoff (2000) categorised under the cognitive aspect.

On the other hand, Adler and Kwon's (2002) contribution to SC was producing a synthesis of the prominent definitions of SC into internal/bonding, external/bridging or neutral ties. They ascribed the literature definitions into a bridging aspect of tying the central actors to other actors, whereas another bonding aspect focuses on the collective actors' internal characteristics. The final group of definitions are neutral because they consider SC to vary based on the perspective of the individual and the situation-specificity.

Identifying how goodwill is engendered into the fabric of social relations, Adler and Kwon's (2002) contribution resides in offering a more balanced approach to SC when they outlined the risks involved in SC besides its benefits. Indeed, their articulation of a negative aspect of SC resembles that of Bourdieu (1986) who shed light on how unequal opportunities can arise when the concentration of resources is tied to class, gender, and race. Similarly, Adler and Kwon (2002, p.21) believed that social relations can lead to 'superior information' access and power. They also extended to such negative articulation by arguing that SC is a costly form of capital as it requires constant renewal and investment of ties, whereas the bonding ties of solidarity can lead to information redundancy.

Regardless of the multi-dimensional perspectives of SC and its multiple lineages, four beliefs have been shared in terms of that social capital is built upon one's own family, friends, and acquaintances. Those networks can be informal such as those binding the close-knit family and friends or formal such as those formulated at workplaces, markets, or between professional associations such as that of researchers, bankers, and lawyers (Birley, 1985; Danis et al, 2011; Fojs et al, 2017; Klyver & Arenius, 2022; Mian & Qureshi, 2016).

Second, the structure of networks varies in terms of their intensity, density, and functionality. This is because there is an ongoing debate and an inconclusive finding on whether strong ties or weak ties contribute to better functioning of a social unit, however, Uzzi (1999) remains the distinct author that offered complementarity of both ties rather than their compartmentalization. Ties are strengthened when they imply emotional intensity, mutual confiding, trust, and reciprocity of services that are built through a considerable amount of time.

Comparatively, a weak tie or what Uzzi (1999, p.483) referred to as 'arm's length' characterises less frequent and not prolonged interactions which only serve the transaction at hand (Granovetter, 1983; Uzzi, 1999). On the one hand, a stream of papers such as that of Durlauf and Fafchamps (2014), Krackhardt (2003), Totskaya (2015) and Xu et al (2010) have been advocating the value of relationship bonding or embeddedness in a dense and a tight knit of a cluster of family and friends. This occurs to retrieve opportunities, maximise revenue and share information, especially in the context of emerging markets.

Alternatively, another stream of papers led by Burt (1992), Brown and Reingen (1987) and Granovetter (1983; 1985) counter-argued the strong-tie theory. They advocated those strong ties lead to fragmentation and incoherence because the information that is tied to homophily (Brown & Reingen, 1987) is likely to be the same (Granovetter, 1985) and/or redundant (Burt, 1992). Comparatively, weak ties lead to social cohesion and diffusion of information whereby its absence leads to a system of disjointed groups that inhibit the flow of information. The role of networking in the specific context of emerging markets has been widely pronounced in the literature on social capital in particular. Moreover, in their comparative study between developed and emerging countries, Danis et al (2011, p.402) identified how associational activities of strong ties in the latter provided an entrepreneur with 'critical' and 'preferential' resource access unlike the weak networks within developed economies (Danis et al, 2011).

The third finding is that relationships are built on a shared set of values and norms gathering actors of a unit. Such values include cooperation, selflessness, and trust (Uphoff, 2000). Trust has been the most widely shared and consistently referenced value in the literature on SC. Its instrumentality is enacted when parties of a network keep no books to record exchanges so any arising imbalances are stored and maintained with parties intuitively believing that they will benefit in the long run (Johannisson, 1988). Finally, the output of such interactions is the mutual benefit of agents within a network. This is because a network is a hub rich in resources that are exclusive to members of a unit.

The 'entrepreneur as a network man' (Johannisson, 1988, p.97) relies on his/her networks to access information, motivational and material resources acknowledging that he/she has limited resources in the first place (Coleman, 1988; Jenssen & Koenig, 2002; Johannisson, 1988; Lin, 2001; Sarfaraz et al, 2018; Lee et al, 2019). The fourth finding argues that social embeddedness produces economic and macro social benefits, as well as reinforces mutual gain because resources are mobilised, accessed and/or borrowed (Coleman, 1986; Lin, 1999; 2001). The definition employed in this thesis is that of Lin (2001) who defines social capital as resources embedded in a social structure that are accessed and/or mobilised for purposive actions (Lin, 1999; 2001). Resource-embeddedness involves activities and actions whereby members of a network exchange either material or symbolic goods (Lin, 2001).

Lin's (2001) definition is chosen because it is situated within the fourth business and management lineage of SC literature that deals with resource-embeddedness within a social unit and its economic impact on both firms and entrepreneurs. This is evidenced by the keywords used in his articulation of the concept. First, it has a keyword of resources that underpins the instrumentality of a social network, second, it has the keyword of embeddedness which underpins the concentration of resources within a network. Third, it has the keyword of purpose which underpins the impact of resource access for members of a network. Lin (2001, p.46) described the purpose of social actions to be 'instrumental action' because it triggers actions and reactions from members of a unit that leads to more allocation of resources (Coleman, 1986; Lin, 2001).

This definition coincides with the aim of this thesis because it explains how entrepreneurs rely on their embeddedness to fill their regional voids to produce high-impact entrepreneurship.

Table 2.3 illustrates the most prominent definitions of SC theory, their contribution to the literature, and the corresponding lineage of each definition.

Table 2.3: A table outlining the most prominent definitions of social capital (SC) theory

Theorist	Definition of Social Capital (SC)	Contribution to literature	Perspective of definition
Pierre Bourdieu (1986)	SC “is the potential resources linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance or recognition” (1986, p.248)	First systematic analysis of the concept	The general perspective is more sociological in nature based on class, race and gender.
Robert Putman (1993)	SC refers to “features of social organisation, such as trust, norms, and networks that can improve the efficiency of society” Putnam, (1993, p.167)	Civic understanding of SC about democracy in the US	Political perspective
Nan Lin (2001)	SC are “resources embedded in a social structure which are accessed and/or mobilised in purposive actions”. Lin (2001, p.29)	Discussing the resources within a unit	Managerial and utilitarian perspective
James Coleman (1988)	SC “inheres in the structure of relations between actors and among actors. It is not lodged either in the actors themselves or in physical implements of production” (1988, p.99)	Offering a structuralist approach by identifying how closed & open networks operate through a model of interactions between A, B & C	Structuralist perspective

Janine Nahapiet and Sumanta Ghoshal (1998)	SC “as the sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual social unit” (1998, p.243)	They pioneered in offering a three-dimensional perspective to social capital; relational, structural and intellectual/cognitive capital.	General theoretical perspective
Samuel Bowles and Herbert Gintis (2002)	SC “implies concern for one’s associates, a willingness to live by the norms of one’s community and to punish those who do not” (2002, p.2)	Explaining the community governance of a social unit	Values perspective
Mark Granovetter (1973)	SC “implies the impact of micro-interactions on the macro unit” (1973, p. 1378)	Did not define SC. Rather, he pioneered in examining the network density and intensity of interactions by arguing that weak ties lead to better outcomes.	Structuralist perspective
Ronald Burt (1992)	SC “is the arbiter for competition and success” (1992, p.9)	He introduced the concept of structural hole, as a relationship of non-redundancy between two contacts, so that bridging two networks improves the economic outcomes	Structuralist perspective
Paul Adler & Seok-Wookwon (2002)	SC is “where resources lie as other resources in the social structure within which the actor is located. Adler & Wookwon” (2002, p.18)	Pioneered in identifying dimensions of social structure	Structuralist perspective
Alejandro Portes (1998); Portes and Patricia Landolt (2000); Portes (2000)	SC is “the ability to secure resources by membership in social networks or larger social structures” (1996 p.532)	Pioneered in showing the negative aspect of SC theory and its definition as autological statement because networks can lead to unfavourable	The negative side of social capital

outcomes such as discrimination and conformity

Source: Author

2.4.1) The dark side of social capital:

Indeed, the mainstream papers in the literature of social capital theory argued for the bright side of networking for its impact on market entry, diffusion of information, opportunity recognition, and/or value creation which are invaluable to the progression and survival of firms (Danis et al, 2011; Sarfaraz et al, 2018; Uzzi, 1999). Nevertheless, it was only two decades ago when a less pronounced stream came to light counterarguing the paradoxical dark side of social capital. This stream of research does not invalidate the prominence of resource-embeddedness within a network, but it offers a balanced approach towards understanding the impact of networking on both the firm and the society. It corresponds to Portes's (2000) suggestion that social capital does not always equate with a positive outcome because in some cases the ability to use social capital could yield negative outcomes. This happens when resources are rather unethical, poor or of low quality (Portes, 2000).

Woolcock (1998) reflects on such an unfavourable impact when he identified how wealth could be acquired or redistributed through trafficking, plundering and/or looting.

Literature on the dark side of social capital in business demonstrated that networking could lead to a negative impact on the aggregate economy level. This impact is represented by the disintegration of firm identities, personal exploitation, ethnic or religious fractures, limitation of individuation in favour of conformity, an increase in crime rates and unequal distribution of resources within an economy (Baycan & Oner, 2022; Dasgupta, 2005; Portes, 1998; 2000).

For example, the leading author in that vein, Portes (2000) considered that the concentration of privileged resources within a certain sector leads to unfair distribution of resources within an economy because it deprives outsiders of its benefits. Dasgupta (2005) extended to this contention by exemplifying that access to common resources has been privileged for the Hindu wealthy and rich elites in Indian villages. This could imply the poor treatment of those who are marginalised and who do not comply with community rules since conformity is the price of membership. This insider-outsider distinction could impact societal integration and have grave implications of hostility toward ethnic and religious minorities (Bowles & Gintis, 2002).

In the same vein, Bourdieu (1986) exemplified that social capital is associated with statutes of privilege and credentials compared to other sectors of society as it could be based on wealth, class, and race. Moreover, members of a family within a certain geographical location could be discouraged from physical movement and connectivity to wider regional networks in what

is known as 'amoral familism' (Woolcock, 1998, p.172). This happens when morals are ascribed to a certain group of people or in another circumstance when self-interest governs certain group interactions which eventually undermines the efficiency of economic exchange in what is called 'amoral individualism' (Omeihe, 2023; Woolcock, 1998, p.172).

In a similar vein, yet from a firm perspective, networks were described by Edelman et al (2004) as a trap and by Portes (1998) as a blindness assertion or what Omeihe (2023, p.42) referred to as the 'principle of homophily'. Those metaphors allude to how the closure of networks or their lack of connectivity to other networks could contribute to knowledge redundancy. This happens as closed networks inbreed and gather like-minded and homogenous individuals with similar cultural and national attributes. Conversely, open networks that connect multiple groups aid in the acquisition of diverse information, skills and competencies that could promote collaboration (Edelman et al, 2004; Baycan & Oner, 2022; Pillai et al, 2017). Edelman et al (2004) in their research on British industrial firms reflected on how the pitfall of closed networks compromised the sense of communion and belonging to a firm mainstream identity by fostering a culture of disparate groupings. Eventually, the dispersion of firm identities and the stemming of the overflow of new ideas across organisational units would inhibit the team learning process which could eventually lead to operational inefficiencies (Baycan & Oner, 2022; Portes, 2000; Pillai et al, 2017).

2.4.2) Gap in social capital literature:

Social capital theory has received much criticism geared at both the theory itself and the literature written on the theory. Claridge (2018) argued that SC is neither social nor capital nor is it a theory in the first place. First, social capital has been argued to be commoditized and colonised by economists as a representation of the alliance between social sciences and the rational choice theory of economics. This is because the theory is perceived in terms of economic outcomes and opportunities extracted from the utilisation of a network rendering the term *not quite* social (Fine, 2002).

On the other hand, social capital is based on a misleading metaphor because it cannot be considered capital. This is because it does not belong to one individual, rather its value lies in how a group functions to deploy their resources, so SC does not classify as an owned source of capital such as land and labour (Claridge, 2018; Haynes, 2014). In such a vein, the theory has received criticism for rebranding loose sociology themes of trust, reciprocity, embeddedness, group participation and community to be given a more appealing conceptual 'garb' (Portes, 1998, p.21). Similarly, the extant literature on SC has received criticism as well because it lacks systematic investigation of the resources inherent within a social unit (Haynes, 2014).

The theory has been described to be fundamentally flawed because it lost the explanatory power of the process that makes social capital (Fine, 2002). Portes (2000) referred to this gap of SC in the literature as a circular tautological problem that makes the separation between access to local resources and the ability to utilise such resources unclear.

It therefore confuses the reader on the cause and the effect of the resources within a unit (Haynes, 2014; Lin, 2001; Volker, 2021). For example, extant literature refers to resources as an abstract benefit without unpacking those resources into certain benefits. For example, questions of *What type of resources are beneficial for local entrepreneurs? How does social capital benefit communities? How does resource access vary from one group of entrepreneurs to another and how they could be used differently?* remain unanswered in the literature. Accordingly, this thesis seeks to disentangle the resources and investigate three specific benefits extracted from social capital in terms of; recruitment, financial supply and information access. Therefore, the thesis's second research question is crafted to understand *What role social capital (SC) plays in mediating the voids for both ecosystems?* The next section represents the integrative framework of this thesis.

2.5) An Integrative framework of the three theories based on literature gaps:

This thesis's theoretical framework contributes to the literature by offering both; *general* and *specific* contributions. Generally, this framework welds the three theories of entrepreneurial ecosystems, institutional voids, and social capital by suggesting that entrepreneurs in EMs utilise their social capital to access three specific resources of recruitment, finance, and exclusive information. As such, the intersection of those three theories offers a holistic model of our understanding of the processes of EEs in EMs. The theoretical implication of this integrative model is capturing the complexity of the EEs phenomena, as well as, offering multi-dimensional insights to high-impact entrepreneurship.

Moreover, another manifestation of such contribution is that it specifically fills the gap of each of those theories detailed before. First, by contextualising the EEs theory in EMs, this model expands our understanding of the EEs theory by contesting the extant model of the *resourceful-domain* framework and investigating the process of ecosystems in an alternative context of *institutional voids*. Second, the model leads in employing institutional voids theory in describing the contexts of emerging markets. The utilisation of institutional voids theory implies that it investigates *how* entrepreneurs in EMs rely on their innovative approaches to adapt to the challenges of their environments.

This specific theory balances our understanding of EMs by offering both; a *descriptive* approach to the contexts of EMs, as well as another *analytical* one on how those voids are filled by savvy regional entrepreneurs. Finally, the suggested theoretical framework addresses the tautological gap of social capital theory. It untangles resource availability from their mechanisms of access, utilisation, and operation by delineating a process framework of antecedents, approaches, output and outcome. The next section details the specific approaches of how social capital is employed to fill each respective institutional void.



Figure 2.3: How the theoretical framework fills the gaps of the entrepreneurial ecosystems, institutional voids and social capital theories

Source: Author

2.5.1) Social capital to fill human capital institutional voids:

The EEs literature identified that having a wide pool of talented employees, placement agencies, as well as quality of academic institutions characterise the human capital domain (Chaudhuri et al, 2022; Mason & Brown, 2014; Mack & Mayer, 2016; Stam 2015; Spigel, 2016; World Economic Forum, 2013). This is because human capital is talented knowledge bearers and intangible assets that can hardly be replaced or traded (Chaudhuri et al, 2022; Lee et al, 2004; Ostergaard & Marinova, 2018).

Their talent is represented in their job-technical skills and business competencies such as sales, management, marketing, and business development (Stam & Spigel, 2018). However, emerging markets are characterised by human capital voids. Such voids manifest in a lack of placement agencies, scarcity of talent, as well as unskilful labour supply that is not equipped with the necessary set of skill-base required by their employers (Ebrashi & Darrag, 2017; Parmigiani & Riviera-Santos, 2015). An impact of those human capital voids is limiting firm growth (Khanna & Palepu, 2010) and could potentially threaten the functioning of an EE or lead to weak ecosystems.

It is, therefore, argued that through utilising social capital, entrepreneurs can be supplied with the resource of human capital which is rarely found elsewhere. Social capital then becomes a prominent source in scouting qualified talent when there are lack of placement agencies and a scarcity of talent in emerging markets (Stuart & Sorenson, 2005).

Approaches that entrepreneurs rely on to access talent from their network and, therefore, fill human capital voids can be through 1) direct recruitment from family and friends, 2) endorsement from an investor or current employer or/and 3) circulation of the advertisement about a job. Circulation of information about a job happens when peers learn about new job opportunities and pass on this information to their co-workers. Such information addresses job details and procedures for application (Arbex & O'Dea, 2011). Those approaches underpin the ability of social capital to compensate for imperfect market inefficiencies and the lack of placement agencies that describe the context of emerging markets.

Antecedents that aid in the circulation of job-related information are the structural positioning of agents, their strong occupational prestige, education, and their reputation. Those antecedents increase the chances that the job seeker will get high-prestigious occupations because of the influence exerted by the referrer (Granovetter, 1983; Fernandez et al, 2000). For example, structural positioning earns the referrer legitimacy because the referrer will not risk his reputation by endorsing a non-qualified referee (Fernandez et al, 2000; Johannisson, 2008).

From another perspective, talented professionals are rather sceptical about joining a new and unknown venture compared to well-established firms. This scepticism is exacerbated by market information asymmetry about a new start-up and the ambiguity of its success chances. Therefore, when an entrepreneur establishes a reputation in a social network underpinned by values of trust and respect, he/she would be able to compensate for such scepticism because of the optimism the qualified professional shall have about him/her.

Such optimism is fostered by the reputation of the personality of the founder and the prospects of his/her firm success that are circulated in social networks (Lin et al, 1981). Lin and Dumin (1986) and Granovetter (1983) argued that weak ties underpin the approaches of endorsement and the circulation of job opportunities. This happens when information about job applications is transmitted through channels of weak ties or sporadic contacts between applicants with employers, old friends he/she had once met before, former worker colleagues and acquaintances. A reason for such is that the right job and influential contact are usually found beyond one's direct circle of acquaintances (Lin et al, 1981).

This approach of channelling and circulating information can occur at venues of meetings or through mutual friends that perhaps would have never met outside the workplace confines before (Granovetter, 1983). Further exemplifying his argument of the prominence of weak ties for recruitment, Granovetter (1983) traced the source of job-related information in his research on managerial, technical, and professional jobs to conclude that 39% of respondents knew about job application from the principal employer himself whereas 60% said that the information was shared through more than one intermediary.

The second approach to filling human capital voids is through endorsement or referrals from an investor indirectly, from a current employee about a job applicant and/or through a circle of friends of friends. On the one hand, investors have abundant networks of professional communities that an entrepreneur can rely on to extract senior quality staff for his company (Sorenson & Stuart, 2000; Stuart & Sorenson, 2005). On the other hand, referrals from currently employed personnel are more likely to survive the selection process. Usually employed personnel have observable characteristics and a deeper understanding of the firm culture so their referrals are more effective because they are equipped with knowledge about both the firm and the referee (Yakubovich & Lup, 2006).

It is, therefore, common for entrepreneurs to award payment bonuses to their employees, hence the referrers, if the referral process is successful and if the referee is of quality. Such awards are given because endorsement benefits the firm and facilitates the recruitment process. It expands the pool of applicants for a firm and offers extensive information about applicants so an entrepreneur can then make a better and well-informed decision. From the employee's perspective, it increases the chances of his/her retention as the referee understands what he/she is going into based on well-communicated and thorough tacit features of the job (Fernandez et al, 2000).

However, a counter stream of research argues relying on social capital for recruitment carries negative outcomes. This is because referrals incline an inbreeding bias because usually, referrers will endorse referees who have similar characteristics to their own and their social network is characterised by homophily (Fernandez et al, 2000; Montgomery, 1991). Such homophily might impact the diversification of skills, knowledge and competencies that are required for firm growth. The third mechanism of accessing labour to mediate human capital voids is through direct recruitment from friends and family. The instrumentality of recruiting from family and friends is that it offers joy and emotional support and helps in the firm's rapid growth and development, so the benefit of this approach is twofold on both; the individual and firm (Sarfaraz et al, 2018).

Amongst the reasons identified for the conscious decision to directly recruit from family and friends is complementing business roles and deriving psychic wealth and emotional support either from sharing business information with family or friends, or/and from meeting them daily at the workplace (Stuart & Sorenson, 2005; Sarfaraz et al, 2018; Chuluunbaatar et al, 2014). This is because emotional support helps an entrepreneur in establishing routine and defining roles that determine the culture of an organisation, therefore, having family members and friends as employees at the early phases of a start-up aids in its longevity and survival.

Also, the entrepreneurship process is full of trials and tribulations so having a tight-knit family and friends as team members serves as a spiritual pillar for an entrepreneur during difficult times (Sorenson, 2018; Xie et al, 2021). In their research, Dahl and Sorenson (2009) identified that entrepreneurs purposely choose to locate their business premises close to their homes and with closer proximity to their partners, parents and/or siblings. Interestingly, such geographical proximity could come at the expense of premises that could offer the benefit of economic spillover. This is because emotional support is believed to aid an entrepreneur in withstanding the stress of the sharp market fluctuations, as well as, fuelling the drive and the determination to succeed (Sarfaraz et al, 2018). Indeed, the other impact of such warmth and praise from family members and friends have been proven to boost the confidence of an entrepreneur, as well as give him/her the boldness of making high-risk decisions regarding sales and marketing because of self-efficacy (Chen et al, 1998; Xie et al, 2021). Figure 2.4 illustrates how social capital is employed to fill the human capital void.

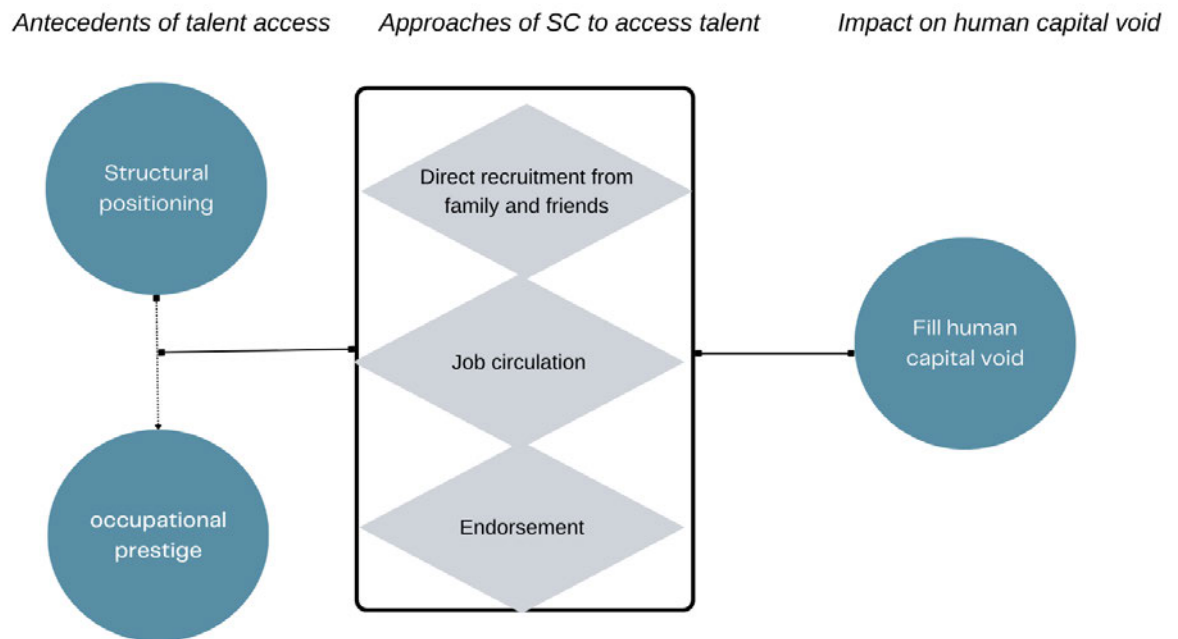


Figure 2.4: The process of how social capital is employed to fill a human capital void

Source: Author

2.4.2) Social capital to fill financial capital institutional voids:

The EEs literature identified that having a mature financial system and coordinated activities between various financial institutions leads to high-impact businesses (Brown & Mason, 2017; Mason & Brown, 2014; Spigel & Harrison, 2018). Fully mature financial markets have been referred to as economic capital that entails having venture capitalists, commercial banks, insurance companies and mutual funds that facilitate entrepreneur access to lucrative investment opportunities (Dijk, 2018; Khanna & Palpeu, 2010; Kim et al, 2017; Sarfaraz et al, 2018).

Such formal institutions offer access to finance which entrepreneurs rely on to acquire physical resources and invest in office premises, machinery and equipment and distribution channels (Chacar et al, 2010; Jayawarna et al, 2011; Mason & Brown, 2014). Venture capitalists are a better funding option than banks because their requirements are lenient compared to the stringent requirements of banks. They purchase equity stakes in nascent firms and provide funding to start-ups at zero stages of the ideation phase or when the product is still a prototype. They also offer infrastructure such as subsidised office locations, specialised equipment, expertise, mentorship, managerial support, coaching and networking advice that further promote the scalability of a firm. However, as the case applies to human capital voids, similarly emerging economies are characterised by financial capital voids that entail the dearth of financial institutions and limited availability of capitalists (Kim & Song, 2017).

The conditions of EMs could then threaten the full realisation of the entrepreneurial ecosystems phenomena. Specifically, SMEs in emerging markets are at a disadvantageous position compared to large businesses because SMEs have information asymmetry, knowledge of raising external debt, incomplete information discourse and modest resources. Alternative sources such as banks would prefer funding large companies rather than SMEs to avoid risk and rationalise their choice of credit (Boumlik et al, 2021; Hachimi et al, 2017; Jayawarna et al, 2011).

Therefore, it is argued that through utilising social capital, entrepreneurs can be supplied with the second resource of financial capital which is rarely found elsewhere. Social capital then becomes a prominent source of accessing credit where there is a dearth of financial institutions. Whenever SMEs encounter difficulties in obtaining credit, entrepreneurs must compensate for such financial capital voids by resorting to less formal sources of funding such as family, friends, kinship and/or bootstrapping (Ebben & Johnson, 2006). Two approaches are enacted to fill the financial capital void 1) screening borrowers to access credit from a circle of acquaintances and/or through 2) passing on parental privilege such as cash or other physical assets.

Despite the prominence of informal borrowing for business growth, yet it is less researched compared to formal credit such as banks and investment in the stock market (Deng et al, 2019). Research on informal investments as a credible source of funding, dates to the work of Wetzel (1987) who studied the context of SMEs in the United Kingdom and the United States (Bygrave & Bosma, 2011). In his systematic study, Wetzel (1987) pioneered in exemplifying how the size of informal finance such as that of personal wealth, business angels and others filled the gaps in financial capital markets, especially for small technology firms. He concluded that 50% of businesses in the United Kingdom relied on personal contacts for financial access. Calling informal borrowing 'love money', Markova and Petovska-Mircevska (2009, p.598) referred to the process of gaining financial access from a personal network as '3Fs' which stands for friends, family, and fools. Informal borrowing or love money acts as the prime source of internal funding or/and funding before an entrepreneur expands his financial cycles externally by resorting to mechanisms of banks and venture capitalists (Bellavitis et al, 2017).

Antecedents of financial access are personal trust and family socio-economic status because they facilitate financial transfer (Ozigi, 2018). The relevance of trust for resource access has been well documented by Casson and Giusta (2007) who included it as part and parcel of their definition of SC. Casson and Giusta (2007, p.221) understood SC as 'the capitalised value of improvements which is attributed to high-trust social networks'. They defined trust as a warranted belief that the other party will honour their obligations and they associated trust with outcomes of predictability and confidence.

Trust is a necessary ingredient in informal borrowing because usually, business transactions are uncertain and highly risky, so the ability to trust mediates the turbulence of businesses and offers durable support at times of uncertainty (Lee et al, 2019). Moreover, a climate of trust between lenders and borrowers will provide additional insurance for lenders so that lenders can use fewer resources to constantly monitor the borrowing transaction (Deng et al, 2019). Also, reputation is another invaluable intangible asset that stems from the history of strong ties and accumulated transactions ultimately creating confidence that a borrower will honour his/her obligations (Casson & Giusta, 2007).

Within an informal network, trust manifests confidence that a loan will be repaid, or punishment and sanctions will be imposed when the firm defaults which would lead to a break in the accumulated reputation of the borrower. Such a break in his/her reputation will be circulated widely within a network as bad news or 'trust not to deliver' eventually factoring in the breach of trust that will deter other lenders from willingness to provide capital (Casson & Giusta, 2007, p.228).

Indeed, such trust could act as an instrument of contract enforcement in countries with weak institutional environments and it could successfully replace law and order in countries with strong institutional environments (Deng et al, 2019; Guiso et al, 2004). Another antecedent of financial access is family socioeconomic status in terms of the social class of the family and the wealth of the parents. This happens when wealthy and privileged families pass on their status and wealth to their children. This approach is enacted through inheritance or ascription such as handing out cash or/and passing on actual business ventures. Eventually, an entrepreneur either retains this wealth or resells the inherited business to further enlarge his/her wealth. Those benefits help him in filling financial voids and improving sub-optimal investment prospects (Aldrich et al, 1989; Kerr & Nanda, 2009; Lin, 2001).

Moreover, parents could transfer their children's physical assets in the form of gifts as an unconventional type of aid. The instrumentality of those approaches is that they fill financial capital voids and mitigate the impact of the dearth of formal credit. They also reduce financial difficulties (Aldrich et al, 1989; Lin, 2001; Loury, 1977) and help an entrepreneur's retention of control because he/she could alternatively relinquish their powers and autonomy if they relied on external sources of funds (Chua et al, 2011; Markova & Petovska-Mircevska, 2009). For example, Chua et al (2011) addressed such benefits of entrepreneurial independence because it mediated the compulsion to unveil private information, credible signalling, and third-party involvement.

Those benefits would not have been attained, had the entrepreneur pledged collateral and/or agreed to restrictive covenants (Deng et al, 2019; Chua et al, 2011). Another form of maintaining control of the firm is cash and accumulation of savings that could yield securing external credit at later business stages because an entrepreneur will deploy his/her resources to stimulate stakeholder responsiveness (Chua et al, 2011; Jones & Jayawarna, 2010). Indeed, the role of social capital in financial access has been well-documented in particular studies on gender and entrepreneurship (Alakaleek & Cooper, 2017; Khan, 2020; Verheul & Thurik, 2001; Wang et al, 2022; Yetim, 2006).

Research elaborated on the association between social capital in supporting female entrepreneurs compared to their male counterparts. This is because female entrepreneurs usually invest heavily in strengthening the interpersonal ties of their network of family and friends. Conversely, men invest more time and effort in strengthening formal and professional business circles (Aldrich et al, 1986; Verheul & Thurik, 2001; Wang et al, 2022).

The literature argues that women resort to personal networks due to the difficulties of obtaining external credit, their lack of self-efficacy, as well as, cultural and societal norms that favour credits to men compared to women (Hattab, 2012, Khan, 2020; McAdam et al, 2019; Wang et al, 2022) Described as cultural voids (McAdam et al, 2019) patriarchal societies are structured in a way that serve men's purposes while hindering women's economic independence, so this limits their access to resources to have their businesses beyond their family ties.

In their research on Pakistani culture for example, Khan (2020) explained how its conservative values manifested in oppressive practices such as limiting the freedom of women's spatial mobility and stifling her business pursuits unless she is supported by a male figure. In a similar vein, Hattab (2012) examined how women in the Egyptian context have low participation rates in the workforce which eventually shrinks their business skills and experiences commensurate for venture growth (Hattab, 2012). Accordingly, the collective reasons for the difficulties in obtaining external credit alongside the conservative societal norms and values pushed female entrepreneurs in emerging markets to rely on both their high status, as well as their family and friends for financial access (Khan, 2020; McAdam et al, 2019). Figure 2.5 illustrates how social capital is employed to fill the financial capital void.

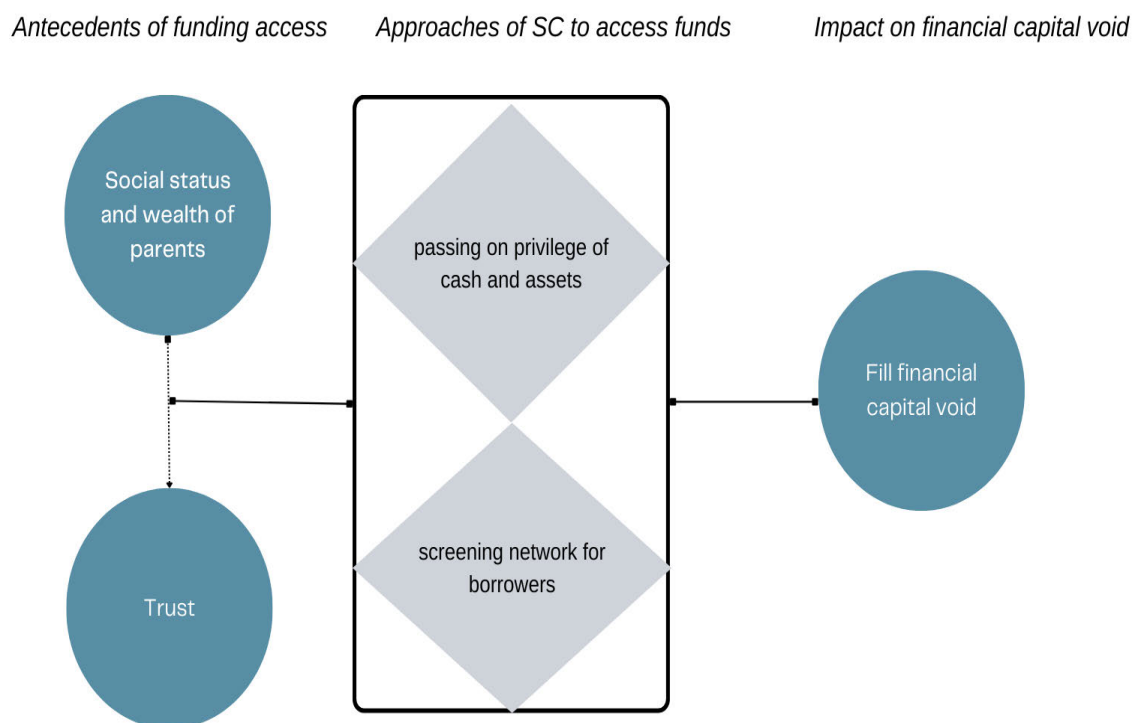


Figure 2.5: The process of how social capital is employed to fill financial capital voids

Source: Author

2.5.3) Social capital to fill market institutional voids:

EEs literature identified that having a mature market with fully coordinated activities and information access leads to high-impact entrepreneurship. Mature markets have coordinated activities between distribution channels, open and accessible markets, as well as dense networks that connect multiple actors of an ecosystem (Spigel, 2016; Stam & Spigel, 2018; Stam, 2015). Those networks act as the glue that binds actors of an ecosystem because they facilitate access to local resources. However, as the case applies to human and financial capital voids, similarly, emerging markets are characterised not by the lack of information, but rather by the existence of fuzzy information. For example, there could exist a technical problem but the tools to address those problems remain obscure (Keeble et al, 1999). This creates a climate of uncertainty because the true structure of the situation is hazy; a matter which complicates the decision-making process for an entrepreneur. Therefore, it is argued that entrepreneurs operating in such imperfect markets can utilise their social capital to fill regional market voids.

Entrepreneurs can rely on their embeddedness within a social unit to access the third resource of exclusive and private information that is not available elsewhere. The approach of filling a market void can be through sharing exclusive market information through the simple activity of socialisation. Socialisation helps in obtaining information about market needs and demands that aids an entrepreneur in opportunity recognition and enables him/her to make better choices and eventually restore market equilibrium. Indeed, knowledge as an externality from one's social capital remains the classically cited social capital resource compared to financial and human capital (Adler & Kwon, 2002; Durlauf & Fafchaps, 2004).

The instrumentality of such information-sharing lies in its exclusivity compared to public information for example. Such private information extends to its timeliness, reliability, and its regional competitiveness which makes it hard to acquire competitors. By comparison, public information could be widely accessed such as pricing information (Uzzi, 1999). Such exclusive information transfer (Inkpen & Tsang, 2005) or knowledge spillover (Minniti, 2005) between actors of a network could fill market gaps because it extends to codified and uncoded product know-how, know-what, technical commercial problems, skills, and experience-based knowledge that could be difficult to obtain elsewhere.

Another form of exclusivity is that information shared could be only acquired through learning experiences (Maskell & Malmberg, 1999) so that such experiences are embodied within the learner who then relies on his embeddedness within a network to share them. Not only the individual learner, but also shared experiences could extend to embody firm internal procedures, culture, and routines. Such information then raises awareness of an entrepreneur, reduces transaction costs, and augments his/her knowledge of market functionality (Adler & Kwon, 2002; Coleman, 1988; Darluf & Fufchamps, 2005; Lin, 1999).

Antecedents of the approach of sharing exclusive information are enforced trust, reciprocity, and solidarity. First, actors within a network share private information only when they trust that others will not voluntarily engage in opportunistic behaviour against their own. Instead, a sense of common beneficiaries, shared destiny, common good, and solidarity of 'us' rather than 'them' replaces fear of misappropriation (Adler & Kwon, 2002; Uzzi, 1999).

Second, reciprocation fosters a climate of trust that exchanges are accepted and would be returned which further solidifies reciprocal investments and self-enforcement. Indeed, although it can be argued that the sharing of private information is unjustifiable for self-interest purposes, yet the belief within a community that non-co-operators will be punished transcends egocentrism for the common good and mutual benefit (Bowles & Gintis, 2002). Literature suggests that social capital is formulated on the individual level (micro-level) to have a positive impact on firm growth (macro-level). This is enacted when interpersonal relationships are forged through socialisation that occurs at social meetings and regional gatherings. Those personal contacts could be instrumental in forming strategic alliances, franchises, buyer-supplier relationships, trade associations and business groups that collectively formulate organisational social capital (Keeble et al, 1999; Inkpen & Tsang, 2005). However, since the start of the twenty-first century, research has expanded to explore another source of social capital in the virtual world.

Propelled by the space independence of digital technology, this nascent stream counterargues the classic Marshallian externality of the twentieth century whereby social connections were believed to be bound by the *spatial* existence of geographical agglomeration (Maskell & Malmberg, 1999). In the same vein, studies of EEs proposed that a firm's spatial connectivity promotes regional growth because it operates as a milieu for collective learning (Mason & Brown, 2014). This happens when the geographical proximity of actors within a region fosters cohesion and interchanging of resources (Maskell & Malmberg, 1999).

However, papers that discuss online networking argue that the *boundaryless* existence of social media platforms could act as a parallel venue for amassing a stock of social capital because entrepreneurs rely on those virtual platforms to snowball their networks and personal contacts. Although the mechanism of how such digital affordances operate remains understudied because the field is nascent, the outcomes of online interactions have been identified to offer solutions to society's challenges and promote economic growth (Boase & Wellman, 2006; Cummings et al, 2006; Nie, 2001; Song et al, 2021).

For example, online networking offers communities speedy social support through instantaneous messaging and offers its members information, emotional support, and companionship (Cummings et al, 2006; Boase & Wellman, 2006). The difference, however, between online and spatial networks lies in the structure of networks because online networking is characterised by weak ties compared to tight-knit face-to-face interactions that are forged through multiple and frequent interactions over a lengthy period. Indeed, literature on social media and networking (Boase & Wellman, 2006; Cummings et al, 2006) highlighted the advantages and disadvantages of social media as a means of amassing social capital.

The instrumentality of the expansive world of online networking is that members of online communities can have simultaneous activity in more than one group by joining diverse social circles. This benefit contributes to gaining access to new clients, new skills, new competencies, and new ideas (Boase & Wellman, 2006).

For example, in their research on 273 entrepreneurs, Song et al (2021) concluded that embeddedness within online social networks such as LinkedIn increased entrepreneurial wealth and enhanced opportunities for collaboration through sharing contacts (Song et al, 2021). On the other hand, online networks are less sustained compared to the longevity of strong ties of offline networking. They also could bind members of a certain group compared to others. This could include characteristics of being young, wealthy, and of better education than non-social media users (Cummings et al, 2006; Nie, 2001). Figure 2.6 illustrates how social capital is employed to fill the financial capital void.

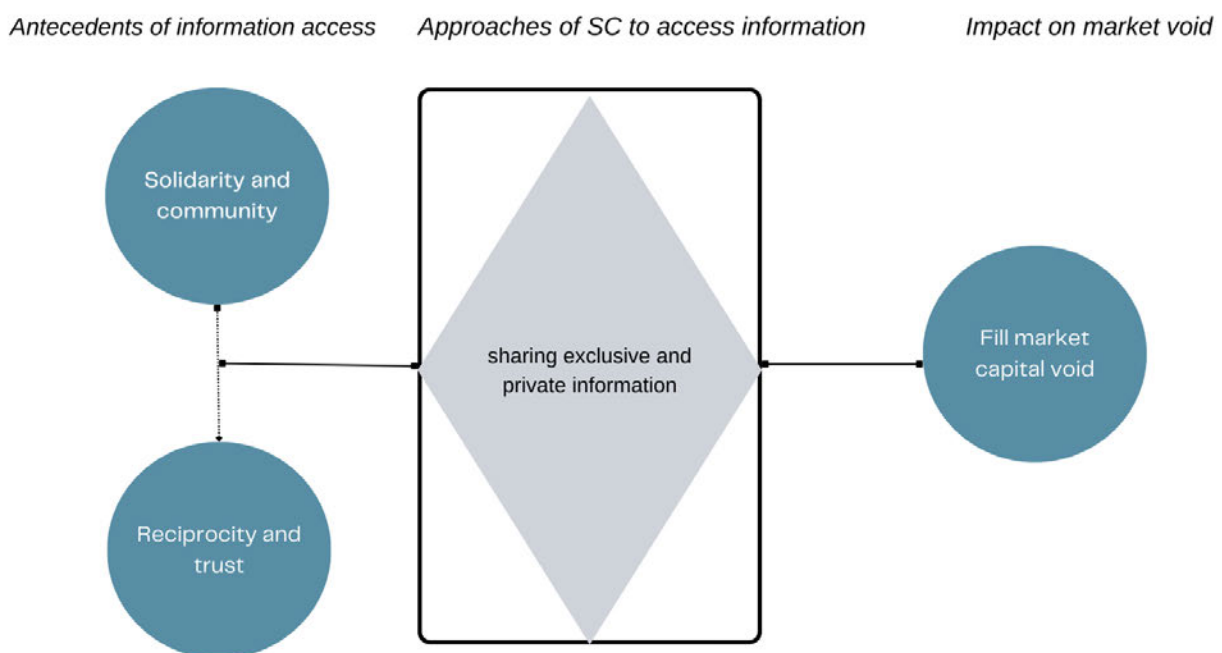


Figure 2.6: The process of how social capital is employed to fill a market void

Source: Author

2.5.4) Integrative diagram of how social capital is utilised to fill institutional voids of emerging economies:

EMs have unskilful labour, absent placement agencies, scarcity of investors and imperfect markets. Those conditions contradict the requirements to produce EEs phenomena as Figure 2.7 illustrates (Audretsch et al, 2021; Stam, 2015; Mason & Brown, 2014). Therefore, those conditions could threaten the full potential of the EEs and lead to weak and sparse EEs (Spigel & Harrison, 2018). As such, there exists a gap in the literature on EEs on understanding how entrepreneurs in EMs draw on their local resources to produce EEs phenomena and businesses of impact.

By welding the three theories, the theoretical framework of this thesis presents how entrepreneurs in EMs rely on their embeddedness within their social networks to access the specific resources of talent, funding and exclusive market information required for the growth of their firms. This happens because social capital acts as a hub rich in resources that would enable entrepreneurs to fill their human capital, financial capital, and market institutional voids respectively. Eventually, they could produce high-impact EEs and help their firms grow when those gaps are filled with resources. First, entrepreneurs rely on their embeddedness within their social network to be supplied with the first resource of qualified talent when there is a lack of placement agencies and a scarcity of talent.

The human capital void is filled through the approaches of 1) direct recruitment from family and friends, 2) endorsement from an investor or current employer or/and 3) circulation of the publicity about a job. Second, entrepreneurs rely on their embeddedness within their social network to be supplied with the second resource of financial capital when there is a dearth of financial institutions. The financial capital is filled through approaches of 1) screening borrowers to access credit from a circle of acquaintances and/or through 2) passing on parental privileges such as cash or other physical assets.

Third, entrepreneurs can rely on their embeddedness in social networks to access the third resource of exclusive and private information that is not available elsewhere. The market void is filled through the approach of sharing exclusive market information by socialisation. Those six approaches will then compensate for imperfect markets, the dearth of financial institutions, the scarcity of talent, and the lack of placement agencies to ensure both; the growth of their firms and the functioning of EEs. Figure 2.8 describes how the approaches of SC have an output of filling respective gaps and an outcome of improving the EEs phenomena in the context of EMs.

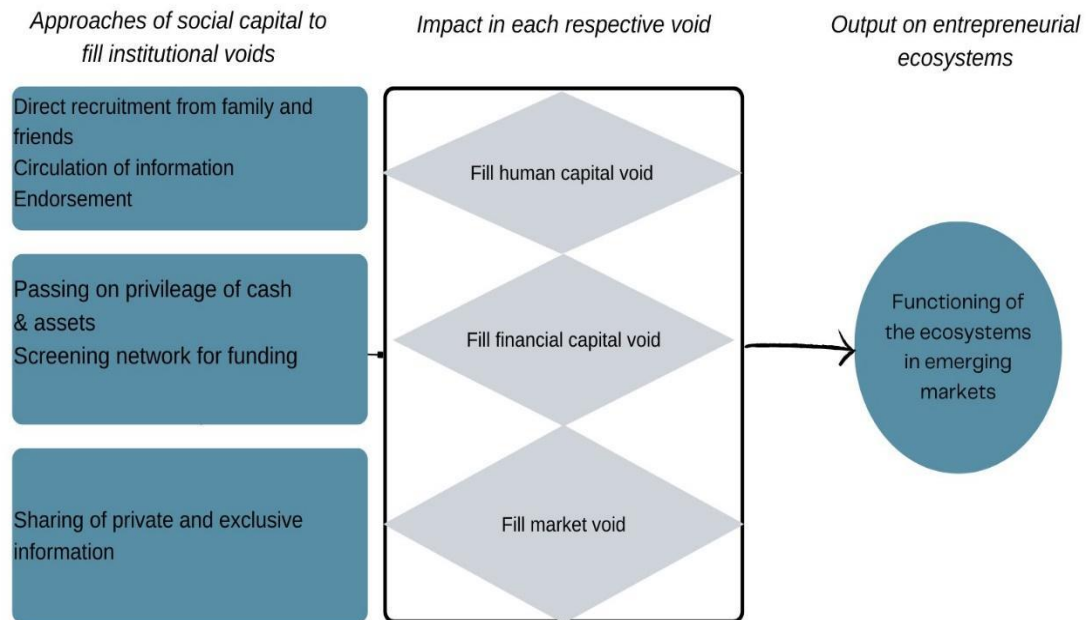


Figure 2.7: An integrative diagram illustrating how entrepreneurs in emerging markets utilise social capital to fill human capital, financial capital and market institutional voids

Source: Author

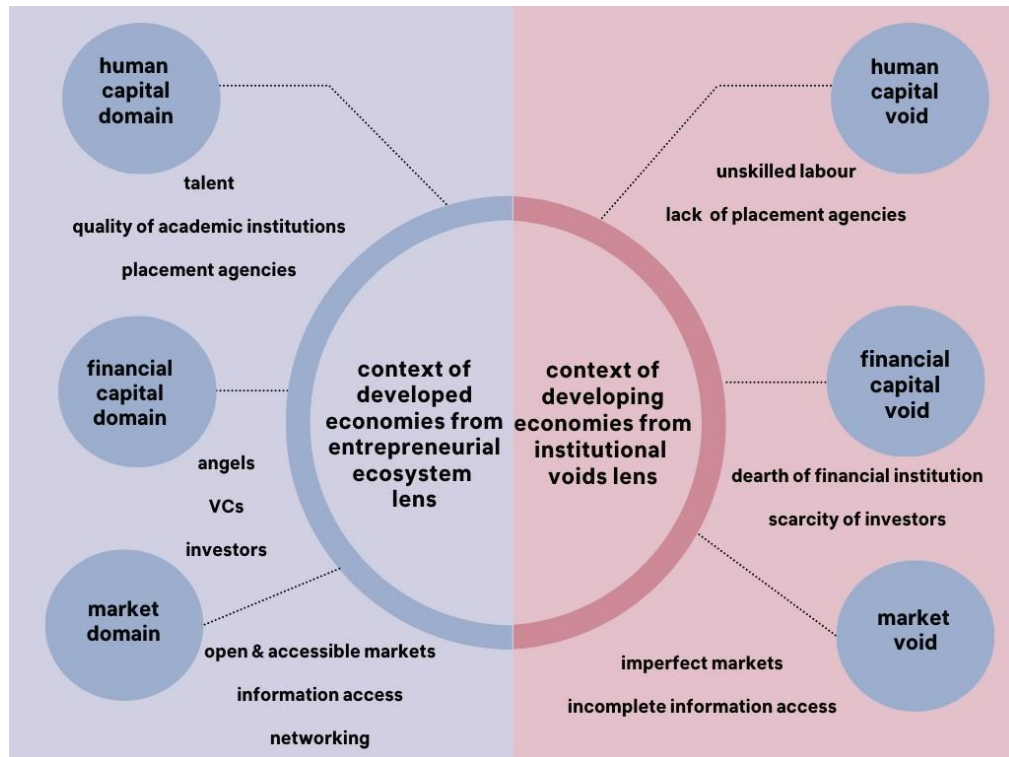


Figure 2.8: Comparing and contrasting the conditions of literature of EEs in the context of developed markets to the conditions of EMs

Source: Author

2.6) Chapter Summary:

This chapter presented the three theories of entrepreneurial ecosystems, institutional voids, and social capital theories to understand the ecosystem practices undertaken by entrepreneurs in emerging markets. As stated earlier, the practices of EEs include how local entrepreneurs draw on local resources to produce the EEs phenomena. The primary research question of this thesis is what are the characterisations of the fashion and digital entrepreneurs in Egypt? To investigate the process of the EEs, three interlinked sub-questions are derived; *What are the characterisations of digital and fashion human capital, financial capital, and market institutional voids? What role does social capital play in mediating the voids for both ecosystems? and What is the impact of voids on both ecosystems?*

This thesis follows the definition of an entrepreneurial ecosystem as a set of interdependent actors and factors coordinated in such a way that enables productive entrepreneurship within a particular territory (Stam & Spiegel, 2018). Second, the thesis steers away from the classic institution theory by choosing the theory of IVs to investigate the context of EMs. This is because IVs are not vacuums but rather lacunae or gaps that are full of palpable opportunities awaiting to be explored by innovative entrepreneurs in EMs. For example, the classic institutional theory misses questions of *how local entrepreneurs operate when their business environment is not supportive? Who intervenes to help those entrepreneurs and firms grow? Who has the agency when regional governments withdraw?*

It therefore largely overlooks the adaptive behaviour undertaken by the resilient 'paragon' (Castellacci, 2015, p.44), 'proactive and innovative' (Voeten et al, 2017, p.4) *local* entrepreneurs of emerging markets and how they work around (Sydow et al, 2022) their regional voids. The theoretical framework suggests that entrepreneurs in EMs utilise their social capital to access resources that are not available elsewhere. The definition employed in this thesis is that of Lin (2001) who defines social capital as resources embedded in a social structure that is accessed and/or mobilised for purposive actions (Lin, 1999; 2001). The relevance of SC theory to this thesis is that entrepreneurs rely on their social networks to have access to embedded resources of talent, funding, and exclusive market information to fill their human capital, financial capital, and market institutional voids respectively.

By filling the voids, they could eventually produce a high impact on EEs and help their firms grow. Entrepreneurs fill their human capital void by relying on the antecedents of trust and occupational prestige within a network to employ approaches of 1) direct recruitment from family and friends, 2) endorsement from an investor or current employer, or/and 3) circulation about job publicity. Second, entrepreneurs rely on the wealth and the status of their parents, as well as trust to 4) screen their network for borrowers, and 5) have cash or physical assets passed on through inheritance or ascription when their environmental contexts are characterised by financial capital void. Finally, entrepreneurs rely on their embeddedness within their network and socialisation to 6) access exclusive and private information in a business environment when information is scarce.

The implication of this framework is threefold as it shields the gaps between the three theories under study. First, it contributes to the literature on entrepreneurial ecosystems by studying the process of ecosystems in emerging economies that have institutional arrangements that do not meet the requirements of the production of EEs phenomena, second, it contributes to the IV theory by reflecting on the adaptive approaches of local and for-profit entrepreneurs rather than the extant fixation of the approaches undertaken by MNCs in EMs or that of local social entrepreneurs. Third, the framework contributes to SC by investigating the specific approaches undertaken by entrepreneurs upon their utilisation of the resources embedded in their social network.

Chapter Three: Research and Methodology

3.1) Introduction:

This chapter discusses the systematic steps to reach the thesis objectives. The primary research question is what are the characterisations of fashion and digital EEs in the context of human capital, financial capital, and market voids in Egypt? Three sub and interrelated questions are derived as; *1) What are the characterisations of the digital and the fashion human capital, financial capital, and market voids in Egypt? 2) What role does social capital (SC) play in mediating the voids for both ecosystems? and 3) What is the impact of the institutional voids on the effective functioning of the digital and fashion EEs?* The significance of this research is that it steers away the fixation from prominent digital and fashion hubs such as London/United Kingdom, Milan/Italy, New York/United States, and Cambridgeshire/United Kingdom by investigating less researched regional hubs in Cairo/Egypt. Also, the temporal context of the post 2011 revolution is of significance because culturally entrepreneurship has never been an alluring career path in a country that has been heavily rooted in socialism.

To achieve the research objective, the researcher undertook the qualitative method of interviewing a sample of 31 digital to 10 fashion entrepreneurs owning their SMEs in Egypt. The qualitative method has been chosen because this study paradigm is interpretive whereby data findings represent how entrepreneurs *perceived* their ecosystems and how they *coped* with such challenges to mediate their respective voids; all based on their subjective interpretation of their realities.

Entrepreneurs operating in the digital and fashion sectors were purposely chosen to serve the theory of the EE having HGFs at its core and second due to the rising interest in those sectors in Egypt after the 2011 revolution. An entrepreneurial ecosystem proxied by HGFs generates a rapid multiplier effect of jobs, innovation, and social welfare at accelerated rates though being young (less than five years), could be of new entrants and relatively small in size (Brydges & Pugh, 2021; Schreyer, 2000).

As detailed in Chapter One, firms of impact can be found in all industries, yet they are still overrepresented in digital firms and that of service (Schreyer, 2000). The qualitative data analytic treatment is based on the three cycles of coding, categorising, and conceptualising before concluding (4Cs) extracted from Miles and Huberman's (1994) three streams of analysis. The software tool of NVivo-12 has been used to organise segments and arrange codes that aided in arriving at the conceptual framework. This chapter starts with displaying the thesis objectives, then the methodology and the design (sampling and data access) undertaken. Data analysis is represented in section four followed by the research quality and the ethical standards of the research process.

3.2) Research objectives:

The motivation of this study lies in addressing the gap of the scarcity of research studying entrepreneurship dynamics in emerging markets described by Lingelbach (2005) as the least studied social phenomenon in the world. In their research on papers from 1990 to 2006, Bruton et al (2008) concluded that only less than half of 1% of papers in the top nine journals did examine entrepreneurship in emerging markets whereas their total absence of investigations focused on sub-Saharan Africa and the Middle East (Bruton et al, 2008). Such scant research efforts are not proportionate with the economic value of emerging economies that have contributed to two-thirds of the global GDP in the past 20 years (Woetzel et al, 2018). Also, promising predictions suggest that the economies of Brazil, Russia, India, China, and South Africa (BRICS) economies will supersede that of the US, Germany, Italy, France, and the UK (G6) by 2050 (Bruton et al, 2008). Not only practically but conceptually investigating the 'why' or/and 'how' aspects of theories in emerging markets rather than the 'what' offers a balanced and expansive approach to research. Accordingly, it advances our understanding of current theories and/or leads to new theory generations (Zahra, 2007; Bruton et al, 2008).

The objective of this thesis is *to study how local entrepreneurs in regions of institutional voids, draw on their regional resources to explore, evaluate, and exploit the opportunities to scale up firms*. The significance of this research objective is addressing the imbalance of conceptual to process or context-based papers studying EEs suggesting that the EE is rather metaphorical rather than practical (Wurth et al, 2022).

For example, the EEs literature remains mute on questions that investigate *how local entrepreneurs allocate resources for ecosystem growth. How do elements of EE cohere?* and *What are the dynamics of EEs?* Therefore, by addressing this research objective, this thesis will offer a holistic and comprehensive framework that illuminates the reader on the proper functioning of the EEs phenomena.

The thesis general research question is *What are the characterisations of the digital and the fashion EEs regarding human capital, financial capital, and market institutional voids?* To answer this general research question, three specific questions are crafted as follows: 1) *What is the characterisation of the human capital, financial capital, and market institutional voids for digital and fashion EEs?* 2) *How do digital and fashion entrepreneurs employ social capital to fill their respective voids?* and 3) *What is the impact of the voids on the process of the EEs?*

3.3) Research methodology:

This chapter presents the systematic processes of this research inquiry. It discusses the methodological justification of this study (paradigm, approach, and strategy) followed by the research design (primary and secondary sources, data analysis, and its validity) as shown in Figure 3.1. Adapted from Saunders et al (2019) research onion, Figure 3.1 displays the interrelationship between the research rationale and the design of this thesis. The research question of investigating the process of an EE is guided by an interpretivist philosophical paradigm and an inductive approach to theory development.

Accordingly, the qualitative methodology, the case study research design, and interviewing methods are chosen to collect data to serve the purpose of the interpretive paradigm guiding this thesis.

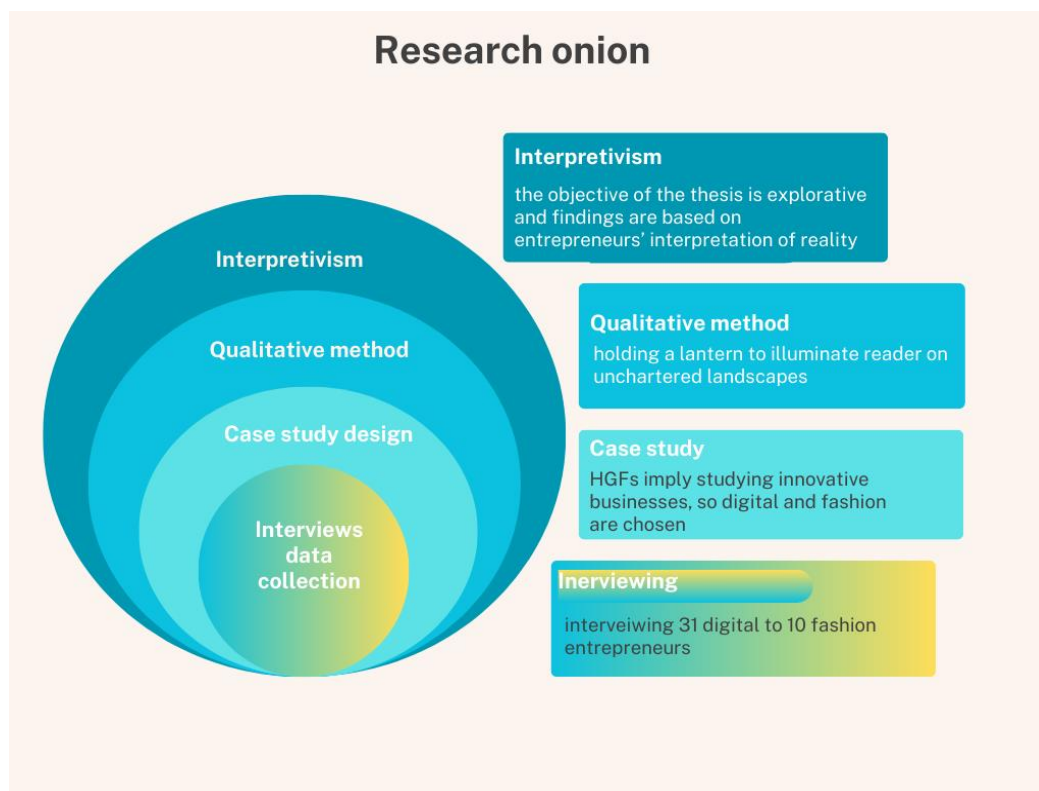


Figure 3.1: The rationale of the research methodology and the research design of this thesis

Source: Author

3.3.1) Convenience of interpretive research paradigm to this thesis:

This exploratory research is governed by an interpretive paradigm because it deals with entrepreneurial consciousness and behaviour (Packard, 2017; Saunders et al, 2019; Morgan & Smircich, 1980). This orientation serves the purpose of this research by illuminating the reader on the uncharted landscape of the EEs processes in Egypt post the 2011 revolution era. In his research on interpretivism, Packard (2017) delineated that this particular paradigm is associated with studies of the process of entrepreneurship because it investigates how entrepreneurs are sources of opportunities for knowledge (Packard, 2017). Therefore, this research paradigm offers a perceptive logic to this thesis inquiry that investigates how fashion and digital entrepreneurs *interpret* their sectors' voids and how they actively seek solutions to fill those voids.

The research findings then construct reality based on the distinct lens of *becoming* rather than being because it involves relationships and interactions between social entities. Also, research findings are highlighted based on the meaning entrepreneurs give to their actions. Those findings are knowledge, not mere facts of truth because they underpin the entrepreneurs' mental models and what they perceive to be real which might not necessarily be an objective truth (Packard, 2017). The relevance of an interpretivist approach is that the research questions posed, cannot be answered figuratively by imprinting empirical observations of the positivist approach for example. This means that rather than presenting each entrepreneur with a list of findings that were conducted in other regions, the researcher believed that inducing how each entrepreneur *perceived* his/her environment from *his/her lens* would deepen our understanding of the nascence of EEs.

Accordingly, the explorative and expansive nature of interpretivism captures the rich complexities of entrepreneurship research when in-depth understanding replaces the generalisability of the positivism paradigm (Creswell, 2012; Packard, 2017; Saunders et al, 2019).

3.3.2) Qualitative research approach and inductive logic:

This study employed the Qualitative research method which is well-suited to the interpretive paradigm. The qualitative method is 'a see-through approach' (Charmaz, 2006, p.15) that is fundamentally convenient for extracting meanings that people assign to social constructs. It is 'an array of interpretative techniques which seek to describe, decode, translate and come to terms with the *meaning not frequency* of certain phenomena in our social world' (Maanen, 1979, p.9). The qualitative method has been purposely chosen as a research method due to its strengths especially when investigations go beyond the basics of 'what' and 'how' to delve deeper into the inquisitive 'why'. An advantage of using qualitative methods is that they derive rich, nuanced, holistic, and thick data (Charmaz, 2006; Gibbs, 2012; Miles et al, 2014) given their exploratory, rather than explanatory, nature.

Third, the qualitative method re-considers theories in new light given that it doubts the correlation between hypotheses (Miles et al, 2014), it therefore serves the purpose of investigating the processes of EEs in emerging markets by contesting prior findings.

Fourth, it also offers a flexible approach to a study by introducing new threads of thought which help in expanding our understanding of EEs theory (Charmaz, 2006; Morgan & Smircich, 1980).

The relevance of this feature to the research process was highlighted at times during the conduction of the pilot study in the duration of 2019-2020 as part of the research progress. Indeed, during the initial phase of data collection, new leads were added, deepened, or eliminated thanks to the flexibility of this method. Therefore, a qualitative method is purposely chosen to govern this study due to its flexibility, depth of inquiry, and the generation of thick descriptions; all reasons illuminating the complex phenomena of EEs in the context of voids.

Moreover, the underlying logic of this research is inductive reasoning because the findings are not theory-laden nor are they limited to *a priori* frameworks such as the case of deductive logic (Gibbs, 2012; Saunders et al, 2019). Deductive reasoning is an objective and explanatory method of research that serves the purpose of contesting hypotheses based on literature. Comparatively, inductive reasoning is a subjective method that is convenient for contextual and exploratory-based studies. Therefore, it is argued that the latter suits the contexts of uncharted landscapes (Saunders et al, 2019) such as the research objective at hand.

For example, rather than presenting the entrepreneurs with a laundry list of findings that were convenient in one context, it is important to acknowledge that those findings might not necessarily apply to other contexts. For such contextual specificity, the researcher chose to *induce* findings based on digital and fashion Egyptian entrepreneurs' interpretation of their ecosystems. Similarly, those subjective findings might not necessarily be applicable in other contexts. The instrumentality of inductive logic is that it expands our understanding of the EEs by adding new threads to the extant literature.

3.3.3) The case as a research strategy:

Qualitative research is associated with multiple strategies of; grounded theory, ethnography, case study, action research, and narrative inquiry (Saunders et al, 2019). A research strategy is understood as the methodological link between the research rationale and the research design to collect and analyse data (Saunders et al, 2019). This study adopts the case-study strategy; known as an in-depth inquiry into a real-life phenomenon within its contextual setting (Eisenhardt, 1989; Saunders et al, 2019; Yin, 2018). The purpose of a case study is to illuminate a decision and/or unveil the hidden dynamics of a phenomenon based on the interaction between the subjects of the case and their context (Saunders et al, 2019).

The rationale of the case study is to guide research questions of “why” and “how” in the fields of social sciences. Also, it is a convenient method when the boundaries between the phenomenon and the context are not established or when the need arises to investigate a phenomenon in the real world (Yin, 2018). Investigating a case in its natural setting automatically establishes case-based contextual boundaries. Therefore, it is best suited to this research given that it deeply investigates the challenges and the coping approaches of entrepreneurs within the context of Egypt as an EM.

Subjects of a case can be an individual, a firm, an event, or an association, while case studies can involve either single, or multiple cases, and/or numerous levels of analyses known as embedded-case-study (Eisenhardt, 1989; Yin, 2018). A single case sampling or ‘within-case sampling’ (Miles et al, 2014, p.47) is usually nested such as the case of the sub-divisions within a whole organisation (Eisenhardt, 1989; Scholz & Tietje, 2002).

On the other hand, multiple-case sampling implies replication logic that examines a wide range of comparative cases to yield more confidence in findings (Miles et al, 2014; Yin, 2018). Sampling involves single, multiple, or embedded cases that include a set of entities. Sampling then sets boundaries that control the extraneous variability and limit the generalisability of the findings as the situation is for qualitative research in general (Eisenhardt, 1989; Yin, 2018). This study investigates how two embedded and independent cases of fashion entrepreneurs and digital entrepreneurs within Egypt cope with their institutional voids. Entrepreneurs were chosen as key informants because they are 'experts' (Saunders et al, 2019, p.187) on the subject at hand for being both; the founders and the chief executive officers of their creative businesses. By employing a case strategy, data are expected to deepen our understanding of the voids of their industries and uncover the mechanisms utilised to cope with such challenges; both known as defining elements of case strategy.

3.4) Case sampling and data access:

3.4.1) Purposive sampling and the digital and fashion parameters of this research:

Sampling is bounding a territory from a wide array of a population (Miles & Huberman, 1994). The most common sampling technique in qualitative research is purposive sampling, synonymous with theoretical sampling (Silverman, 2014, p.72). It implies that sampling is selected based on research objectives and the parameters of a theory to illustrate their salient features (Saunders et al, 2019; Silverman, 2014).

It is also particularly important when the research addresses uncharted landscapes of research (Corbin & Strauss, 2008) such as the case of the study at hand. In the vein of purposive sampling, EEs deal with high-impact entrepreneurship, so the parameters of sampling were entrepreneurs having their SMEs in the digital sector. High-growth firms (HGFs) are conceptualised as cash burners and are credited for being firms of innovation. This is enacted because such an impact is evident within a limited time frame, hence regardless of being new entrants or/and employing a small number of employees (Audretsch, 2012; Acs, 2011; Du et al, 2015; Elbahrawy et al, 2020; Schreyer, 2000; Mason & Brown, 2014). The relevance of digital firms to regional growth is that they offer a rapid multiplier effect of innovation and job creation. This means that their outcome aligns with the goal of EEs; both producing entrepreneurship of impact (Mason & Brown, 2014; Spigel, 2016; Stam & Spigel, 2018).

Acknowledging such an impact, the digital sector has been a staple case sample in researching regional EEs as evident in the work of Kapturkiewicz (2022), Spigel (2022), De Brito & Leitao (2021), Maroufkhani et al (2018), Purbasari et al (2019), as well as Brown and Mason (2017). As an example, in Egypt, the fintech of *Fawry* has been worth \$billion in 2021 (Elbahrawy, 2020) though it only started its operations in 2014. This means that only six years after its inception, *Fawry*¹³ was listed in the Egyptian stock market.

¹³Fawry is a platform that offers public services, such as paying bills and utilities. It was privately founded and funded, yet the government through PPP bought shares of it to then be listed in the Egyptian stock market <https://www.fawry.com/>

On the other hand, the fashion ecosystem is considered a palpable source of innovation and creativity that contributes to regional growth as well. Choosing this ecosystem as a regional investigation balances the overrepresentation of digital ecosystems in the particular context of Egypt. The choice of this understudied and overlooked sector fills the gap in extant literature that primarily addresses digital sectors (Malecki 2018; Brydges and Pugh, 2021). Investigating this sector is an attempt diversify studies on ecosystems especially since firms of impact exist in *all* sectors as per Du et al (2015).

A theoretical implication of such sectoral inclusion and regional diversification is adding new dimensions to the EEs theory and enriching our understanding of its complexity. Ultimately, such an inclusion of alternative sectors, alongside, the digital offers a comprehensive approach and a multi-dimensional perspective to EEs literature. Moreover, SMEs have been chosen because they are productive drivers for economic growth and regional development (Kesgen et al, 2010; Smallbone, 2007). The Organisation for Economic Co-operation and Development (OECD) defines SMEs as those which are employing fewer than 50 employees. In Egypt, SMEs represent 95% to 98% of the total industrial enterprises and employ around 75% of the total workforce (Bary, 2019). Acknowledging their impact on creating jobs in the market, the Central Bank of Egypt (CBE) offered a stimulus package of \$25 billion to regional banks so that at least 20% of the commercial loans were to be dedicated to SMEs by 2020 (Bary, 2019).

The importance of SMEs in emerging economies stems from their catalytic role in job creation and improvement of technology, entrepreneurship and innovation opportunities that contribute to their growth and development (Muhammad et al, 2009; Neagu, 2016). Reasons for such a robust association between regional growth and SMEs are due to their flexible managerial structure whereby less formality arises between individual aspirations and company goals. Conversely, the mechanistic nature of large corporations with high employment capacities promotes bureaucratic practices that eventually stifle innovation (Neagu, 2016). As such, believing in the prominent role of SMEs in Egypt, the researcher interviewed a total of 41 entrepreneurs owning their SMEs in Egypt. The entrepreneurs were 31 digital entrepreneurs and 10 fashion entrepreneurs.

However, noteworthy to mention that there is an imbalance between a sample of digital and fashion ecosystems. Data collection occurred at the Covid-19 from 2020-2021. The researcher started the process of data collection by interviewing digital entrepreneurs in 2019, yet with the outbreak of the pandemic. This challenge has been compounded by the PhD journey's limited time frame, therefore, only 10 fashion entrepreneurs have been interviewed. For the digital entrepreneurs, the sample reached its saturation as no new concepts were emerging (Bowen, 2009; Corbin & Strauss, 2008; Saunders et al, 2019; Silverman, 2014).

Sample saturation is reached when no new themes are occurring, the data reached is thick, and no new insights are gleaned. This particularly occurs when data become familiar. As such, the researcher knew that after 31 entrepreneurs in the digital sector, data was rich, thick, and complex enough to satisfy the research objectives of the study (Bowen, 2009;

Corbin & Strauss, 2008). However, in the case of the fashion entrepreneurs, saturation was not yet reached but it contributed to the literature by adding nuanced and foundational data in an uncharted landscape. This ultimately would lead to potential developments in EEs theory.

3.4.2) Characteristics of the sample:

The segments of the digital businesses included software business services, artificial intelligence, technology wear, online freelancing platforms, 3D machines, health tech, fintech, education, mentorship, and networking. The digital entrepreneurs were predominantly males compared to only 3 females. Also, the sample fulfilled the requirement of owning and managing SMEs that employ a minimum of 10 employees to over 50.

The age of the entrepreneurs ranged from 20 to 40 while the majority of the entrepreneurs were in their mid-20s to early 30s; a finding which indicates that the Egyptian youth post-2011 revolution is embracing self-employment compared to earlier generations especially when only in their 40s. Finally, the valuation of their businesses ranged from a minimum of 500,000 dollars to over 5 million dollars while eight refused to reveal their valuation for confidentiality.

On the other hand, the lack of business literacy of the fashion entrepreneurs made them unaware of the meaning of a business valuation, so this reference frame for the fashion entrepreneurs was unavailable. The segments of the fashion businesses were in both jewellery and clothing they were predominantly below the age of 25 with the youngest only 19 years old.

The sample was all females; all employing from a minimum of 3 to a maximum of 10 (see Appendices 1 & 2). Tables 3.1, 3.2, 3.3, and 3.4 break down the characteristics of the sample interviewed.

Table 3.1: The sex of the digital and the fashion entrepreneurs

Sample Sex	Males	Females
Digital sector	87% (N=28)	13% (N=3)
Fashion sector	0	100% (N=10)

Source: Author

Table 3.2: The age of the digital and the fashion entrepreneurs

Sample age	In their 20	In their 30s	In their 40s	In their 50s
Digital sector	39% (N=12)	39% (N=12)	22% (N=5)	N/A
Fashion sector	45%	27%	27%	1%

Source: Author

Table 3.3: The employees of the businesses of the sample of the study

Number of employees	10-20	21-49	50+
Digital sector	33% (N=10)	34% (N=11)	33% (N=10)
Fashion sector	100% (N=10)	N/A	N/A

Source: Author

Table 3.4: The valuation of the businesses of the sample of the study

Business Valuation	Less than 1M	1M-5M	5M+	N/A
Digital sector	29% (N=9)	35% (N=11)	10% (N=3)	26% (N=8)

Source: Author

3.3.3) Data access:

The researcher considered businesses of economic, as well as, social impact to have 1) participated in the GITEX, Davos, and Rise summits of 2019-2020, 2) had businesses featured in prominent Egyptian magazines and media outlets of Phasion, Magnitt, Menabytes, CairoScene, Startup scene and other business-related informant gateways and/or 3) their owners speaking about their businesses in the famous Ted Talks show as displayed in tables 3.5 and 3.6 that concludes the primary sources used for data collection.

Accordingly, all of the owners interviewed in this study had their businesses discussed at various platforms to recognise their contribution to the Middle East and North Africa (MENA) region and Africa. For example, many of the samples of the digital entrepreneurs were featured in Egyptian newspapers specifically in the sections of 'Best 25 under 25' of the Start-Up scene such as SA¹⁴, DA, and SnA¹⁵ cases.

¹⁴SA was featured in Start-Up scene, <https://thestartupscene.me/BehindTheStartup/25-under-25-The-Young-Entrepreneurs-Reinventing-Egypt>

¹⁵SnA was featured in Arab News and CNN, <https://www.arabnews.com/node/1765596/middle-east>

Also, 2NN had her business widely acclaimed for being the first platform for freelancers in both MENA and Africa and appeared on many TV programmes narrating her story. Finally, some of the entrepreneurs gave TED Talks at Egyptian universities and received international acclaim at European business competitions such as NA, 2AA and OMA; all aspects underpinning the clear contribution of the sample to the Egyptian economy and society. Similarly, for the fashion entrepreneurs, WSH did present her artwork at MSME.¹⁶ Day in front of Egyptian President Al-Sisi, while BM appeared in multiple Egyptian programs on TV showcasing her designs that were worn by famous Egyptian actresses. Another female fashion entrepreneur is JR who showcases her artwork at VIP avant-garde events.¹⁷ That serves the elite sector of the society of ministers and diplomats. She also was chosen to design the jewellery for the Egyptian Pharaonic parade.

Moreover, alongside data access from such informative gateways, relying on the researcher's network acted as a fourth source of data access. She relied on 9.6% of the sample whom she had professional relationships with that extend beyond 10 years. A main advantage of this source is that the interviewee, out of trust, can reveal personal and critical information that cannot be revealed otherwise (Saunders et al, 2019). Interestingly, it was MS who detailed situations of *rashwa*¹⁸ Such as the opening of “sealed envelopes to illegally win a tender after knowing the lowest bid price offered” as he mentioned. Such critical information would not have been shared had MS felt unsafe that it would be used against him one day.

¹⁶MSME is a public body responsible for developing regional craftwork and fashion
<https://www.msme.eg/ar/Pages/default.aspx>

¹⁷ those highly guarded events are by invitation only

¹⁸*rashwa* is a clear breach of the rule of law that could culminate in imprisonment

It is worth considering that those entrepreneurs are not media celebrities but rather the media is recognising their efforts because of their economic impact and social contribution.

Table 3.5: The prominent conferences, and summits in Egypt that acted as a source of primary data collection

National & International Conference / Summit & co-working spaces	Public or Private	Specialisation
Rise Up Summit https://www.riseupsummit.com/home	Led by the private sector under the auspices of the American University in Cairo (AUC)	The greatest platform that connects entrepreneurs with capitalists disseminating knowledge about entrepreneurship and investing. It's organised by the end of each year at the Pyramids.
The Greek Campus https://thegreekcampus.com/	Its premises are at the American University in Cairo (AUC)	A platform for entrepreneurs to connect in a spacious location that accommodates up to 140 start-ups through lease
Al Maqarr https://www.almaqarr.com/en	A privately-owned incubation	Co-working space for businesses and incubation
Egypreneur https://www.egypreneur.com/	A privately owned business platform and incubation	A platform for mentoring entrepreneurs. Has been intact since 2010 and is a leader in entrepreneurship in Egypt
Cairo ICT Summit https://cairoict.com/	A publicly owned summit	A platform and exhibition for networking and showcasing tech start-ups
GITEX https://www.gitex.com/	A publicly owned summit organised under the auspices of the Dubai government	The biggest summit in the MENA region gathers businesses, investors

		customers, and multiple parties of an ecosystem in one place. It is organised weekly.
Davos https://twitter.com/davos?lang=en	International-summit organised under the auspices of the World Economic Forum (WEF)	The 2019 version of this summit was organised in Jordan.
Turathena ¹⁹ http://turathna.eg/	A publicly-owned exhibition under the auspices of the Egyptian Government.	It is organised yearly and it is the largest exhibition for entrepreneurs to show their artwork or hand-made products from all over Egypt.

Source: Author

Table 3.6: The main magazines and newspapers in Egypt that acted as another source of primary data collection

Online media sources for Business	Specialization & Location
MENAbites https://www.menabytes.com/	Covering of technology and businesses in the Middle East and North Africa (MENA)
Wamda https://www.wamda.com/	Investment news about businesses in the Gulf and MENA
Start Up Scene https://thestartupscene.me/	All related news about start-ups in Egypt. It has a section for “best 25 under 25” and “best 30 under 30”
Flat6Labs https://www.flat6labs.com/	An online platform covering the business scene in the MENA region. It also has its dedicated business incubation.
Magnet https://magnitt.com/	With premises based in Dubai, it is an online platform concerned with the start-up scene in the MENA region. It features lots of prominent businesses in the region.

Pashion https://pashionmagazine.com/	A prominent magazine for fashion and artwork in Egypt
Vogue Arabia https://en.vogue.me/	A subsidy of the global magazine Vogue. It has a section on businesses and lifestyles in fashion and artwork.
Egypt Today https://www.egypttoday.com/	It is an online newspaper offering recent news about Egypt with a prominent section on Businesses in Egypt under the sub-section of Business Today.
4 Sherif Madkour Street ²⁰ https://www.youtube.com/@Alhayahtvnetwork	Named after its famous presenter. It is a prominent TV programme that addresses female topics of the hour similar to <i>Loose Women</i> in the UK and features female success stories. It's a daily show at 4 pm.
Women don't know how to lie. ²¹ https://www.youtube.com/channel/UCRukeVa-CYD4A4R1XvgAb_w	A TV programme that addresses topics of the hour by women and for women. It is similar to <i>Loose Women</i> in the UK. It is a daily programme in the afternoon.

Source: Author

3.4.3) Phases of data collection:

Data collection included two phases; a pilot study conducted during the fall of 2019 with the digital entrepreneurs followed by another elongated primary and secondary data collection phase from March 2020 until September 2021²². Phase one included face-to-face interviews with a sample of six digital entrepreneurs at coffeehouses in Maadi, Downtown, and New Cairo; all close to their workplaces.

²⁰4 شارع شريف (4 sherif madkour street), transliterated at Sherif Madkour street

²¹الستات ميعرفوش يكذبوا (Stat mayerafoosh yekdebo) transliterated as woman don't know how to lie

²²The uncertainty of Covid-19 was the main reason behind the elongation of this process for more than a year. Lots of entrepreneurs were reluctant to talk

The distance from the researcher's location to the destination included more than two hours except for an entrepreneur who was already close to her location. The participants of the pilot were all males, ranging from 20s to late 40s, while their annual turnover ranged from a minimum of 500,000 to 5 million dollars. The pilot phase offered interesting and unexpected findings that guided the second round of data collection. For example, the pilot phase expanded on the first version of interview questions by adding new lines of inquiry as in Figure 3.7 to serve the purpose of those surprising findings. An interesting line of inquiry that addressed the dark side of social capital due to cultural reasons was not considered at the pilot "first round of data collection", so this section was added in the second phase (See Appendices 1-4).

Second, another interesting line of inquiry was added that discussed the impact of the voids on EEs regarding the impact of the ecosystem on the individual entrepreneur. For example, whenever the question was addressed how the voids impact the entrepreneur, the answer was directly to how this impacted the mental well-being of the entrepreneur. Third, a line of inquiry that addressed how the digital ecosystem is evolving has been added to the interview questions. This finding was interesting and unexpected considering that industries in emerging economies operate within a context of the void, so discovering that one of the EE is evolving shifted the researcher's mental model. Finally, social media as a means of active online communication and networking was not considered before the pilot sample because the mainstream research on the geography of entrepreneurship addresses the spatial concentration and the geography of entrepreneurship, so this interesting finding expanded the research paradigm and added interesting dimensions.

The second phase dealt with interviewing the remaining sample of the digital, as well as, the fashion entrepreneurs virtually through the application of *Zoom* due to the outbreak of Covid-19 as well as through phone interviewing. On the other hand, most of the fashion entrepreneurs preferred phone calls rather than *Zoom* because they were not avid users of the software, unlike the tech-savvy digital entrepreneurs. The advantages of online interviews are their timesaving and cost-effectiveness compared to face-to-face ones especially considering the location of some entrepreneurs. As an example, two hours were spent commuting to the destination of the entrepreneur; a challenge that online and phone interviews mediated. Moreover, a benefit of phone interviewing is the anonymity of the interviewees which increases the chances of obtaining personal and sensitive matters (Saunders et al, 2019).

For example, JR stated that she had a very aggressive response and verbal abuse that included a sexual innuendo in the Egyptian context while dealing with the male craftsmen in Egypt. It could be understood that the anonymity of the interviewee helped in eliciting such a finding. However, a challenge of phone interviewing is the lack of face-to-face opportunity that could compromise building a rapport with the interviewees (Saunders et al, 2019). To mediate this challenge, the researcher started the interview with small talk that acknowledged the contribution of the entrepreneurs to the rising Egyptian fashion ecosystem, as well as, asking them to talk about their business success stories.

The lack of face-to-face interviewing aided in the acquisition of full and open data on the negative mental well-being of the fashion entrepreneurs which is categorised as confidential data. Another method of interviewing was internet-mediated interviewing through *Zoom*. The advantage of the *Zoom* interviewing mode was the comfort of the entrepreneurs during the interview because they were in their familiar and safe places; a matter which aided in the acquisition of full and open data (Saunders et al, 2019).

Table 3.7: The new threads of inquiry post the pilot phase

Line(s) of inquiry	The first version of the interview questions	Amendments to the interview questions
Aversion to social capital and its dark side in business	No	yes
Impact of the ecosystem challenges on the individual entrepreneur	No	yes
Adding a question on how the financial domain is evolving for the digital sector	No	yes
Adding parts to online & offline networking	No	Yes

Source: Author

3.5) Qualitative data collection methodology:

To ensure validity of data, the researcher collected primary and secondary data from multiple sources as follows:

3.5.1) Secondary data collection:

Secondary data collection took place at the early stages of the research design and in tandem with the primary collection method of interviewing. Secondary sources included governmental websites that held reports and documents revealing day-to-day business operations and relevant news in Egypt and/or the MENA. Those sources provided contextual data that enriched findings when compared with primary ones in what's commonly known as triangulation.

Triangulation in qualitative research means gleaning data from two or more perspectives. It therefore promotes the findings' validity by offering multiple sources on the same topic of study (Denzin & Lincoln, 2018). For example, reports were extracted through online websites such as the Central Agency for Public Mobilisation and Statistics (CAPMAS²³), Information Technology and Industrial Development Agency (ITIDA), Egyptian Micro, Small and Medium Enterprise and Development (MSMEDA)²⁴, as well as that of Global Entrepreneurship Monitor (GEM)²⁵.

²³CAPMAS, <https://www.capmas.gov.eg/>, a publicly-funded body issuing data and statistics.

²⁴ MSMEDA, <https://www.devex.com/organizations/egyptian-micro-small-and-medium-enterprises-development-agency-msmeda-129670>

²⁵The British university in Egypt (BUE) was the sponsor of GEM of Egypt till the American University in Cairo (AUC) took over lately.

Those websites provided essential and updated data for the analysis. For example, when digital entrepreneurs discussed the prominence of the venture capitalist industry in their ecosystem, relevant financial indicators were used to support the findings.

3.5.2) Interviews:

Qualitative data collection can include a wide array of tools such as interviews, focus groups, questionnaires, and field observations (Eisenhardt, 1986; Saunders et al, 2019). This explorative study employed the method of interviewing to collect data. Interviews are usually employed when a study is guided by an explorative purpose that seeks to interpret the understanding of his/her social worlds in a manner that observatory field studies do not offer (Saunders et al, 2019; Silverman, 2014). Interviews are either open questionnaires, semi-structured, or in-depth. Structured interviews include rigid questionnaires that leave little to no room for the participant to deeply reflect, conversely, semi-structured and in-depth or open interviews are relatively flexible for detailed elaboration on specific themes (Saunders et al, 2019; Silverman, 2014).

Interview questions of this study were both; open-ended and semi-structured because those types will encourage the entrepreneurs to reflect on their experiences to reach complex, thick, and rich data. Lines of inquiry were extracted from a literature review of EEs, social capital, and institutional voids. This includes questions on the characterisation of financial, human capital, and market voids, as well as those relevant to social capital as a mechanism for access, utilization, or resistance (See Appendices 2 & 4).

In his book, Silverman (2014, p.173 & 379) elaborated on the benefit of starting lines of inquiry with a sequence of 'how' and/or 'what' followed by 'why' to delve into deeper insights. A total of 70 questions were divided into three sections whereby each section addressed a corresponding research question.

The first section started with 'what' questions to inquire about the characterisation of human, financial, and market voids for both industries. Questions starting with 'how' in the second section sought to clarify our understanding of the utilisation of social capital to cope with each void. Finally, questions of both 'what' and 'how' were crafted to illuminate the researcher on the impact of the voids of both ecosystems. Also, for the second and the third sections, questions with 'why' followed up to understand *why* social capital was employed as a coping mechanism or *why* there was resistance to it.

The researcher sought to build a rapport with each interviewee by discussing their success stories and acknowledging their positive contribution to the ecosystem. Each interviewee was sent an email invitation letter for an interview (see Appendix 5). All interviews were conducted in Arabic and then translated into English making use of the fluency of the researcher in both languages.²⁶ Arabic is the prime local language in Egypt, so it is chosen because it is the mother tongue language shared between the interviewees and the researcher. Also, the mutuality of the local language aids in overcoming cross-language barriers (Welch & Piekkari, 2006) and cultural misunderstandings, so this deepened the purposeful utilisation of Arabic for the interviews.

²⁶The researcher is certified in English to Arabic translation and versa, earning her certificate from the American University in Cairo (AUC) from 2008 till 2012

In their book, Saunders et al (2019, p.448) mentioned that cultural differences between the interviewer and the interviewee act as a challenge that undermines the quality of findings due to stereotypical nuances (Saunders et al, 2019). So, the fact that both the sample and the researcher belong to the same cultural background rendered this challenge much less of a concern and aided in building the rapport for interview effectiveness. All the interviews were recorded, saved on *Zoom*, and transcribed manually due to the absence of a wide variety of multilingual transcription and translation services. For example, the researcher tried the software *Gglot* with the English to Arabic or versa software, but it was not successful as the content was transliterated without any subtle meaning.

Indeed, another tool that facilitated the data collection process was the use of field notes that highlighted themes drawn from each interview (see Appendix 6). The interviews' lengths varied between a minimum of an hour and a maximum of three hours. Worth to mention that digital entrepreneurs were well aware of the English terminology pertinent to the research such as; 'ecosystem', 'angels', 'incubators' and 'venture capitalists'. Being fluent in English, they also resonated with the general research questions and sometimes answered in English though, ironically, the questions were offered in Arabic in the first place. This mutual language of understanding and communication which alluded to high levels of business literacy facilitated the flow of a smooth conversation with some reflecting on how 'comfortable' they had been throughout the interview (see a sample of interview questions Appendix 7).

Conversely, the fashion entrepreneurs were not even aware of the meaning of an 'entrepreneur' which was replaced with 'businesswoman' by the interviewer. Their clear lack of business literacy meant they were unaware of any of the terms used in the context of the interview such as 'venture capitalist', 'angels', and /or 'incubation'. This led the interviews to take longer time than expected just to explain because of further clarifying the meaning of those business terms.

3.6) Data Analysis:

3.6.1) Stages of data collection:

3.6.1.1) Stage one: coding:

After collecting chunks of data and ending the interview phase, comes the stage of coding that dissects the interview corpus. Corbin and Strauss (2008) referred to this stage of coding as data mining, whereby the researcher pays meticulous attention to digging beneath the surface to unveil the rich dynamics or hidden treasures of the interview corpus (Corbin & Strauss, 2008; Miles & Huberman, 1994; Saldana, 2013). Charmaz (2006) metaphorically summarises qualitative analysis steps as a skeleton whereby coding represents assembling the bones of a skeleton while analysis is setting flesh to those bones.

Codes are prompts or triggers for deeper reflection on the data's meanings (Miles et al, 2014) so, at the coding stage segments of data are named in concise terms (Charmaz, 2006). Coding includes two cycles; the first cycle is an initial phase of the 'what-indexing' whereby the researcher breaks down the interview content into discrete segments of data before building a

coherent analytic frame (Saldana, 2013; Charmaz 2006). The second cycle offers answers to the why, how, when, who, and where of coded texts to sensitise the first codes (Charmaz, 2006; Gibbs, 2012). The outcome of this first cycle stage is a list of provisional codes applied to data chunks which are likely to be renamed throughout the iterative process of data analysis to improve the fit (Charmaz, 2006; Miles et al, 2014). Miles and Huberman (1994) suggested that initial codes can be as many as 12 to 60 codes while Creswell (2012) starts with a short list of six categories before expanding them into 25-30 categories of information. This study had a total of *103 initial codes*.

The provisional list of codes included five codes descriptive, Invivo, process, emotional, and value/taxonomy based on Saldana's (2013) identification of 32 types of codes. Known as the bread and butter of coding, the dominant type of coding was *descriptive* as codes were assigned based on general keywords and/or nouns according to the substance of the transcribed passage (Saldana, 2013). Data related to characterising each void falls under this category because entrepreneurs were able to define their ecosystem. The second most commonly employed type used was *Invivo coding* or what Corbin and Strauss (2008) and Charmaz (2006) referred to as the insightful analytic tool of language for its role in conveying meanings of the participants' perspective of their world (Charmaz, 2006; Creswell, 2012).

Invivo is transliterated to in that which is alive, and it entails a short phrase extracted from the actual language used by the key informants. As Saldana (2013) suggests that this type of coding refers to behaviours on how certain problems were resolved. Codes addressing coping mechanisms and behaviour to mediate the voids fall under this type.

A third type of coding that is strikingly similar to In vivo coding is *process coding* (Saldana, 2013), which assigns codes to strategies and routine actions that emerge, and change based on the sequence of time, so it is commonly referred to with the gerund “-ing” (Miles et al, 2014; Saldana, 2013). Accordingly, this type of coding was employed when the sample referred to specific networking activities either through social media presence or in-person events such as attending the annual Rise-up summit and traveling with *Elre7la* business camps.

A fourth type employed was *emotion coding*, which refers to the feelings that participants experience whilst investigating their inherent cognition. Emotions are psychological states evoking propensities of action, so their identification is part of the research context offering deep insight into research quests (Corbin & Strauss, 2008; Saldana, 2013). This type of coding has been the dominant type whilst coding the impact of regional voids as the challenges that the entrepreneurs had encountered were proven to substantially affect their psychological well-being. For example, the constant feelings of depression, anxiety, and/or feelings of burnout were assigned to this code type as a vital illustration of the analysis of regional ecosystems.

Another similar coding to the emotion one is *value coding* which was employed when the digital sample discussed reasons for resistance to social capital that violate their values. This coding also included phrases that are related to the cultural context of Egypt. For example, *assham* reflects on the dark side of social capital in business as it opens the door to emotional abuse or evading workspace duties.

As Saldana (2013) suggests that taxonomic coding relates to the discovery of the cultural knowledge people use to guide their behaviours and interpret their experiences. This type was employed multiple times across the study. Table 3.9 displays the categorization of the 103 lists of codes used at the first stage of the data analysis.

Table 3.9: The codes used at the first stage of data analysis

Code type	Definition of type	Example from interview corpus
Descriptive	Assigned based on general keywords according to the substance of the transcribed passage are	"I am not aware of any networking events in our industry and I don't think you will find them due to the competition rife in the industry" by SHH "Scarcity of qualified talent and absent punctuality act as my prime business challenge" by SA
Invivo	Transliterated as "in what is alive", this type is assigned to data that conveys meanings of the participants' perspective of their world	"I have to do the work of my employees myself to meet the client project delivery on time without delays" by SA "I have to supervise and micro-manage the artwork of <i>Sanayee</i> to ensure they meet the requirements of the jewelry designs" BM.
Process	Described as "gerund codes", this code is assigned to data that discuss routine actions based on the sequence of time.	"I have learned the tips and tricks of business from going to <i>alre7la</i>" or the trip business camp" by AN "I prefer sharing on Facebook the question as I receive instantons responses from a wide community of people"; "I love this sharing of information of online interactions"; 2NN.
Emotional	Offering vital cues about a research topic, this code assigns psychological states and deals with data that address	"When I deal with <i>sanayee</i>, you know, <i>target dam</i>" or boiling of blood" by WHS

Code type	Definition of type	Example from interview corpus
	emotions or states of mind such as happiness, depression, and uncertainty.	"I have to work 12 hours daily with no consistent holidays to follow up with my employee's belated submissions of my client projects" to MA.
Values/taxonomy	Assigned to data about cultural contexts of personal values that guide the sample behaviour and life experience	"I would not prefer to rely on social capital for reasons of <i>assham</i>" by 2AA. "I do not like to even be involved in bartering or <i>hat we khod</i>" by KOM "I do prefer my autonomy and independence rather than relying on my family for financial support" to NA "I think relying on family is justified as I can save for later business stages" by IY.

Source: Author

3.6.1.2) Stage two: categorising:

The data reduction stream of Miles & Huberman's (1994) method underpinned this stage. At this stage, the researcher immersed, scrutinised, and reflected upon the starter list to condense the previous cycle 103 codes into meaningful categories (Creswell, 2012; Charmaz, 2006; Miles & Huberman, 1994; Saldana, 2013). The main functionality of this interactive-coding stage is tying the sparse data of the aforementioned 103 codes altogether into a more organised number of threads guided by the aim of patternmaking and/or interrelationships-formulation to develop salient categories from large batches of data (Creswell, 2012; Miles et al, 2014; Saldana, 2013).

It is at this stage when codes of the first stage either decay, get broken down into sub-codes, or flourish as independent categories. The main task of this second stage is to move away from general descriptive codes into more specific ones (Gibbs, 2012) and 'code-weave' or group similar codes together into a *smaller number of analytical categories* (Charmaz, 2006; Saldana, 2013). Although there is no infallible procedure that performs how codes can be converted into categories, but categories in this study were framed based on the analytic treatments of; Creswell (2012), Charmaz (2006) Saldana (2013), and Patton (1990), as follows;

- 1) the frequency, saturation, and significance of large amounts of illuminative data which Patton (1990) referred to as recurrent regularities worth convergence.
- 2) the striking conceptual similarities between, differences, and/or deviances from codes
- 3) correspondence, causation, or correlation of coded text.
- 4) unusual and interesting concepts to the researcher (Patton, 1990; Saldana, 2013; Charmaz, 2006; Creswell, 2012; Saldana, 2013).
- 5) splitting general codes of earlier cycles into parents, children, or/siblings in a classified hierarchical scheme displaying those interrelationships in a meaningful construct, known as sub-coding.

For example, categories with the codes of 'reasons against social capital', 'reasons for social capital', and 'relying on own individual efforts' were consolidated for both ecosystems as coping mechanisms.

Also, a pattern of ‘reasons against venture capitalist sector’ for the fashion entrepreneurs and ‘strength of venture capitalist industry’ for digital entrepreneurs flourished as independent categories for theory development. The outcome of the categorising stage is a cognitive map illustrating the complex interactions between categories within-case (Charmaz, 2006; Miles & Huberman, 1994; Saldana, 2013). A cognitive map is an ‘elegant’ and more effective analytic tool in illustrating the dynamics and the complex clusters within and between domains culminating in the conclusion (Miles et al, 2014).

3.6.1.3) Stage three: conceptualising:

Themes (Creswell, 2012; Charmaz, 2006) and/or concepts (Saldana, 2013) emerge in the third stage. This stage is a manifestation of focused coding referred to as thematic coding (Charmaz, 2006; Saldana, 2013). Themes are broad domains of information that consist of several codes aggregated to a common idea in the form of a structure of multiple family units with children and grandchildren delineating segments of codes (Creswell, 2012; Charmaz, 2006). Described as a more abstract construct, the main functionality of this stage is to weave together the combined threads into a coherent fabric by justifying how categories systematically interrelate in a comprehensible manner (Creswell, 2012; Charmaz, 2006). This stage conceptualises how categories may relate to each other as hypotheses in a theory (Charmaz, 2006). The interactivities of such family units underpin the dependency of categories while trimming and refining theoretical domains (Charmaz, 2006).

Thus, the tasks of this stage are to winnow the data, combine categories, and reduce the codes of stage two into a manageable set of themes (Charmaz, 2006; Creswell, 2012). Eventually, the outcome of this stage is to conceptualise codes, hone analysis and add depth.

Table 3.9: The stages of data analysis

1 st stage coding	2 nd stage categorising	3 rd stage conceptualising
<i>"I did win the 3rd position and was granted 100,000\$ at its round"</i> AnS.	Support of VC	Differences between both ecosystems in terms of financial capital domain
<i>"I prefer my fashion business to be free from such financial obligations"</i> RJ.	Rejection of VC	
<i>"I wouldn't like to involve my family in such risky business?"</i>	Aversion to social capital	Social capital did NOT play any role in mediating financial capital void but did play a positive role in fashion ecosystem
<i>"I don't see any problem in resorting to family and friends for social capital, is there?"</i> HSH	Support of social capital	

Source: Author

As evident in Table 3.10 displays the stages of data analysis, at the third stage, cross-cases were compared and contrasted to each other to elaborate on both ecosystems (See Appendix 8). Yin (2018) identified that cross-case analysis is conducted by 1) predicting similar results (a literal replication) or/and 2) predicting contrasting results (theoretical replication). As such, themes of financial capital, human capital, market capital, social capital utilisation, and each void impact were the reference frames of this comparative stage.

Visual tools of cross-case analysis were represented through matrices, tables, and graphs that delineate comparative patterns and clustering of data before conclusions are drawn (Saldana, 2013; Yin, 2018).

3.6.1.4) Data Analysis using NVivo:

Computer-assisted software packages do not mitigate the role of the researcher in interpreting data, but they document files by storing and organising discrete units of interview content (Bazeley & Jackson, 2013; Creswell, 2012). This study relied on NVivo to manage chunks of interview data see Appendix 8). At the initial phase of coding, NVivo aided in developing and mapping codes known as nodes. At the second and third stages of analysis, it segmented common phrases and/or contrasted nodes against each other to deliver the later stages of conceptualisation (Creswell, 2012; Saunders et al, 2019). For this study, the main benefit of NVivo was recording and sub-coding data within family units known as parent and children codes in the software. It is noteworthy to mention that the researcher was careful not to fall into the trap of putting piles of raw data under a certain code; a challenge that was highlighted by Corbin & Strauss (2008). Therefore, the researcher took enough time to reflect on the data with the aid of memo-writing.

A reflective memo fuels the analysis and supports the production of a compelling argument (Corbin & Strauss, 2008). This study, aided in absorbing the overwhelming floods of information and specific remarks about the interviewee or the surroundings (Miles & Huberman, 1994). For example, at the time of data collection, a memo included how SA cursed certain incubators in Egypt many times during the interview and was angry throughout the interview especially when he was discussing how the elites rule the digital ecosystem.

Memos, written at the time of data analysis, documented the iteration between the stages of analysis to show how codes were sub-coded, renamed, or re-arranged to aid in the final production of a whole framework (See Appendices of 9 & 10).

3.7) Trustworthiness and quality of research findings:

Qualitative research has its challenges that pose risks to finding quality in terms of validity, reliability, and generalisability. The next section discusses those aspects and the measures undertaken to ensure each is ascertained as Table 3.11 outlines how each measurement is maintained.

3.7.1) Research validity/credibility and trustworthiness:

Validity means probing data from more than one perspective to ensure credibility so that multiple pieces are put together for a compelling whole (Creswell, 2012; Eisner, 2017; Saunders et al, 2019). This aspect has been achieved by triangulation or what Eisner (2017, p.99) referred to as ‘structural corroboration’. Methods of triangulation can be multiple data sources, multiple methods of data collection, or multiple theorists to analyse data (Saldana, 2013). The role of triangulation is to inspire confidence when multiple types of data are compared to each other to either support or contradict the interpretation of affairs (Eisner, 2017). For example, the surprising findings of the evolution of the market and financial domains of the digital ecosystem were supported by secondary data from multiple newspapers, and governmental and media reports that ensured its trustworthiness.

Second, the fact that digital entrepreneurs stated that they have active online networking activities by enrolling in multiple Facebook groups had already been validated by the actual existence of those groups online. Similarly, the fact that the fashion entrepreneurs stated that online groups in their industry acted as marketing hubs has been validated as well. Third, the researcher is a member of all the groups mentioned by the sample to an eyewitness, corroborate the findings, and ensure their trustworthiness.

3.7.2) Research reliability/dependability:

Reliability is achieved when multiple researchers offer a consensual agreement to the findings, however, isomorphism is unachievable in that case. This is because qualitative data collection is bounded by a spatial-time context and each researcher brings his/her background and interpretations to the description, so the consensus is elusive (Eisner, 2017; Saunders et al, 2019). This means that this study's findings are unique, unstable, and subject to change even if replicated by other researchers who would undertake the same design mechanics to answer the same research questions (Creswell, 2012; Saunders et al, 2019). Nevertheless, to ensure this study's data are understood as communicated by the sample, the researcher sent to each interviewee the transcribed content to maintain reliability. In some cases, the fashion entrepreneurs were sent voice notes on Instagram to ensure some data were communicated effectively.

3.7.3) Research generalisability/transferability:

Seeking generalisability from the findings of a qualitative research study is elusive because of its sampling-bounded nature. So, unlike the case of statistical sampling which can be transferred to other representative populations, qualitative research deals with deeply interviewing a limited number of samples within a particular context. This means that samples of the digital entrepreneurs, as well as those of the fashion ones cannot be replicated or transferred to other populations as they do not represent any other sample. So, this study's findings act as theoretical propositions when examined in other emerging contexts (Saunders et al, 3019). Second, generalisability can be applied when the findings are compared and contrasted with the literature review on the topic including not just corroborating data with evidence but also disconfirming and contradicting research conclusions (Einser, 2017; Saunders et al, 2019).

Table 3.10: The measurements undertaken to ensure the quality of the findings

Quality of findings aspect	Measures to meet the aspect
Validity/credibility & trustworthiness	-Triangulation, structural corroboration, or researcher bricolage by validating findings from multiple secondary sources
Reliability & dependability	-Though seemingly impossible to achieve in qualitative research due to the boundaries of spatial-time context, I sent the transcribed content to each interviewee for verification.
Generalisability	-The findings act as theoretical propositions for further research in other contexts similar to that of the research (I.e.; HGFs of digital and fashion businesses in emerging markets)

Source: Author

3.8) Ethical issues of data collection:

Before the interviewing phase, each interviewee was sent an email letter of consent. The email discussed the main themes to be addressed during the interview. Before the interview, each interviewee was told about the general ethical framework guiding the study including if they wished to not answer any question. Some of the entrepreneurs exercised this right when they declined to comment on the valuation of their companies for confidential reasons. Also, for the fashion entrepreneurs, none revealed information about the capital of their businesses or the profit, this means that the only category where the entrepreneurs refused to comment was the financial data. Second, the entrepreneurs interviewed are the elite rich and famous of their sectors in Egypt and the MENA, so they all have been referred to by their initials for anonymity. By the end of each interview, the researcher checked some of the sensitive information mentioned and further communicated it with the interviewee to ensure they were understood as communicated.

Examples of the sensitive data could be when one of the entrepreneurs mentioned that he publicly played down the clients on his website to avoid paying taxes. As well, another incident of a clear breach of law was when he said that he relied on close friends to unethically win a bid. His close friend would open the sealed envelope for him, so he could check the lowest bidding price and then offer lower than the least to eventually win the tender. Moreover, I did sign the ethical document by the University of Edinburgh rules by which the document was sought and obtained.

Finally, as the researcher promised the sample that the transcribed content would not be seen by any other researcher, so the transcribed interviews were saved on the laptop under anonymous encryptions only understood by the researcher to maintain the protection of the data and sample.

3.9) Chapter Summary:

This thesis is guided by an interpretive paradigm because findings will be based on how entrepreneurs as key informants of the processes of EEs evoke meaning in their own subjective reality. Therefore, how voids are described and how entrepreneurs employ social capital to fill their respective voids are not a priori constructs nor are they mere facts awaiting discovery but rather interpretive and exploratory in nature. The qualitative research method, as a see-through approach, is well-suited to an interpretive paradigm because studying the processes of EEs in emerging markets is an uncharted landscape that requires an in-depth investigation of 'why' rather than 'what' or 'how'.

Accordingly, as part of theoretical sampling that discusses entrepreneurship of impact, the researcher interviewed 41 entrepreneurs divided between 10 fashion to 31 digital entrepreneurs in Egypt. The researcher considered businesses of economic, as well as social impact to have 1) participated in the GITEX, Davos, and Rise summits of 2019-2020, 2) had businesses featured in prominent Egyptian magazines, business incubators, and media outlets of Phasion, Magnitt, Menabytes, CairoScene, Startup scene and other business-related informant gateways and/or 3) their owners speaking about their businesses in the famous Ted Talks.

The interview questions of this study were both; open-ended and semi-structured because those types will offer complex, thick, and rich data on the unknown phenomena of the process of EEs in emerging economies. Lines of inquiry were extracted from a literature review of EEs, social capital, and institutional voids. This includes questions that address the characterisation of financial, human capital, and market voids, as well as those relevant to social capital as a mechanism for access, utilisation, or resistance. Data analysis included a process of iteration between the three cycles of coding, categorising, and conceptualising before arriving at the conclusion known as the 4Cs in this thesis.

Stage one, coding is data condensation whereby I transformed extractions from the interview corpus into 103 codes based on In-vivo, process, emotion, value, and description. Then, at the second and third stages, the researcher assembled 103 codes as segments of data into a compact body of information based on identifying patterns, explanations, and causal flows before arriving at a sharp and well-defined leading to the conclusion. To ensure the validity and reliability of the findings, the researcher employed the triangulation method by relying on multiple data sources of data collection, also some of the data were communicated to the interviewee to ensure they had been understood correctly or as intended by the interviewee. Figure 3.12 below explains the flow chart of the research process and the interlinkages between the thesis objectives, governing paradigm, and research design.

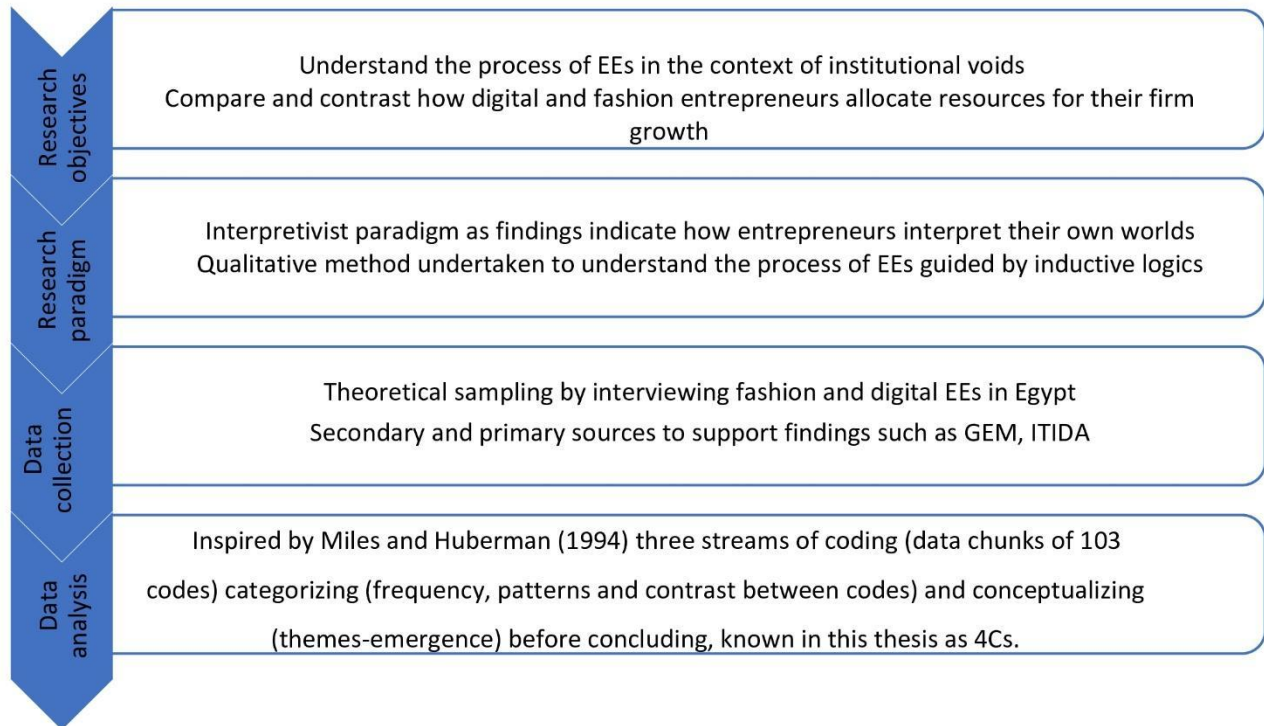


Figure 3.2: The flow of the research process of chapter three

Source: Author

Chapter Four: Part One of Data Analysis

4.1) Introduction:

As stated in earlier chapters, the overarching research objective of this thesis *is to study how local entrepreneurs in regions of institutional voids draw on their regional resources to explore, evaluate, and exploit the opportunities to scale up firms*. This research objective corresponds to unanswered questions in the literature on EEs in terms of *How entrepreneurs access resources in contexts of institutional voids? How do elements of an EE cohere for the growth of firms of impact?* and *How do local entrepreneurs in Egypt draw on their regional resources to create opportunities and thus fill their institutional voids?* The primary research question is what are the characterisations of the digital and fashion EEs in Egypt in an attempt to study the processes of both ecosystems, three research questions are derived as 1) *What are the characterisations of the digital and the fashion human capital, financial capital and market voids in Egypt?* 2) *What role does social capital (SC) play in mediating the voids for both ecosystems?* and 3) *What is the impact of the institutional voids on the effective functioning of the digital and fashion EEs?*

The qualitative research method was undertaken by interviewing a total sample of 41 entrepreneurs divided between 31 digital and 10 fashion entrepreneurs operating in Egypt. This chapter is Part One of the data analysis that deals with presenting the research findings. The unit of analysis of this chapter is digital and fashion ecosystems, so that each of the three research questions are presented within the respective ecosystem.

Section One of this chapter displays the constituents of the digital human capital, financial capital and market institutional voids, then how digital entrepreneurs employed social capital to fill those voids followed by the impact of their approaches on the digital EE. Section Two displays the constituents of the fashion human capital, financial capital, and market institutional voids, then how fashion entrepreneurs employed social capital to fill those voids followed by the impact of their approaches on the fashion EE.

4.2) Digital Entrepreneurial Ecosystem (EE):

4.2.1) The characteristics of the digital human capital void:

4.2.1.1) Scarcity of workforce talent:

The entrepreneurial ecosystems literature concludes that a wide pool of talent is a precursor for a healthy ecosystem because such knowledge-bearers bring their innovation, technical and managerial skills which the owner cannot perform solely (Cohen, 2006; Malecki, 2018; Stam, 2015). Contrary-wise research findings suggest that the scarcity of qualified talent was a main characterisation of the digital human void detriment to the underdevelopment of its ecosystem. The digital entrepreneurs unanimously defined the scarcity of digital talent to be in terms of their workforce's poor critical thinking and innovation skills. For example, 2AA addressed such a challenge by saying "I do believe that valuable human assets are scant, especially in the area of the back-end software development. This area is especially important to any designer because it requires innovation and systems thinking".

This is similar to SnA who said “the problem is that I am not finding anyone to challenge me mentally and have good critical thinking skills. I really want to find anyone who could challenge me”. MA quoted “my workforce shows no hunger or personal efforts in investing for their individual growth, they have to be spoon-fed what they should be doing without showing any agency on their own for their own lives”. Likewise, IA noted “the problem lies in the personality, the Egyptian personality, the workforce does not believe that it is their responsibility to invest in upgrading their skills and education”. Such a finding is strikingly similar to what his counterpart HA referred to lack of leadership and proactive initiatives. In such a vein of lack of investment in personal development, MS said “you know, they do not update their skills, for example, my workforce is not acquainted with updated versions of Microsoft Excel. They are still limiting their knowledge to the early version of Excel 2003 which they had learned at their early years of university without any progress afterward”.

The predominant lack of critical thinking skills, innovation, and proactivity amongst the digital workforce can be possibly understood in the context of the socialisation process which KOM referred to as a ‘flaw in the Egyptian personality’. KOM, a venture capitalist and a business owner himself, stated “I believe Egyptians’ aversion to risk-taking, and proactivity is traced back to the parental upbringing style whereby parents are expected to fulfil the needs of their children without encouraging them to be responsible for their own actions”.

4.2.1.2) Divide between the quality of private and state university graduates:

A second element of a healthy human capital domain is the prevalence of quality academic institutions that graduate workforce armed with wisdom, knowledge, and expertise necessary for firm growth and development (Lee et al, 2004; Stam, 2015). Conversely, data findings unfold a deep class division within the fabric of Egyptian society. This is because the quality of educational institutions varies between state and private education which the digital entrepreneurs identified as a second element of the human void. Reports by the Central Agency for Public Mobilization and Statistics (CAPMAS)²⁷ reveal that in 2017 that 25 state universities were graduating 2.2 million students who are educated for free, conversely, for-profit private universities graduated around 138,000 students (El-Hadidi & Kirby, 2016).

In fact, the digital entrepreneurs referred to a dramatic difference in the quality of education between state and private educated workforce to obligate them to pick a graduate of the private universities. For example, HA quoted “although I do not support education to be a privilege for the rich, but I have around 70% of my workforce being American University in Cairo (AUC) graduates as they are equipped with better skills than state-graduates”. Such a divide between private and state-educated workforce can be understood in terms of the former endowment of communication competencies and business skills, as well as the mastery of a wide range of international languages compared to their state counterparts.

²⁷ CAPMAS is the Egypt Central Agency for Public Mobilization and Statistics. It’s an official public body for data collection.

Described as “*falta*” or exceptional, AHS remarked “the privately educated workforce are actually *falta* as they excel in presentation skills which are not taught at any state school”.

Likewise, IA said “my workforce has no idea about good presentation skills, and I believe this should be taught as a module at schools”. Similarly, IY mentioned “state-owned graduates are not even aware of how to write a good CV or even how to adjust their photos to fit a presentable CV. Those such poor presentation skills to the absence of career and personal development courses from all state curricula”.

Indeed, private universities such as the American University in Cairo (AUC) do offer business and entrepreneurship centres to develop the human capabilities of its graduates immanent for their career prospects (Abou Warda, 2015) while such programmes are largely absent from state universities. Mastering good business and presentation skills positively represents digital firms at international conferences; a matter which KOM described to be essential to increasing his firm sales. KOM said “I usually send privately educated employees to summits because their skills, education and their confidence reflect favourably on my firm image”. One possible reason for poor state education is the abolition of fees in the educational Egyptian system. Such a challenge has been reflected upon by MS who quoted “the educational system produces a workforce who are very good at *samm* or retaining information rather than understanding what the educational content is about”. This is similar to the digital entrepreneurs SnA, MS and 2NN who lamented the Egyptian state pedagogy for producing poor quality personnel. SnA quoted “even in medicine, the educational content is rather theoretical than of practice”.

4.2.1.3) Lack of commitment to deadlines:

Data findings suggest that the third element of the digital human void was the lack of their workforce commitment to deadlines. MA noted “actually one of the challenges is that the workforce has absent punctuality as there are usual and consistent delays in project submissions”. Also, SA, who has a leading educational tech company in MENA, quoted “the workforce does waste lots of time. I believe that they do not appreciate *qemet waqt* or the value of time”. Similarly, their counterpart FAA exemplified how much time is wasted in vain by noting “my workforce engages in workplace behavioural deviance, so lots of time is wasted because you know, they prefer to smoke, chat and drink coffee which elongates their afternoon break session entitlement”.

This finding coincided with their counterpart DN who described such lack of commitment to deadlines to be sorrowful saying “actually their lack of commitment to deadlines is *ma’saat* or an inescapable tragedy in its own right”. Indeed, labour productivity in Egypt peaked in December 2018 with a low figure of only 7.3% while its productivity declined to only 3.08% in June 2021. This number stands in contrast with neighbouring countries such as Turkey with a relatively good productivity of 11.4% in December 2021 (CEIC, 2021).

4.2.2) The characteristics of the emerging digital financial capital domain:

Surprisingly and propelled by the Egyptian unicorns of *Fawry*²⁸ and *Souq*²⁹ which Amazon acquired in 2017, and the Egyptian digital ecosystem has been growing since 2011. It is therefore described as an active *domain* rather than a *void*. This interesting finding contradicts extant literature describing emerging economies as having financial capital voids (Ebrashi & Darrag, 2017; Khanna & Palepu, 2010) because the digital entrepreneurs *unanimously* agreed that the financial capital domain has been remarkable for the growth of their ecosystem. For example, HS said “the remarkable growth of the financial capital for digital has been non-existent a decade earlier”, namely prior to 2011 revolution. In the same vein, KOM reflected on the flourishing of that domain for digital businesses stating, “if this capital sector continues its expansion with similar proportion to its growth since 2017, this domain will become saturated within a few years”.

Indeed, data from the Global Entrepreneurship Monitor (GEM) supports this finding of the growth of the financial domain by placing Egypt above the median of the global finance indicator with 4.4% witnessing a steady increase from 3.5% in 2015. The first reason for the growth of the digital financial capital stems from the role played by the public sector to support the digital ecosystem; a finding consistent with Mason and Brown (2014) and Brown and Mawson’s (2019) contention on how policy interventions act as a central underpinning of successful ecosystems.

²⁸ Leading digital transformation owned by the public sector, <https://www.inventiva.co.in/trends/top-10-unicorns-in-egypt/>

²⁹ *Souq* means market in Arabic. The company used to be known as Souq.com <https://techcrunch.com/2017/07/03/amazon-souq-com-completed/>

The digital entrepreneurs credited the Information Technology Industry Development Agency³⁰ (ITIDA) with the growth of the digital ecosystem. SH mentioned “I do believe that ITIDA is performing a positive role in the ecosystem, and I was happy more than once to attend its exhibitions per invitation and I even travelled under the auspices of it before”. He further said, “I was even invited to travel and represent Egypt in international summits organised by the government, and they covered the travel expenses”.

In 2017, the Egyptian government launched its sustainable development strategy (SDS) for 2030³¹ under the vision of ‘Digital Egypt’. The vision mainly underpinned the relevance of digital innovation and transformation, teaching digital skills and creating 25,000 jobs in the technology sector alone (Egypt ICT strategy, 2021). Another legislative intervention was introduced when the Central Bank of Egypt (CBE) issued several decrees in support of SME multiplication such as providing 11.5 billion EGP as finance to fund small and medium enterprises, as well as, establishing a consistent definition for small and medium enterprises across the national banking sector for the first time since March 2017 which manifested in the formulation of 653 start-ups owned by Egypt Innovate (EI) online hub alone (Metawea, 2020; Mansour et al, 2018; Ali et al, 2021).

³⁰ The ministry of technology in Egypt has been called ITIDA and it supports digital businesses <https://itida.gov.eg/English/Pages/default.aspx>

³¹ Launched in 2016, the government has been embarking on Egypt Sustainable development plan (SDP), 2030 https://arabdevelopmentportal.com/sites/default/files/publication/sds_egypt_vision_2030.pdf

These regulatory reformations have been echoed by AD who reflected on how he “receives daily calls from bank officers such as that of Al-Ahly bank numbering the benefits of obtaining credit from their premises”. DA continued saying, “such phone calls from bank officials were not available a decade earlier”.

Another reason explaining the growth of the digital financial domain is attributed to business incubators and accelerators in Egypt. Indeed, digital entrepreneurs *unanimously* credited this sector for opening the door widely for the multiplication of business opportunities by digital entrepreneurs. However, only four of the digital entrepreneurs did not rely on incubator funding for their business growth whereas the predominant majority of the twenty-seven resorted to incubator funding to further grow their businesses. HS said, “Egyptian banks will never give 2M\$ for a start-up, something which a series of investments from incubators can fulfil”.

Likewise, AH reflected on the rigour of the ecosystem saying, “it has enablers and actors and is growing compared to five years earlier especially with the growing number of investors”.

Comparing banks to incubators as a source of funding for scale-ups, DA identified how stringent bank requirements impede his hiring capacity, whereas incubators offer leniency in credit-funding. DA revealed “banks have a requirement of allocating funds to only fixed costs rather than variable ones, so I cannot use the credit to cover the costs of my employee payrolls which are usually high in the digital sector with a baseline salary of 10,000 Egyptian pounds for a junior software engineer”.

Also, KOM, a venture capitalist himself said “we usually rely on risk capital at times when some of the business plans presented at investment series are not that promising, but we still choose to invest and support the ecosystem”. Therefore, it can be concluded that incubators and accelerators are primarily credited for leading the digital ecosystem in Egypt, thus supporting how Brown and Mason (2017) perceived them as the leading actors of an ecosystem. SBA reflected on their role in the Egyptian digital ecosystem by saying “no one can deny the prominent role of those organisations in *khalq hala* for the ecosystem or cultivating a positive environment of financially supporting digital businesses in general”.

The financial domain of the digital ecosystem is supported by a network of forty institutes and one thirty-five co-working spaces such as the publicly owned Technology Innovation and Entrepreneurship Centre (TIEC)³², Falak, as well as the privately funded Flat6Labs established by *Sawari* Ventures. Other entrepreneurship support organisations (ESO) that offer business and financial services are Endure, Endeavor, MINT incubator, Egylab alongside the leading university incubation of the American University in Cairo (AUC) V-Lab since 2014 (Mansour et al, 2018; Ali *et al*, 2021). SnA and KM reflected on how they secured finance at the rounds of such incubators. SnA said “I received 30,000\$ in return for 15% from Flat6labs back in 2017”. Also, KM declared “I received a total summation of 100,000\$” similar to DA who said, “I actually received a materialistic value of 120,000\$ over a year and half from a round of GESR³³ Investments”.

³² In 2010, in the Smart Village premise, TIEC is a public-owned incubator that supports innovation and digital businesses in Egypt (<https://tiec.gov.eg/English/Pages/default.aspx>) sponsored by the Ministry of Information Technology Industry Development Agency (ITIDA) (<https://itida.gov.eg/English/Pages/default.aspx>)

³³ Affiliated to Misr Al Khair foundation, GESR supports businesses operating in the knowledge economy such as IoT and AI, as well as, other industries <https://gesr.net/>

Moreover, a fourth entrepreneur YI remarked “I was offered around 350,000\$ cash alongside other intangible funds which accumulated to \$700,000 investment”. The digital entrepreneurs specified that those funds aided in recruiting talent, growing, and expanding their business operations further supporting the literature of Nicotra et al (2018) on the positive impact of incubators in purchasing equipment and recruiting talent. This is evidenced when SnA stated that he channelled those financial resources to hiring quality personnel in the health tech sector who rarely join SMEs. SnA mentioned “usually in my industry, quality professionals prefer to join Pfizer or other elitist organisations because they offer lucrative salaries, so I was able to attract talent with such funds”. Also, DA credited such funds for his business saying, “I was able to purchase and import pricy 3D equipment from China, I actually applied to almost all incubators known in the region”.

4.2.3) The characteristics of the emerging digital market domain:

Research findings revealed that the majority of 29 of the digital entrepreneurs are actively networking in their communities compared to only a minority of two who stated they are not active. This is because the digital entrepreneurs believed that networking is a lubricant for their own business growth. MS noted “networking is very important for business as it opens closed doors. I believe a network is like a key to a closed door”. Likewise, SBA quoted “I would not advise anyone to have his own business if he is not networking”. This finding is similar to MA who remarked how he is losing opportunities when he does not network. MA quoted “I actually have no time to network so I am aware that I am missing chances of promoting my own business and marketing it, so I am planning to socialise more soon”.

Not only MA but DG noted “actually I do not like to attend social events for personal reasons”. With those only exceptions, data reveals that digital entrepreneurs engaged in an active community which HS described as “dense and well-connected”. Networking occurred either through business retreats organised by Elre7la³⁴ and/or joining social media Facebook groups such as Lean Circle, MENA bytes and Rise-Up groups. A prominent networking activity that has been consistently shared by the digital entrepreneurs was through attending business retreats organised by Elre7la or the trip. DN, SBA and IA exemplified how Elre7la offered a beneficial networking opportunity as it aided the entrepreneurs in mentorship, increasing their client-base and creating business partnership opportunities.

SBA reflected on his experience saying, “I twice attended a fintech retreat attended by 200 entrepreneurs each and we used to cohabit 24/7 so such proximity brought me closer with every individual in the retreat and our ties was deepened when we used to have meals together”. Also, IA identified how speed-friending organized at elre7la helped him find business partners. This is evidenced when IA quoted “actually, I got introduced to one of my current suppliers at elre7la as I used to spend many meetings at various roundtables marketing for my brand, so one of those attendees was interested in my business idea and gave me his contact details to maintain future contact”.

Online Facebook groups such as Mena bytes, Lean Up Circle, as well as, Rise-Up acted as a second medium of social networking online. Online networks connect entrepreneurs with other members of the ecosystem such as suppliers, clients, personnel and/or co-founders.

³⁴A firm that organizes business retreats, elre7la, the letter 7 is pronounced as H, <https://www.elre7la.com/>

HA, the convener of Rise Up Summit and the online Facebook administrator, said “I actually prefer online communities rather than offline summits as the members of a group are multiplied, while at events attendees are only a maximum of 300 members”. The benefits of online connectivity have been expanded to save time, money, distance, access wider audiences and share knowledge for free. WH commented “I do prefer online communities as its difficult for me to drive hours to reach a spatial networking event as usually those events are organized at downtown Cairo and/or at Giza pyramids and both are far away from my office base”. Online Rise-Up Facebook group has 20,000 active members which HA credited for deepening the ecosystem interactions.

Indeed, the Egyptian culture that supports the free sharing of information to help others was offered as the reason for the active involvement in online networking events. HA said “...emanating from the Egyptian mentality that *el nas lebadaha* or people are created to help each other, we did create Rise-Up to offer support and advice for free to the members of the ecosystem”. He resumed “I do have lots of direct messages received daily to offer mentorship and advice and I offer that freely”. Similarly, digital entrepreneurs highlighted the role of free help. 2NN noted “I find it quick and easy to access knowledge for free that reaches a wider audience as it happens online. Whenever I want to ask about something, I instantly post on my account, and I receive lots of responses”. Also, the prominence of networking is deepened in the context of Egyptians' lack of access to public information. FAA exclaimed “...do you believe that there is no one even central database in Egypt that offers information about capitalists?” Therefore, networking is possibly a recommended medium to mediate such an absence of information.

Nevertheless, although networking successfully leads to the evolution of the digital market domain, the digital entrepreneurs identified a negative side of societal discrimination and bias characterising their interactions. Such discrimination is represented in terms of the English language spoken in the ecosystem being the official language of communication. FAA reflected on such a bias saying, “The winners of investment rounds at incubators are those who have English as their main language of communication and/or equipped with the privileges of international education at the expense of the average Arabic-speaking sector of the society even if the latter had better ideas than the former because investors regard people from governorates other than Cairo as peasants”.

FAA further reflects on his experience mentioning “I contacted start-up founders from humble educational and social backgrounds to only discover that they had lots of potential ideas, yet, they are considered second class citizens by investors”. Interestingly, in striking contrast to his counterpart, MBA justified the social discrimination rife in their industry by arguing that English is the main language of business universally while software education is an elitist industry. MBA noted “such elitism is acceptable and normal, actually it is the digital entrepreneurs who should be up to that benchmark”. This is similar to SnA, who is a graduate of Ain-Shams State University, who reflected on that matter saying, “I tend to reconcile with such an idea that English is the main language of the ecosystem as it means that one received a good education”.

Also, not only was discrimination in terms of social background, but both NA and SA identified how attire and personal possessions play a role in the entrepreneur's acceptance within the society. This is evidenced when NA quoted "I started to become more socially acceptable within the community after I changed my style into a frizzy shaggy hairstyle because now people associate it with creativity and innovation". Such concern for the outer appearance in the digital ecosystem has been highlighted by NA who said that he lost a business deal with one of his clients because of the location of the office in a decent area of Nasr city. NA said his A-list client told him "I really like your designs, but it is about the location and the office condition that is holding me back as I have never signed a contract with anyone having his office in a similar condition". Reflecting on how such bias led him to relocate to the affluent area of New Cairo, NA resumed "I actually sold my old office, invested in a car and now have my premises in the district of New Cairo to curate my outer appearance as this works in business".

4.2.4) The role of social capital in filling the voids of the digital EE:

4.2.4.1) Resistance to social capital in recruitment:

The majority of the digital entrepreneurs irrespective of their gender resisted social capital for recruitment compared to only a small minority of five who welcomed social capital for labour access. On the one hand, only five of the digital entrepreneurs did recruit from their network of family and friends. Understanding their friends' personalities was the sole reason to support recruiting from a network of family and friends. This is evidenced when IE stated, "I have my wife and my cousin on my board of business as I understand mentalities and their personalities".

4.2.4.2) A gender perspective in employing social capital for financial access:

Research findings offer a gendered perspective to understanding the role of social capital for financial access. This is because twenty-six of the digital entrepreneurs who categorically rejected social capital were males. On the one hand, the digital entrepreneurs who welcomed relying on social capital for financial access were three females. For example, 2NN quoted “yes, my parents did help me, and my uncle invested a stake in my business to help it grow at the very early stages of the business” in a similar manner to her counterpart DN who noted “my uncle gave me a lump sum of as much as 60,000 EGP which I used to pay as salaries to recruit personnel”.

Interestingly, two of the entrepreneurs were rather reluctant in resorting to it as a legitimate form of funding in the first place. Such reluctance to gain access to capital from a network of friends and family stemmed from the psychological burden of asking per se. This is evidenced when both DA and YI explained how resorting to social capital is unattractive because it undermines one’s dignity. DA reflected “I had to ask all my network for money actually, but I am not welcoming it because just the need to ask for money per se is in itself....humiliation”. Also, MS noted “at the very early stages, I had to take money with a summation of 5,000 Egyptian pounds from my father and I was not comfortable, so I returned them after 2 months only”.

On the other hand, the majority of the male digital entrepreneurs who resisted relying on their network for financial capital access attributed it to both reasons of the need for their autonomy and independence besides familial lack of emotional support which precluded financial support. The digital entrepreneurs stated that the resistance to social capital stemmed from familial absent emotional support that aborted any successful attempts to receive financial support. This reason might be understood in the context of the pre-2011 Egyptian cultural norms or what HS referred to as a generational gap. HS said, “usually entrepreneurship for older generations is not seen as an attractive career path, unlike our generation” similar to his counterpart HA who quoted “my parents would not support me nor understand the need to have my online psychotherapy and counselling business, so I did not ask for money as they will not understand”.

Not only was there a lack of support but FAA said his parents would scold him if he asked for money in the first place. FAA quoted “do you think I can go to my father and ask him for around a million to invest in online corporate recycling? He will just tell me to get out of here and scold me and tell me get out of here you!” Ironically, FAA’s company was nominated to represent Egypt as a promising start-up in Davos economic conference 2019 after his parents did not offer him any financial aid nor emotional support. Indeed, prior to 2011, there was a negative perception of self-employment in Egypt expounded with the negative depiction of businessmen in almost all films and TV serials in the 1990s whilst governmental positions were perceived to be of an alluring career path instead (Ragab et al, 2020).

Alternatively, the sense of individual empowerment and personal agency is dominating the culture of the revolutionary youth. Such empowerment played a significant role in encouraging entrepreneurship as a career path in a country that had once been heavily rooted in socialist values. WHS reflected on such an impact saying “our generation is different from that of our parents and grandparents. We are empowered and can decide to do anything especially after the revolution, lots are shifting career paths and choosing not to join a corporate or a public service job anymore”.

4.2.4.3) Self-reliance:

In order to mediate the challenges of the digital human void, the digital entrepreneurs unanimously relied on their efforts. This is as the digital entrepreneurs stated that they performed the belated workload of their workforce themselves. RM said, “I have to work more than 12 hours to do their work by myself”. This finding of self-reliance is similar to MA who said that he performs the tasks of the middle management category to fill the scarcity of talent in their market themselves. MA mentioned “I am performing the dual duties of the Chief financial officer (CEO) and that of the middle management category on my own to compensate for the absence of competent managerial and innovation skills in the market”. Also, to mediate the scant talent that characterises their digital ecosystem, the digital entrepreneurs relied on self-education then mentorship. For example, SnA stated “I actually use YouTube to learn financial planning from a medical background myself when business wasn’t taught in any of the years of the study”.

Similarly, MS said “everything now can be learnt through YouTube, with YouTube nowadays, anyone can learn anything for free”. This finding is similar to NA who remarked “to know the recent updates in the field, I do have an active subscription in all online educational platforms you are aware of Udemy, Edx and Linda so I learn business management and the updates in technology from those platforms then I teach my employees, myself, what I had learnt”. In a similar manner of mentorship, MBA quoted “I am the one who does teach my labour the updates in the field”.

Not only is online self-education an approach to combat business illiteracy but enrollment in international schools has been another predominant pursuit for business literacy of digital entrepreneurs. For example, HSA stated “I enrolled in Y-combinators to learn the ropes of business education and I benefited from sales and forecasting courses in specific which helped my business. This balances how I am not a business graduate myself”.

4.2.5) Impact of the voids on the digital ecosystem:

4.2.5.1) Balance of work/life spheres of digital entrepreneurs:

Work/life balance (WLB) is the ability to adjust to the multiple roles played in life (Marks & MacDermid, 1996). Research findings revealed that the entrepreneurs unanimously identified their work/live imbalance as an impact of the voids of their ecosystems. This is because the digital entrepreneurs worked more than the usual 9-5 workdays with some finishing their workload at 10 pm and others starting from as early as 6 am while all stated that they do not have consistent days off.

For example, MA commented “I had to perform the work of my employees myself to ensure that my clients’ projects are delivered on time”. Also, FAA noted “before having my own business, I used to finish my work at 5 pm as a corporate employee while now my working hours stretch to 10 pm daily”. As well, SnA reflected on how those elongated working hours impacted his sleeping hours by saying “I always stay up late till 4 am and I have to wake up in the morning around 11 to continue the cycle of work”.

Likewise, NA noted “I always wake up daily at 6 am to work and ensure that I am not losing any business opportunities while asleep”. Also, such work/life imbalance was represented in having no consistent days off. For example, the FAA said, “I only take Fridays off, not a weekend, so this is the only day when I switch off my mobile phone”. However, only two of the digital entrepreneurs considered self-reliance and the elongated work hours as a burden compared to the predominant majority who perceived it as a learning opportunity.

4.2.5.2) Resiliency of digital entrepreneurs:

Surprisingly and unlike research suggestions that workplace challenges impacted innovation and productivity as declared by Stephan (2018) and Stephan et al (2022), a common finding amongst digital entrepreneurs was that their industry challenges fuelled their resiliency to accelerate their progress. A facet of psychological capital is entrepreneurial resiliency manifested from entrepreneurial cognition that contributes to the successful handling of business setbacks (Renko et al, 2020).

Positive cognition is evidenced when HS said, “I do not dwell on the challenges of the ecosystem per se as it leads nowhere”, whereas MO said “I do read many self-help books that tend to make me master my mind, so I learnt to shape my mentality and tame my thoughts to survive in the industry”. In the same vein of self-regulation, KHS noted “I am mentally programmed to focus on solutions instead of problems” like SnA who stated, “I do believe that there is not ever problem that does not have a solution”.

Perhaps such resiliency is understood in the context of the passion digital entrepreneurs exhibit towards their business ventures and entrepreneurship as a career path.

WSH named his business to be his “partner” further describing how terminating his prior business was metaphorically similar to a breakup saying “it is a very draining process and it resembles a break-up from an ex as it involved emotional investment”.

Such passion is evidenced when DA quoted “I always had a passion for engineering and seeing how parts connect together, perhaps that is why I specialise in 3D printing”. Also, RM mentioned “I used to disengage from my studies at the faculty of agriculture to invest heavily in learning technology which consumed my life in the 2000s”. Their counterpart ZF mentioned “I have a passion for programming, and I love how I use technology to create solutions”. Not only a passion for technology but the digital entrepreneurs exhibited passion for entrepreneurship as well. This is evidenced when MA noted “I always wanted to be my boss and have my own business regardless of the field I am operating in”.

His counterpart FZ noted “I do not like being an office employee, I appreciate the freedom that my business offers me”. Table 4.1 summarises the research findings for EE by illustrating the constituents of each void, how the digital entrepreneurs employed social capital to fill their respective voids and how this impacted the functionality of the EE. Table 4.2, 4.3 and 4.4 display the findings of the digital EE including the characterisation of the digital ecosystem, the coping approaches undertaken by the digital entrepreneurs, as well as its impact on the digital ecosystem respectively.

Table 4.1: The characterisation of the digital entrepreneurial ecosystems, the coping approaches taken by the digital entrepreneurs to mediate the void and its impact on the ecosystem

Digital Entrepreneurial Ecosystems		
Digital human capital void	Characterisation of void	Representative Quote
Scarcity of digital talent	Limited critical & innovation skills, lack of workforce personal investment in career	"Valuable human assets are scant especially in the area of the back-end software development which requires innovation and systems thinking" by NA
Divide in quality between state and private educational institutions	Privately educated digital graduates are multilingual and master presentation and communication skills that further reflect positively on a firm image at international summits and exhibitions.	"Although I do not support education to be a privilege for the rich but I have around 70% of my workforce being American University in Cairo (AUC) graduates as they are equipped with better skills than state-graduates" by HA
Lack of commitment to deadlines	With procrastination, the digital workforce did not submit their projects on due dates	"My workforce engages in workplace behavioural deviance because they prefer to smoke, chat and drink coffee which elongates their afternoon break session entitlement" by FAA
Digital Financial Domain	Characterisation of domain	Representative Quote
Growing sector of incubators and accelerators	A wide variety of TIEC, Falak, flat6labs, Wamda, and AUC venture labs that offer funding at lenient terms compared to banks.	"If this capital sector continues its expansion with a similar proportion to its growth since 2017, this domain will become saturated within a few years by KOM.
Supportive governmental intervention	'Digital Egypt' has been launched in 2017 to support this sector in particular. Also, the Ministry of Strategic Planning partnered with AUC to create the first hackathon 2030 and teach digital skills across Egypt	"I do believe that ITIDA is performing a positive role in the ecosystem. I was invited to travel and represent Egypt in international summits organised by the government and they covered the travel expenses" by HS

Digital market domain	Characterisation of market domain	Representative quote
Networking	Business camps such as <i>Elre7/a</i> and many online groups acted as virtual communities of practice whereby digital entrepreneurs are connected with capitalists, suppliers, and other entrepreneurs.	"I twice attended a fintech retreat attended by 200 entrepreneurs each and we used to cohabit 24/7 so such proximity brought me closer with every individual in the retreat and our ties were deepened when we used to have meals together" by SBA.

Source: Author

Table 4.2: The coping approaches taken by digital entrepreneurs to mediate the void and its impact on the ecosystem

Coping approaches to fill the human capital void of the digital ecosystem	Characterisation of coping approach	Representative Quote
Resistance to social capital in recruitment	The sample resisted social capital for recruitment due to <i>assham</i> . The reason for high expectations as a result of conflation between personal and professional spheres was given as a reason.	"One of my employees, because he was the friend of the boss, used to arrive at 9 am and leave at 1 pm yet still expect to be paid as those who work from 9 am to 5 pm just for being my own friend" by NA.
Gender-perspective on social capital for funding	The females of the sample interviewed relied on social capital for funding whereas their male counterparts resisted social capital for financial access. Reasons such as autonomy, independence and lack of emotional support were given as justifications to resist social capital, whereas the female entrepreneurs felt a sense of agency and emotional support which encouraged their financial access.	"My uncle invested a stake in my business to help it grow" in a similar manner to her counterpart ND who noted "my uncle gave me a lump sum of as much as 60,000 EGP which I used to pay as salaries to recruit personnel" by 2NN "I wouldn't like to involve my family in matters of business because I prefer to do it on my own" HA.
Self-reliance	The digital entrepreneurs unanimously relied on their efforts to mediate the human capital void. This was through mechanisms of performing their belated tasks themselves, and/or, self-education followed by mentorship.	"I am performing the dual duties of the CEO and that of the middle management category on my own to compensate for the absent competent managerial and innovation skills in the market that are essential for this hierarchical category" by NA.

Source: Author

Table 4.3: The impact of the impact of the void on the digital entrepreneurial ecosystems

Impact of the human capital void on the digital EE void	Characterisation of impact	Representative Quote
Work/life balance	The fact that they relied on their efforts to mediate their human capital void, led to working beyond 12 hours a day.	“Before having my own business, I used to finish my work at 5 pm as a corporate employee while now my working hours stretch to 10 pm daily” to FAA.
Fuel entrepreneurial resiliency	Led by passion for their businesses, technology and entrepreneurship, the digital entrepreneurs were resilient in growing their businesses. This resilience is shaped by positive cognition and positive emotions.	“I do read many self-help books that tend to make me master my mind, so I learnt to shape my mentality and tame my thoughts to survive in the industry” by MO.
Source: Author		

4.3) Fashion Entrepreneurial Ecosystem (EE):

4.3.1) The characteristics of the fashion human capital void:

4.3.1.1) *Sanayee* or craftsmen manipulation and sexual bias:

Reports by the World Bank (WB) reveal that women entrepreneurs in Egypt are amongst the lowest in the region compared to neighbouring countries such as Tunisia with a percentage of 16.1 % to as high as 49.5% respectively. The low participation of women entrepreneurs in Egypt can be understood in the context of the socio-cultural mindset that a woman's prime role lies within her family sphere performing child-rearing activities at the expense of her participation in the economic sphere (Hattab, 2012; Hassan & Zaharia, 2021). Another reason that perhaps underpins such cultural norms is that Egypt witnessed a stall of its feminist waves that encouraged women's liberation since the 1960s although ironically it pioneered in leading the MENA scene in 1919 (Sidani & Jamali, 2010).

Bias against women explains what BM referred to as *Ishtar* or not being taken seriously when she places her business orders. Both BM and BN, who are in their early 20s, explained that discrimination for being both young and women underpins the bias in their ecosystem. BN quotes "I do have a problem with their attitude, perhaps the *sanayee* seriousness-doubt of my capabilities are either due to being a female or being of a young age". This finding is similar to what WHS, WX and BM referred to as *dehk aleeha* or abuse of their ignorance of the market dynamics and pricing. For example, BM stated, "a craftsman would set higher than the commonly known price of a product to test the waters of my financial capability".

Also, WHS noted “I had to learn the market language and the craftsmen jargon to protect myself from being abused for my ignorance or *dehk aleeha*”. Similarly, WX commented saying “you know there are no consistent prices in the industry and each wholesaler has his price for the material, so I know that they will abuse my ignorance of the market prices, therefore, I have to go by myself to *alwekala* to ask about the jeans prices and become more market aware”.

Another facet of gender bias is represented in the craftsmen's manipulative behaviour of gaslighting. Derived from David Cukor (1944) film ‘Gaslight’, gaslighting is a form of mind manipulation whereby the perpetrator tends to doubt the sanity of his/her victim (Sweet, 2019). Both WS and BN had an identical experience of purchasing items that both discovered to be with clear defects yet the craftsmen gaslighted the entrepreneurs and denied any responsibility. BN stated, “I once bought a piece with clear defects in its parts but upon confronting the craftsmen about my issues of concern especially with the absence of written contracts or receipts as proof of purchase, they would then doubt that I had originally purchased this item from their premises”.

Interestingly, in an almost identical predicament to that gaslighting behaviour, BM noted “the craftsman would argue that the 100 pieces of jewellery purchased are perfectly coated and have no stains at all, but I see with my own eyes that it is defective, so they are lying to me” further referring to the incident as “*deck aleeha*” or manipulation. Indeed, such gaslighting is compounded when there are absent contractual agreements that guide the transactions between craftsmen and entrepreneurs.

GD reflected saying “, there are no contracts in this sector, so whenever there is a *defaux* in the materials, you cannot return the product or ask for your rights. Actually, that is how their system operates”. WX said, “There is only a receipt that documents the business transaction, but it is of no value as still the craftsman will argue he has not sold such items in the first place”. Indeed, those incidents led fashion entrepreneurs to regularly check item by item to ensure that all pieces have no defects before making any purchase.

4.3.1.2) Sanayee lack of adherence to quality standards:

Not only do sanayee or craftsmen exhibit manipulative behaviour, but research findings reveal that the sanayee lack of adherence to quality standards acted as a second challenge to their ecosystem. Such lack of adherence to quality standards is evidenced when RJ sarcastically exclaims “I do not think this is the handcraft of a normal human being. This jewellery seems to have been assembled by that of a *mowawaq* or disabled as the edges are crooked” resuming “if I ask for 1000 pieces, there has to be only 200 good ones, while 20 are so bad and 50 are not perfect”.

BN referred to such a challenge by saying “I am expecting a silver coating of 100% quality with absent *lamsa* or human handprint which is not the case at hand. I sometimes feel embarrassed to sell those items to customers”. Also, BM said, “If I ask for a 9-inch diameter of a raw material cut, some products are delivered rather with a 7-inch cut”. The lack of updated machinery, as well as the socio-economic profile of the Egyptian craftsmen were both offered as reasons for such a challenge.

WX mentioned, “I think their poor technical skills in cutting stems from the lack of machinery they have, actually they do everything with their own hands which leads to inconsistent cutting”. Moreover, IY explained that the craftsmen's *estesehal* or sloppy performance stemmed out of an absent *amana* or lack of consciousness. YI said, “I do believe that they just do not care about the product, and they have no *amana* in the work they are doing”. WHS exemplified such a challenge by saying “the Egyptian craftsmen are usually uneducated people who subsist on a hand-to-mouth lifestyle as they prefer to spend all their business profits on smoking weed rather than invest in their *warsha* growth.

4.3.1.3) Sanayee Lack of commitment to deadlines:

As was the challenge for the digital workforce, four of the fashion entrepreneurs identified their human capital void to be in terms of lack of sanayee or craftsmen commitment to deadlines. However, the remaining six of the sample did not consider this behaviour as a challenge because they had their in-house workshops, so they performed the craftsmen's work themselves. BM mentioned “the sanayee do not keep up to their words as they might agree on the delivery day to be a Saturday but later, I find out that they haven’t even initiated the task required on the delivery day promised”. This is similar to BN who quoted “there are unusual delays in the delivery of my products, and it can take even weeks to 1 or 2 days”. Their counterpart JR said, “in the cases where they submit on time, they tend to make my life easier actually”.

4.3.1.4) Lack of placement agencies:

For the digital sector, there exists only Wuzuff that DA and SnA of the digital entrepreneurs relied on to scout qualified talent. This is evidenced when DA said that “whenever there is any vacancy that arises, I publish a need to search for a job vacancy through all mediums available online including Wuzzuf”. Conversely, for the fashion sector there are absent placement agencies that fashion entrepreneurs can rely on for hiring models and/or scouting Instagram influencers. Absent placement agencies are a facet of the weak institutional environments in emerging markets (Ebrashi & Darrag, 2017). Although investigating the reason behind the lack of placement agencies in Egypt goes beyond the scope of this thesis, perhaps the nascence of the fashion industry in Egypt that rose to prominence after the 2011 era could be a reason that underpins the absence of modelling agencies.

Also, as Chapter One indicated, arts and design were not celebrated industries before the 2011 revolution as an effect of the Egyptian socialist values that favoured jobs in engineering and medicine. The impact of such lack of placement agencies is that fashion entrepreneurs are unaware of the modelling industry in Egypt nor their price tags’ immanent for their photo shoots and/or showcasing their designs to the public. For example, BM stated “there is no even one platform that gathers all those who work as influencers I am aware of”, while ES reflected on such a challenge saying, “I had to resort to the option of personally contacting acclaimed influencers such as Noha Sherbiny and Aya Shehabby as there is no other medium than that”.

4.3.2) The characteristics of the fashion financial capital void:

4.3.2.1) Lack of governance to support the fashion ecosystem:

In their research on the creative industry in Canada, Brydges and Pugh (2021, p.14&15) exemplified how the Canadian federal government launched the 'Creative Canada policy framework' to support fashion businesses. This framework included partnering with the Toronto Fashion Incubator to grant finance from \$2,500 to \$5,000 besides training. Conversely, findings reveal that governments in Egypt fail to recognise and support fashion businesses. WHS quoted "the fashion sector lacks systematic efforts to address its challenges and there are no policy interventions to positively support it". For example, still the genre of fashion business is non-eligible for bank credit and is not recognised in the Egyptian banking system, whereas the Small and Medium Enterprise Development Agency (MSMEDA)³⁵ is the only institution in Egypt that offers funding for this genre of businesses, yet, with as low as 25,000 Egyptian pounds.

WHS identified that such an absence of public investment hampered the expansion of her business in Dubai outlets. WHS remarked "I cannot directly apply for a bank credit as my business is artwork, so it is not eligible for bank credit, actually MSMEDA is the only institution in Egypt that supports micro businesses but any profits are wiped off by the heavy burden of taxation on my business".

³⁵ Small and Medium enterprise development agencies (MSMEDA) is the only public-owned institution that offers funding and business support to creative and arts industries only <http://www.msmeda.org.eg/> جهاز تنمية المشروعات المتوسطة والصغيرة ومتناهية الصغر

WHS further notes “whenever I go to any bank or registrar, they think I have a big business that is making profit so I should be taxed on it”. Indeed, banking credits are a source for businesses in the creative ecosystem whereby limited access to credit can hinder the scale-ups of fashion businesses (Borin et al, 2018; Konrad, 2015). However, such absent policy intervention to financially support the fashion ecosystem is mismatched with the rise in demand for fashion designers. This is evidenced when XW said “the number of students enrolling in fashion courses has doubled post 2011 era compared to before. It used to be only 10, now we are 50 in the classroom”, however, absent strategic reformations in their ecosystem contribute to the underdevelopment of the fashion ecosystem. Another impact of such absent reformations is that fashion entrepreneurs are discouraged from registering their artwork. This finding is in stark contrast to the public policy vision of ‘Digitising Egypt’ that promoted a healthy digital ecosystem through multiple structural reformations.

4.3.2.2) Lack of awareness of the role of incubators in business:

Data findings revealed that seven of the fashion entrepreneurs exhibited a lack of awareness of the role of incubators in their business compared to only three that were aware of them. MB said “I have never heard before that someone can intervene out of the blue to help my business grow” whereas her counterpart XW exclaimed “Excuse me, what do you mean by incubators? Do such business incubators work in the same way as the famous TV show Project Runway does?”. A possible explanation for such a lack of business awareness stems from the lack of business literacy among the Egyptian masses. This is because business skills of entrepreneurship and finance education are absent from all state schools.

Similarly, at the university level the Egyptian educational system lacks any cross-fertilisation between educational degrees (Bond et al, n.d), thus, fashion entrepreneurs specialising in arts are not taught business and management skills (Abou Warda, 2015; Henry, 2015; Loveluck, 2012). However, the only three who were aware of incubators and their role in business attributed their business literacy to an openness to experience and an eagerness to learn beyond the liminal boundaries of their school and collegiate curricula. GF said “I knew from my brother that there is an organisation called *maan* that gives independent business courses and only from this source, I was able to know that there is a venture capital industry that can support businesses financially. I was always open to learning and developing my horizons beyond the educational content and knowing about the fashion world beyond the educational curricula that are offered by my school or even university. I have never been that girl whose world only revolves around her school and university education as such”.

Also, IY supported how the expansion of her horizons helped her in mastering business skills by saying “I used to attend YAT Academy and enrolled in many of its courses back in the 2000s when it was famous, and I learnt a lot from this academy”. Interestingly, as an impact of such business literacy, the incubators of *Nokoosh*, *Injaz* and *Itijah* were mentioned for offering funding to fashion entrepreneurs. JD stated, “although those incubators offer as low as 30,000 to 50,000 Egyptian pounds yet *Nokoosh*, *Injaz* and *Itijah* do support innovative and creative artwork but there are very few similar ones in the market that fund artwork”. Indeed, this finding suggests that there is a sector of incubators that support the scale-up of fashion businesses in Egypt, but it is the fashion entrepreneurs’ lack of awareness of their ecosystem dynamics that is detrimental to the underdevelopment of the fashion financial void.

4.3.2.3) Resistance to external credit:

The fashion entrepreneurs showed strong resistance to relying on investors and/or incubators for accessing financial support unanimously. They associated their resistance to preferring the peacefulness of mind to the hassle of commercialising a business. WX said, “if I relied on external sources of investment, I would have to work on weekends to repay debts which I would not like doing”. This is strikingly similar to WHS who said “I prefer my business to be free from such financial obligations. Actually, working under such obligations will be similar to a *korbag* or a whip that mercilessly obligates me to pay on time”. Their third counterpart JR voiced her preference for her venture to be stress-free from business commitments as well. JR noted “I wouldn’t like to involve my business in such stress which could eventually lead to my *wagaah demag* or emotional burden, actually my venture is based on creativity and any attempts to convert it to be a business opportunity would kill its creativity tendencies especially if I had to abide by the stringent rules and requirements set forth by incubators”.

This finding tends to suggest that the resistance to external credit stems from the fashion entrepreneurs themselves. This is because they are considering their ventures as artwork rather than a commercial business. It corroborates the research of Borin et al (2018, p.49 & 57) that external credit faces low demand from fashion entrepreneurs themselves for reasons of the identification of their ventures as “an act of creativity rather than profitability” which interestingly WHS referred to “as actually not that much of a business but more artwork of creativity”.

SHW said "I am piece focused and I can do 10 pieces seasonally or when I like, and I do not work based on mass production as in the case of business but I do my pieces myself. This was evident in my collection inspired by the tableau of the artist Mahmood Saieed banat bahary or women of northern Egypt".

4.3.3) The characteristics of the fashion market void:

4.3.3.1) Resistance to social networking:

Data findings revealed that the fashion entrepreneurs unanimously resisted engaging in social networking activities which contributed to their market void. HSH quoted "I don't think our industry has any networks that I am aware of and even when you ask other entrepreneurs, they will say the same, actually we prefer to operate in secrecy". However, networks that existed in their ecosystem operated as advertising hubs for showcasing their designs rather than offering support or knowledge about market dynamics.

The fashion entrepreneurs stated that they are active members of social media platforms such as 'She Can!' and 'I Make This!'. The online group 'I make this!' alone garners more than 50,000 followers on its various social media platforms. Also, fashion entrepreneurs have to pay a fee of a minimum of 500 pounds to market their designs. BM quoted "they used to be of free membership and posting, yet, only in the summer of 2021 they started to charge members for 500 pounds and that's pricey for me".

Moreover, such online groups do convene open days to sell subscribers' artwork. SHW said "I am a regular attendee of I Make This! whereby the owner Rania organises regular exhibitions at certain locations across Egypt and I book a booth at her promises to sell my recent artwork". She reflects on the business model of such exhibitions by saying "there are lots of sellers at such exhibitions that run all day long, I usually rent a booth and customers purchase many items from many sellers then they pay at a cashier at the final checkpoint". Indeed, those findings suggest that networking events in the fashion ecosystem connect entrepreneurs with customers not with angel investors suppliers or craftsmen.

Whilst seeking to understand why social networks do not connect parties of an ecosystem, two reasons have been offered such as the competition rife in that industry and the threat of copying design ideas when knowledge is openly shared. BM exemplified how there is a lack of cooperation in the fashion ecosystem by saying "no one helps, even if you ask online for a trustworthy *warsha* or workshop, respondents will tell you vaguely go to Al-Hussein.³⁶ area and you will find lots without specifying which *warsha* she could go to, so I do not think they offer any help". ZS reflected on how competition precludes knowledge-sharing by quoting "there are no social groups in this industry because each one is afraid to share his/her ideas on his brand-success let alone the know-how of a brand initiation". BM, her counterpart, coincided with such a reason by declaring "designer-information is classified as business-secrets, so they are not widely shared". The fashion entrepreneurs acknowledged that copying designs dissuaded them from revealing information about their businesses, especially since the culture of protection of property rights is absent in Egypt.

³⁶ A geographical concentration of jewellery-makers in Egypt

In her paper, Jones (2020, p. 463) applauded the post-2011 attempts to constitutionalize intellectual property rights in Egypt, referring to it as “a remarkable provision” to balance property rights between owners and consumers. Nevertheless, research findings reveal that it is the culture of the craftsmen industry that does not believe in the ownership of a design irrespective of any recent regulatory reformations. WHS quoted “it is common for a craftsman to copycat the designs I gave him to another nearby craftsman offering to produce my design at a discounted price than what I had originally asked for?!” As a result of such property rights infringement, WHS said “in some cases, I used to be sent private images on Facebook that are stolen from my designs and artwork, so I decided not to share any design or idea again and I even removed some of my designs on social media to avoid having my ideas stolen”.

Likewise, GD noted “I was once talking with another designer on some ideas I am planning to do then later I discovered she had her collection with the exact ideas I have told her”. GD reflected on such a common infringement of ideas by saying “I believe this is like KG2 behaviour as she cheated on my designs and the thing is if I ever told her I helped her in the ideas, she will deny me helping her and assume that those are the brainchildren of her mind which is untrue”.

4.3.3.2) Fragmented distribution channels:

A second characterisation of the fashion market void pertained to its fragmented distribution channels that impacted the delivery of the product to the end consumer. Having a well-coordinated supply of value chain activities promotes a healthy ecosystem growth and sustainability (Isenberg, 2010; Mack & Mayer, 2016). The fashion entrepreneurs characterised such a poor supply of outbound activities in terms of poor courier services. The Egyptian courier market is dominated by either a small number of couriers and/or giants such as DHL, FedEx, and Aramex whose requirements are not convenient for a small business. This challenge to their business scale-up is evidenced when MB quoted “giant couriers set high prices for a shipment to be as much as 100 pounds or 150 per item which could wipe my small business off any profits”.

Therefore, fashion entrepreneurs are left with no other option other than resorting to small couriers which were found to be a major challenge in their ecosystem. The fashion entrepreneurs exemplified such underperformance to be in terms of mishandling of customer complaints, as well as the erratic and unethical behaviour of the delivery men. For example, BM reflected on how her complaint was unsystematically handled by customer service by saying “my complaint is usually relayed from one officer to another in a ping-pong manner without keen attempts to solve any, I called them many times and each time I meet a different customer agent and I must report my problem from scratch. I felt they are *yehadeef lead* or relaying a problem to each other rather than solving my problem or giving me a number to handle my complaint systematically and professionally”.

As well, the delivery personnel operating at the couriers' premises have exhibited erratic behaviour which extended to manipulation in some cases. This is evidenced when BN said that she once lost her financial entitlement as she was told by the company that the delivery man had an accident. BN quoted "I once lost 2,000 Egyptian pounds because I was told that the delivery man had an accident on his way to the client". Also, YI quoted "I met many cases whereby I had my money stolen by the courier as the courier men took the money from the customer and ran away". Indeed, the growth of logistics services could promote regional GDP as an independent growing sector, however, Egypt lagged behind the average EU scores with as low as 2.82 in 2018 on the Logistic Performance Index (LPI) indicator (El-Nakib, 2011).

4.3.4) The role of social capital in filling the voids of the fashion EE:

4.3.4.1) Reliance on social capital for recruitment:

Data findings revealed that the fashion entrepreneurs unanimously relied on their circle of family and friends to perform modelling and photo-shooting sessions for their artwork. SHH wondered "why not otherwise? is there any problem in doing so?" and IY recalled it as "an opportunity"; both believed in the importance of social capital for recruitment. SHH noted "yes, I do rely on my friends to perform modelling photoshoots and I wonder if there is anything wrong with that"? In their paper, Stuart and Sorenson (2005, p.233) identified how social capital in business leads to production efficiency; a finding that has been highlighted by the fashion entrepreneurs because hiring from family and friends helps in improving business efficiency and offering complementary technical skills.

Such skill complementarity has been suggested by WX who quoted “In my business, I have my cousin Monica who helps me in my business design for free as she is skillful in certain technical areas, so we work together”. The other benefit of production efficiency has been supported by SHH whose friends helped her save money. SHH said “when my friends do modelling work for free for me, I save a total of 5,000 Egyptian pounds which is the usual salary for a modelling photoshoot if I hire a model that is not from my family”. Not only efficiency, but SHW argued that working with family and friends leads to having fun and joy; another finding which the literature of Sarfaraz et al (2018) alluded to improving the psychological capital of an entrepreneur. This is evidenced when WHS quoted “I tell my daughter and her friends to directly put on those pieces of jewellery I created, and I instantly take the photo and the whole action is a lot of fun and joy”.

4.3.4.2) Reliance on social capital for financial access:

The fashion entrepreneurs unanimously relied on social capital to mediate their financial capital void. IY said “I relied on taking loans from my family safe in the knowledge that I shall repay them in flexible time intervals as business independence comes at a later stage of a business venture”; a reasoning which Elert et al (2019) referred to as soft loans leading to profit retention. Also, the entrepreneurs who had their in-house workshops said that they had business partnerships with their supportive husbands. JR noted “yes, my husband is actually working with me, and he is a very supportive partner financially, as we both invested in the capital of the business”.

4.3.4.3) Self-reliance:

The fashion entrepreneurs *unanimously* stated that they do rely on their efforts to fulfil the voids of their ecosystem. Such self-reliance manifested in four ways micromanaging their craftsmen and tailors' work, adopting masculine behaviour, having in-house workshops, and engaging in trial and error to mediate the human capital and market voids respectively. For example, to mediate the lack of craftsmen's commitment to deadlines, fashion entrepreneurs constantly followed up on the progress of their *sanayee* either through phone calls or through WhatsApp messages and voicemails to cope with their lack of commitment to deadlines. BN said, "I usually have lots of voice notes asking regularly about the progress of my work and I have to constantly call them to check they are working on my order before attempting to take the long drive to the workshop in Downtown Cairo especially when there is no Wi-Fi in their area, so calling is the only option".

This coping approach is similar to SHH who quoted "I have to spend the whole day at the workshop to check that the craftsman is performing my delivery on the day I wanted him to. I even must supervise their own quality and assurance personnel to check the adherence to quality standards is maintained". On the other hand, four of those who did not spend lots of time and energy overseeing the *sanayee* performance decided to have their in-house workshops thus performing the duties of the craftsmen themselves. This was understood when DG successfully inaugurated her academy known as 'Sumari' offering educational courses in tailoring and costume design to educate Egyptian craftsmen. GD noted "In Sumari we organise 6 rounds per year that teach fashion making and design and we graduate around 25 designers per year, and I recruit from my own Sumari academy graduates as I

trust that they absorbed what I had been teaching at my academy”. Likewise, ZS who has her in-house workshop quoted “I do have my high standards of producing my artwork, so I only have my workshop and I do the work myself as a one-man show”.

ZS further alluded to how her in-house workshop salvaged her from the craftsmen industry. ZS said “at my workshop, I have the upper hand in her business rather than surrendering being at their mercy”. This finding suggests that there is a lack of trust between the fashion entrepreneurs and the craftsmen sector in Egypt. ES noted, “I give money to the *sanayee* knowingly that I will not have any returns on my investments”. Another poignant example supporting the lack of trust is evidenced when WHS stated “I have been in contact with one of the craftsmen for two years, but at the financially tough times of Covid-19, he took my financial entitlement of 5,000 pounds and evacuated”. Indeed, when asked whether she is willing to invest in a relationship with the craftsmen or couriers to fill the ecosystem voids, BN said: “even if I spent years building strong relationships with them, it only takes three to six months for their true colours to appear, so I do not believe that trust exists and all interactions start flowery at the beginning so I believe it is only a matter of trial and error to land a good courier and good craftsmen”.

A prominent approach to mediating the manipulation and bias of the craftsmen in the fashion ecosystem was through exhibiting masculine behaviour of assertiveness which extended to vulgarity in some cases. For example, BM said “I had to hide my soft feminine side and wear basic jeans and a tunic always having a friend accompanying me as a sign of support”.

This is similar to BN who said, “I have to be firm in my tone and assertive in my behaviour, not soft when asking for tasks to be performed on time”. She further said, “it does not depend on my strong relationships with them, but I get my work done through my assertive attitude”. Not only the assertion but RJ showed vulgar behaviour when wondering why they are even making her angry. JR said, “when I find that my work is either delayed or not performed to the standards, I raise my voice loud so all the workshops in the area listen to me and say *Ahha!*³⁷ so that they know I do object to the quality of the products”. JR further said that this behaviour is the only way for a woman to deal with the male-dominated craftsmen sector in Egypt quoting “I have to hide any sign of femininity, but rather shout and give orders that I have to go home now as it is late, so they focus on what I am telling them to do”. This finding of exhibiting masculine behaviour coincides with research on gender and entrepreneurship associating the profile of successful management with the traits of masculinity such as goal accomplishment, locus of control, assertiveness, and aggression (Yatim, 2008; Watson & Newby, 2006).

Also, research by Li et al (2020) contended that masculine traits of determination and self-regulation influenced the early stages of a business success compared to the empathetic and friendly nature of females. This is because the feminine nature of entrepreneurs was convenient for the early incubation and searching phases of entrepreneurship, while the stages of marshalling resources and execution require masculine traits.

³⁷ aha اها is pronounced as ahha referring to I object to this loudly. The word is slang, vulgar and has sexual innuendo is not used by classy women of decorum in public and mostly used by men in Egypt

The final manifestation of self-reliance was through engaging in multiple attempts of trial and error to mediate the market void of their ecosystem. As an impact of the underperforming courier service in Egypt and the lack of networking groups that circulate information about trustworthy couriers, the fashion entrepreneurs stated that they have no other option except to engage in a lengthy process of trial and error before landing a supplier. BN quoted “I have to go through multiple frequent interactions with as many small couriers as possible until I settle on a delivery man who is *ameen* or is trustworthy”. WX quoted “actually after multiple failed attempts with many courier men, I finally landed on a certain delivery man Amm Sammy due to the constant smile he wears on his face”. In a similar vein, BN quoted “I deal with many craftsmen at the same time and many couriers as well as I learnt never to put all my eggs in one basket”.

Reflecting on the same mindset of ‘not putting all eggs in one basket’ mainly because craftsmen breached their code of trust, WHS noted “Trust will never play any role in building a relationship with them as they are not trustworthy, I should never put all my eggs in one basket”. On the other hand, SHH was the only entrepreneur who believed in how building a relationship of trust can play a role in mediating the market and human voids.

SHH said “I believe trust is a factor in speeding my work conclusion compared to other customers. Also, whenever there is a humanistic relationship, the craftsmen and/or the wholesaler can show me the best supplies he has and give me preferential treatment”. SHH further elaborated on her approach by saying “actually I have to build relationships through hazard or sharing jokes with them, having meals together and chatting while drinking tea”.

HSH believed that she can mediate the challenges of the fashion ecosystem by building strong relationships and trust. On the importance of trust, HSH noted “actually such relationships will mediate absence of contracts and receipts in the industry, and I believe that is the only way that you should have good relationships with them”.

4.3.5) Impact of the voids on the fashion ecosystem:

4.3.5.1) Work/life balance of fashion entrepreneurs:

The total of six of the fashion entrepreneurs who did not have their in-house workshops identified how coping with the human capital void impacts their work/life balance. This is because they spent long hours micromanaging the craftsmen's work to mediate the challenge of their poor adherence to quality. For example, BN who is a student herself quoted “I have to run the hectic errand of the long distance from my own home to downtown Cairo that takes hours where the craftsmen are based to check that piece per piece of the jewellery assembled is based on premium quality standards and evenly with absent *lamsa* or handprint, so those long hours compromised those dedicated to my studies as I sometimes finish my work with them at 11 pm”.

This is similar to SHH who said, “I have to be with them a whole working day to check the quality is performed with absent defects”. Also work/life balance was highlighted when the fashion entrepreneurs had to engage in a lengthy process of trial and error to cope with market void. BN commented “I spend a huge amount of time that could take months before I land a workshop that is trustworthy, I might even try 6 different workshops before I land a good one”.

4.3.5.2) Emotional wellbeing of fashion entrepreneurs:

Words referring to chronic states of stress and emotional burnout were used by fashion entrepreneurs unanimously to describe the psychological impact of their ecosystems. For example, IY described the dreadful encounters with craftsmen to be debilitating, reflecting “with the craftsmen, there is always a *moafara* or constant challenge of arguing with them”. In a similar emotional impact, WHS said “dealing with them especially when they don’t follow the quality standards, for me this is *harqet damm* or emotional burnt-out out of boiling blood”. Regarding the specific challenge of sexual bias, IY explained how the whole encounter is stressful saying “I feel the pulses of my pumping heart out loud because I am always anxious and I always *hatta eedy ala alby* or being hypervigilant that something unpleasant might happen”.

4.3.5.3) Entrepreneurial resiliency:

Resiliency is the competence of entrepreneurs to exhibit concrete adaptability to adversity especially when they must overcome daily societal problems with positive cognition (Becker & Kabongo, 2020). The fashion entrepreneurs stated that their passion for arts, fashion and design was the main reason that contributed to their resiliency. Such passion also led four of the fashion entrepreneurs to leave their corporate employed jobs that offered them lucrative salaries to have their businesses instead. For example, JR exclaimed “I do not consider those problems as challenges as such, actually I do not see any challenges in my industry, I much love what I am doing”. Likewise, WHS quoted “as an architect, I inherited the passion of art from my father who is a visual artist” further resuming “I have a particular interest in Chakra healings and the power of stones on the human psyche, so I do excel in creating designs with stones”.

4.3.5.4) Impact on the firm scale-up:

The fashion entrepreneurs identified that the human capital and market void resulted in frequent delays in shipments of the products, loss of sales, customer complaints and cash shortages. BN quoted “I witness unusual delays in the shipments of my customer orders and as a result, I have to financially compensate my customers financially and/or apologise for such delay, thus further constraining my financial abilities”. Likewise, ZS mentioned “not having enough finance is the main reason that is impacting my business growth and it is my main bottleneck. I therefore run my own business as a one-man show where I do everything myself as I cannot hire someone else”. Similarly, SHH quoted “I originally had my plans of expanding in terms of having my own physical office with a secretary rather than just being online, but financial struggles halted my plans to develop my business”.

Table 4.4: The characterisation of the fashion entrepreneurial ecosystem, the coping approaches taken by the fashion entrepreneurs to mediate the void and its impact on the ecosystem

Fashion Entrepreneurial Ecosystem		
Fashion human capital void	Characterisation of void	Representative quote
<i>Sanayee</i> or craftsmen manipulation and bias	Sexism and manipulation which led to doubting the entrepreneurs' seriousness was the first characterisation of fashion human capital void.	"I do have a problem with their attitude, perhaps the <i>sanayee</i> seriousness-doubt of my capabilities are either due to being a female or being of a young age" by BM
<i>Sanayee</i> lack of adherence to quality standards	Lack of adherence to quality which manifested in inconsistent measurement cuts	"The jewellery seems to have been assembled by a <i>mowawaq</i> or a disabled. If I ask for 1000 pieces, there have to be only 200 good ones, while 20 are so bad and 50 are not perfect" by RJ.
Lack of commitment to deadlines	With procrastination, the <i>sanayee</i> did not deliver their projects on time with unusual delays.	"The <i>sanayee</i> don't keep up to their words as they might agree on the delivery day to be a Saturday but later, I find out that they haven't even initiated the task required on the delivery day promised" by BM.
Absent placement agencies	With <i>Wuzzuf</i> used as an online placement agency for the digital sector, the fashion ecosystem had no placement platform that advertises for models.	"There is not even one platform that gathers all those who work as influencers I am aware of" BM

Fashion financial void	Characterisation of domain	Representative Quote
Absent governance to support the fashion ecosystem	There is a systematic failure to address this ecosystem as there is no intervention to offer financial aid to the entrepreneurs. Also, no structural reformations were introduced to change the banking system that does not acknowledge creative businesses as a source of business worth credit	"The fashion sector lacks systematic efforts to address its challenges and there are no policy interventions to positively support it" by WHS
Lack of awareness of the role of incubators in business	Although there exists an incubator market for fashion businesses of Nokoosh, Injaz and Itijah, 70% of the entrepreneurs were unaware of their role in their business and unaware of their existence	"I do believe that ITIDA is performing a positive role in the ecosystem and I was happy more than once to attend its exhibitions per invitation I even travelled under the auspices of it before and I was invited to travel and represent Egypt in international summits organised by the government and they covered the travel expenses" by HS
Resistance to external credit	The entrepreneurs unanimously resisted external credit because they preferred peace of mind to save them the hassle of debt repayment.	"I prefer my business to be free from such financial obligations. Working under such obligations will be similar to a <i>korbag</i> or a whip that mercilessly obligates me to pay on time" by WH
Fashion market domain	Characterisation of market domain	Representative quote
Resistance to social networking	The fashion entrepreneurs exhibited no willingness to network in their community because there exists a lack of trust climate with all of the parties involved in their ecosystem. The lack of trust stems from a culture that does not encourage property rights protection and competition rife in their	"I am a regular attendee of Make This! Whereby the owner Rania organises regular exhibitions at certain locations across Egypt and I book a booth at her promises to sell my recent artwork" by WHS

	industry. However, the only active online groups acted as marketing hubs in return for free not information-sharing	
Fragmented distribution channels	There were consistent problems in delivering the final product to the end customer. This is because the courier service has no systematic handling of customer complaints and an unethical performance of couriers.	“My complaint is usually relayed from one officer to another in a ping-pong manner without keen attempts to solve any, I called them many times and each time I met a different customer agent and I had to report my problem from scratch” by BM

Source: Author

Table 4.5: The coping approaches taken by fashion entrepreneurs to mediate the void and its impact on the ecosystem

Coping approaches to fill the human, financial capital and market voids	Characterisation of the coping approach	Representative Quote
Reliance on social capital for recruitment	The fashion entrepreneurs unanimously relied on their family and friends to perform photo shoots and conduct administrative complementary roles, as well as, deriving joy from the process of it.	“when my friends do modelling work for free for me, I save a total summation of 5,000 which is the usual salary for a modelling photoshoot if I hire a model that is not from my family” by SHH
Reliance on social capital for financial access	Led by the emotional support of their family, the female entrepreneurs relied on them for financial support	“I relied on taking loans from my family safe in the knowledge that I shall repay them in flexible time intervals as business independence comes at a later stage of a business venture” by YI.

Self-reliance	The fashion entrepreneurs relied on their efforts to cope with their ecosystem voids. This manifested in four ways micromanaging their craftsmen and tailors' work, adopting masculine behaviour, having in-house workshops and engaging in trial and error to mediate the human capital and market voids respectively.	"I usually have lots of voice notes asking regularly about the progress of my work and I have to constantly call them to check they are working on my order before attempting to take the long drive to the workshop in Downtown Cairo especially when there is no Wi-Fi in their area, so calling is the only option" by BN.

Source: Author

Table 4.6: The impact of the impact of the void on the fashion entrepreneurial ecosystem

Impact of void on the fashion entrepreneurial ecosystem	Characterisation of impact	Representative Quote
Work-life balance (WLB)	The fact that they relied on their efforts to mediate their market and human capital voids, caused work-life imbalance.	"I have to run the hectic errand of the long distance from my own home to downtown Cairo that takes hours where the craftsmen are based to check that piece per piece of the jewellery assembled is based on premium quality standards and evenly with absent <i>lamsa</i> or handprint" by BN.
Emotional-wellbeing of fashion entrepreneurs	The human capital and market void of dealing with <i>sanayee</i> and courier men caused emotional burnout and stress to the fashion entrepreneurs.	"Dealing with them especially when they don't follow the quality standards, for me this is <i>harqet damm</i> or emotional burnt-out out of boiling blood" by WHS

Fuel entrepreneurial resiliency	Led by a passion for artwork and entrepreneurship, the fashion entrepreneurs exhibited resiliency and a positive perception of challenges in their ecosystem.	"I do read many self-help books that tend to make me master my mind, so I learnt to shape my mentality and tame my thoughts to survive in the industry" by MO
Impact on the firm scale-up	The collective challenges of the ecosystem impacted their businesses scale-up	"I am limiting my finances as I am having troubles in growing my business and diversifying my product lines" by YI.

Source: Author

4.4) Chapter Summary:

This chapter deals with presenting the data findings and comparing them to the literature reviewed on the topic. The unit of analysis of this chapter was the digital and the fashion ecosystems, so the research questions of *1) What are the characteristics of digital and fashion human capital, financial capital, and market institutional voids? 2) How do digital and fashion entrepreneurs employ social capital to fill their regional voids? and 3) What is the impact of the voids on the digital and fashion EEs?* were discussed for the digital EE first followed by the fashion EE. After interviewing a sample of 31 digital to 10 fashion entrepreneurs in Egypt, research findings revealed that the digital EE, surprisingly and unexpectedly, had two evolving domains of its right; the financial capital and the market while the human capital was only functioning as void because it is underdeveloped.

This is an interesting finding because the context of the research was understanding the processes of EEs within the context of emerging markets that are characterised by institutional voids in the first place. For the digital sector, the financial capital domain has been surprisingly evolving due to the active role played by the government and the sector of incubators and accelerators that offered funding to twenty-seven of the digital start-ups.

Moreover, the market domain has been evolving led by the networking initiatives of the digital entrepreneurs that occurred either through business retreats organised by Elre7la.³⁸ and/or joining social media Facebook groups such as Lean Circle, MENA bytes and Rise-Up groups.

Those networking venues whether online or offline connected entrepreneurs with other members of the ecosystem such as suppliers, clients, personnel and/or co-founders and aided in the free flow of information on business operations. However, the only challenge that hindered the scale-up of digital firms was the human capital void because the digital EE had a scarcity of worker talent, a lack of commitment to deadlines and a divide in quality between states compared to international graduates. Reasons that are attributed to the Arab socialisation process and the cultural understanding of the value of time could explain the digital workforce's lack of commitment to deadlines and poor innovative and leadership skills. A third challenge of the digital human capital void was the variance in the quality of educational institutions between state and private education which reflected on the financial capabilities of the entrepreneur as digital entrepreneurs had to pay higher prices to attract and retain international graduates.

³⁸A firm that organises business retreats, elre7la, the letter 7 is pronounced as H, <https://www.elre7la.com/>

This variance was in terms of the endowment of the privately educated with communication competencies, business skills and a wide range of international languages compared to their state counterparts. To fill the only challenge of the digital human capital void, research findings revealed a gendered perspective on social capital (SC) for financial access, as well as resistance to SC for recruitment. This is because the digital entrepreneurs who categorically rejected social capital were males, whereas those who welcomed relying on social capital for financial access were females. Research findings further ascertained the role of gender in social capital access because the males who resisted social capital for funding stated reasons of power, autonomy and independence that are attributed to the typical masculine profile.

On the other hand, digital entrepreneurs irrespective of their gender resisted SC for recruitment due to the cultural reason of *assham* or falsified high expectations once personal and professional spheres are conflated. This happened because the corporate employed abused the conflation of personal and professional spheres between themselves and the digital entrepreneurs. Perhaps research conducted on Arab workplace behaviour and managerial styles by Hofstede (2011) could explain the resistance to social capital for recruitment. This is because the culture in the Arabic region prefers high-power distance with a propensity of separation between subordinate/employee from superior/manager. If digital entrepreneurs varied in terms of their reliance on social capital as a coping approach to fill their human capital void, they *unanimously* relied on their efforts.

This is as the digital entrepreneurs stated that they performed the belated workload of their workforce themselves and invested in their self-education to mediate the lack of their workforce commitment to deadlines, as well as the scarcity of the innovation skills and proactivity skills in the ecosystem. The impact of their reliance on their efforts resulted in work/live *imbalance* because the digital entrepreneurs worked more than the usual 9-5 workdays with some finishing their workload at 10 pm while others starting from as early as 6 am. However, an interesting finding is that irrespective of this challenge which could have threatened the quality of life and well-being of entrepreneurs as literature suggests by Stephan (2018) and Stephan et al (2022), they all exhibited resilience by choosing not to quit but rather fuelled their resiliency to accelerate their progress. They stated that they shape their mind to deal with their ecosystem challenges and not dwell on the challenges of their ecosystem. This is evidenced when social discrimination in the digital industry was not considered a challenge by MBA but rather an opportunity to learn the ropes of the English language and digital skills for the workforce.

Perhaps the passion of the digital entrepreneurs for their businesses, technology as an industry and/or entrepreneurship as a career path, could explain their resiliency and determination. For the fashion ecosystem, there were absent evolving domains whereas the human capital void had four challenges followed by three for the financial capital void and two for the market voids which explained the severity of the fashion EE. The human capital void manifested into challenges regarding the *sanayee* or craftsmen's behaviour such as their manipulation and sexual bias, their lack of adherence to quality standards, their lack of commitment to deadlines and the absent placement agencies in their ecosystem.

Two reasons explain the performance of the *sanayee* in Egypt in terms of the traditional and conservative socio-cultural mindset that believes that a woman's prime role lies within her family sphere performing child-rearing activities at the expense of her participation in the economic sphere. Also, the fact that the craftsmen in Egypt have been a marginalised sector economically and socially could be another reason that explains their poor performance. The fashion financial void had its challenges due to lack of governmental support, as well as reasons stemming from the fashion entrepreneurs themselves.

The government in Egypt failed to recognize and support fashion businesses to this day and banks still do not recognize artwork as a genre of business worth credit, unlike the Toronto policy that granted financial summations of from \$2,500 to \$5,000 besides training to Canadian fashion entrepreneurs for example. Other two characteristics of the fashion financial void stemmed from the fashion entrepreneurs themselves because they lacked awareness of the role of incubators for their business growth, as well as resisted any attempts to resort to external credit. For example, seven of the fashion entrepreneurs exhibited a lack of awareness of the role of incubators in their business compared to only three that were aware of *Nokoosh*, *Injaz* and *Itijah* offering funding to fashion entrepreneurs.

A possible explanation of the dominant lack of business literacy stems from the absence of business education from all state schools in Egypt, similarly, at the university level the Egyptian educational system lacks any cross-fertilisation between educational degrees, so business degrees cannot be studied with arts or design. Conversely, those who were aware of incubators and their role in business attributed their business literacy to an openness to experience and an eagerness to learn beyond the liminal boundaries of their school and collegiate curricula.

Moreover, the fashion entrepreneurs' strong resistance to relying on investors and/or incubators for accessing financial support was alluded to preferring the peacefulness of mind rather than the hassle of commercialising a business. Perhaps the fashion entrepreneurs' identification of their businesses as artwork rather than business could underpin their reason to resist external funding for their firm growth. Finally, for the fashion market void, data findings revealed that networks that existed in their ecosystem operated as advertising hubs for showcasing their designs rather than offering support or knowledge about market dynamics. The fashion entrepreneurs *unanimously* resisted social networking activities that connected them with other entrepreneurs and suppliers because the absent culture of property right protection dissuaded them from revealing information about their businesses. Another characterisation of the fashion market void pertained to its fragmented distribution channels that impacted the delivery of the product to the end consumer.

To understand the role social capital played in filling their ecosystem voids, data findings revealed that the fashion entrepreneurs *unanimously* relied on their circle of family and friends for both funding access, as well as recruitment. First, the fashion entrepreneurs directly recruited from their family and friends to perform modelling and photo-shooting sessions for their artwork while HSH wondered why not otherwise? and IY considered it as an opportunity. The fashion entrepreneurs identified that hiring directly from family and friends helped in improving business efficiency by offering complementary technical skills, as well as, improving the psychological capital of an entrepreneur due to having fun from just working together.

In addition, the fashion entrepreneurs *unanimously* relied on social capital to mediate their financial capital void rather than resorting to external credit for example. Four of the entrepreneurs who had their in-house workshops said that they had business partnerships with their supportive husbands. Indeed, the reason for their family's emotional support was offered as a justification for receiving funding from family and friends by the fashion entrepreneurs, as well as the flexibility in debt repayments.

However, besides social capital to fill human capital and market voids, the fashion entrepreneurs *unanimously* stated that they did rely on their efforts in a similar manner to their digital counterparts. Such self-reliance manifested in four ways micromanaging their craftsmen and tailors' work, adopting masculine behaviour that extended to vulgarity in some cases, having in-house workshops and engaging in trial and error to mediate the human capital and market voids respectively.

The impact of the voids of the fashion ecosystem is represented on micro, meso and macro levels. The challenges of the human capital void in particular regarding their encounters with the craftsmen impacted their emotional well-being and their work/life balance. A total of six of the fashion entrepreneurs who did not have their in-house workshops stated that they spent long hours micromanaging the craftsmen's work to mediate the challenge of their poor adherence to quality. Second, chronic states of stress and emotional burnout were identified by the fashion entrepreneurs *unanimously* to describe the psychological impact of the challenges of the human capital void of their ecosystems. Moreover, another impact of the voids was on the firm scale-up and growth because the fashion entrepreneurs witnessed frequent delays in shipments of the products, loss of sales, and customer complaints that resulted in frequent cash shortages.

Interestingly, irrespective of the challenges of those ecosystems, their resiliency and ability to exhibit concrete adaptability to adversity were unanimously exhibited by the entrepreneurs because they refused to quit, whereas JR for example did not consider the challenges in her ecosystem as challenges in the first place. Perhaps the passion for arts, fashion and design could be the fuel for their resiliency that led four of the fashion entrepreneurs to leave the corporate employed jobs that offered them lucrative salaries to have their businesses instead.

Chapter Five: Discussion of Data Analysis

5.1) Introduction:

This chapter deals with discussing and analysing the research findings presented in Chapter Four. This chapter starts by discussing the meaning of the findings of both ecosystems in terms of each of the respective research questions. As earlier chapters explained, researching how local entrepreneurs fill their regional voids, means understanding the logics of an EE functioning, the coherence of its elements, and the allocation of resources undertaken by entrepreneurs. However, studying EEs processes remains imbalanced with studies of conceptual EEs with a ratio of 51/60 based on Cao and Shi (2021) research.

The impact of this gap is that literature on entrepreneurial ecosystems does not offer a comprehensive framework on the EEs phenomena. Moreover, studying the processes of an ecosystem in EMs remains overlooked compared to developed economies although EEs are a global phenomena. Literature on EEs considers entrepreneurship of impact to be the outcome of developed formal institutional frameworks, yet EMs hold different institutional arrangements (Audretsch et al, 2021) which could threaten the full realisation of EE's potential. This literature gap lends credence to the aim of this thesis of *studying how local entrepreneurs in regions of institutional voids, draw on their regional resources to explore, evaluate and exploit the opportunities to scale up firms*. As the literature review chapter detailed, this thesis follows the description of markets as being characterised by institutional voids or gaps, not vacuums, that are rich in opportunities awaiting exploration (Khanna &

Palepu, 2010). The thesis's primary research question is *What are the characterisations of the digital and fashion EEs in the context of human capital, financial capital, and market institutional voids?* To answer this primary research question three interdependent sub-questions are derived; 1) *What are the characterisations of digital and fashion human capital, financial capital, and market voids?* 2) *How does social capital play a role in mediating the impact of the voids?* and 3) *What is the impact of the voids on the EEs?*

The primary finding of the thesis is that regardless of the prominence of both ecosystems post the 2011 era, yet, both ecosystems were found to vary in terms of the constituents of their voids, how their respective entrepreneurs relied on social capital for funding and recruitment, the impact of their voids and their stages of growth. Actually, the variances between both ecosystems were found to be more than the commonalities between them. Those findings suggest that there are two industry-based ecosystems operating separately in Egypt. Data findings also suggest that the digital ecosystem is operating strongly and is at its stages of growth cycles to maturity compared to an embryonic fashion ecosystem. This thesis finding, for example, contradicts comparative spatial research on EEs which concluded that both Tokyo and Bangalore ecosystems are developing and strengthening over time for example (Kapturkiewicz, 2022). The next sections compare and contrast the digital to fashion EEs regarding the characterisation of each, the role social capital played to mediate each followed by the impact of the voids on both ecosystems.

5.2) Differences in the characterisation of the digital and the fashion entrepreneurial ecosystem:

The first research question sought to compare and contrast the constituents of the financial capital, human capital and market voids of digital to fashion ecosystems. This is because questions such as *Which void precedes which? Are both ecosystems operating equally in their voids? Are both voids equal in terms of their severity and constituents? Which element is more prominent for effective ecosystem operation?* and *Which one that its absence impacts the functionality of the whole ecosystem*, remains unanswered in the EEs literature. Findings revealed that both ecosystems shared only human capital void while both ecosystems varied in terms of their characteristics. This supports the argument that the fashion and digital ecosystems are operating separately in Egypt.

The digital EE has only its human capital operating as an institutional void while its financial capital and market are, surprisingly and unexpectedly, operating as functioning and *resourceful domains*. The digital ecosystem is growing led by an active sector of incubators and accelerators that offer soft funding (financial domain), a supportive policy intervention (financial domain), and entrepreneur-led networking events (market domain).

On the other hand, the fashion ecosystem has a plethora of challenges with a lack of evolving domains as it lacks policy intervention (financial void), its entrepreneurs lack awareness of the role of incubators in business (financial void), they resist networking (market void), resist access to external credit (financial void), have absent placement agencies their *sanayee* poorly adhere to quality standards and are biased (human capital void).

The first area of difference between both ecosystems was in terms of the role of incubators and accelerators for funding which contributed to the growth of the digital financial domain and the underdevelopment of the fashion one. This finding of the existence of incubators and accelerators in EMs counterargues Estrin et al (2019), besides, Cao and Shi (2021) claim that venture capitalist funding is more utilised in developed markets than in EMs. Estrin et al (2019), besides Cao and Shi (2021) claimed that emerging economies lacked structural funding in terms of scarcity of accelerators and incubators that offer funding and education to entrepreneurs.

Comparatively, KOM, for example, reflected on the flourishing financial domain for digital businesses and extrapolated the saturation of this domain in a few years. The active role of incubators and accelerators in an ecosystem spawns a large number of growth start-ups because they support entrepreneurs with technical skills and enterprising knowledge (Brown & Mason, 2017; Theodoraki et al, 2018; Spigel, 2016). The EEs literature suggests that a financial domain operates effectively when there is a mass of accessible seed and start-up investors, venture capitalists (VCs), incubators and accelerators, as well as angels (Mason & Brown, 2014; Nicotra et al, 2018; World Economic Forum, 2013; Stam & Spigel, 2018; Sharma et al, 2023). This condition for firm growth is identified for the digital EE because 27 of the digital entrepreneurs credited the incubators and accelerators of Endure, Endeavor, MINT incubator, Falak, flat6labs, and Egylab alongside the leading university incubation of the American University in Cairo (AUC) V-Lab to support their business scale-up.

Specifically, the digital entrepreneurs relied on accelerators and incubators to access funding for their venture scale-ups and attract pricy talent which alternative financial intermediaries such as banks cannot offer because the latter have stringent requirements for credit. Not only did incubators offer funding but they offered entrepreneurship educational programmes in a region in which business education is absent from all state schools. Incubator-led entrepreneurship programs helped entrepreneurs in winning multiple investment rounds which further led to the scale-up of their businesses. SBA, for example, reflected on how AUC V-lab acted as his *beauty* or home for morphing him into an effective businessman. On the other hand, despite having *Nokoosh*, *Injaz*, and *Itijah* that could offer support to fashion businesses, yet the fashion entrepreneurs preferred to rely on social capital instead to access funding. Indeed, it was the fashion entrepreneurs who resisted external funding for reasons of avoiding “*wagaa demagh*” or the burden of repaying as JR puts.

Perhaps the lack of business literacy that is prevalent in Egypt and the absence of enterprising skills from all state schools did play a role in their lack of awareness of the potential role of incubators in their business growth. State university education has been offered *for free* since the Egyptian president ‘Gamal Abdul Nasser’ nationalised the education sector in 1963 (Ghazal, 2014; Loveluck, 2012). Such abolition stemmed from socio-political values that promoted social equality based on the ideation that ‘education should be free as air and water are³⁹’.

³⁹ This phrase is a popular phrase mentioned by the Egyptian Nobel laureate ‘Taha Hussein’ contention.

The impact is that since then public universities in the Arab region have been focusing on quantity rather than quality to absorb the needs of its ever-increasing population against the backdrop of limited university resources. Those limited resources resulted in budget deficiencies, strains in infrastructure, and inadequate facilities that contributed to the poor state educational quality (Ghazal, 2014; Hammad et al, 2023; Loveluck, 2012).

However, it is interesting to find out that despite such literacy being a common regional challenge for both entrepreneurs, yet the digital entrepreneurs *unanimously* enrolled in various online educational platforms to equip themselves with business education, something which the fashion entrepreneurs did not pursue. It is therefore a possible explanation that the fashion entrepreneurs' perception of their businesses as artwork rather than a business was a factor in their resistance to external credit. This is because they did not show any active pursuits in becoming business literate.

Also, throughout the interviews, the fashion entrepreneurs referred to themselves as designers, whereas the digital entrepreneurs referred to themselves as entrepreneurs which further supports how their articulation of their ventures factored in their resistance to external credit. This finding corroborates with the research of Borin et al (2018, p.49 & 57) that external credit faces low demand from fashion entrepreneurs themselves for reasons of the identification of their ventures as "an act of creativity rather than profitability" which interestingly WHS referred to "as actually not that much of a business but more artwork of creativity".

Another area of difference between both ecosystems was in terms of policy intervention which promoted the growth of the digital EE while its absence was detrimental to the growth of the fashion ecosystem. The role of a localised intervention by public support has been applauded as a prerequisite for the promotion of a healthy ecosystem because they enable an environment that is conducive to firm scale-up (Brown & Mason, 2017; Brown & Mawson, 2019; Mason & Brown, 2014; Spigel, 2020). Perhaps such a difference in the policy intervention stems from the Egyptian government's ambition of becoming a technology powerhouse in the region.

Nevertheless, the government still overlooks the significance of creative businesses, art, and design for contributing to regional growth. There is a possibility that the remnants of the 1960s socialist era which heavily marginalised arts, design, and creative businesses contributed to the negligence of this promising sector, whereas the country is actively laying the foundations of digitising its services. Egypt's digital intervention in 'Digital Egypt' is similar to top-down policies in Japan led by the concerned Ministries of Economics and local governments with initiatives such as Start-Up City Fukuoka and the Tsurouka city to support tech local ecosystems.

Likewise, Digital Egypt is a top-down policy led by the government and the Ministry of Communications and Information Technology to improve the digital EE. The vision includes developing digital literacy and creating 25,000 jobs in the technology sector alone (Egypt ICT strategy, 2021). Also, the Central Bank of Egypt (CBE) developed for the first time a consistent definition of SMEs in March 2017 and injected 11.5 billion EGP to fund SMEs which

manifested in the formulation of 653 start-ups owned by Egypt innovate (EI) online hub alone (Ali et al, 2021; Metawea, 2020; Mansour et al, 2018).

On the other hand, the fashion ecosystem lacked any supportive intervention. In their paper, Brown and Mawson (2019), alongside, Stam and Spiegel (2018) explained how absent policy interventions that address financial support are systemic failures detrimental to ecosystems because supportive interventions are feeders of an ecosystem that furnish economic and legal environments. The condition of the absence of a supportive intervention for the fashion EE contributes to its underdevelopment. This is because the banking sector still does not acknowledge artwork as a genre of business worth funding while MSME is the only organisation that offers funds to design and artwork but with low credit.

A third area of difference between both ecosystems stemmed from the behaviour of the entrepreneurs themselves in contributing to the evolution of their market domains/voids. The digital entrepreneurs are leading their market domain by actively engaging in their local communities whereas the fashion entrepreneurs resisted networking altogether.

Described as ‘deal-breakers’ of an ecosystem by Mason and Brown (2014, p.10 & 11), EEs literature exemplified how networking is the lifeblood of an ecosystem (Purbasari *et al*, 2019; Spiegel, 2016). This is because the ‘local buzz’ of contacts promotes the free flow of information about new technologies vital for entrepreneurial learning (Brown & Mason, 2017; Bathelt et al, 2004; Purbasari *et al*, 2019). Conversely, the fashion entrepreneurs resisted any networking activities due to competition rife in their industry, besides, a culture amongst the craftsmen that still infringes property rights.

On the other hand, the digital entrepreneurs actively engaged in networking activities through either attending business camp retreats of *Elre7la* and/or engaging in online Facebook communities. However, whilst debating the preference of online to offline networking, the digital entrepreneurs advocated online communities as they involve a wider audience of subscribers than physical locations do alongside saving the commute distance and valuable time.

Those networking activities provided digital entrepreneurs with mentorship, business partnership opportunities, and information-sharing for free that acted as necessary resources for the scale-up of their ventures. Indeed, this finding of networking through online social media contributes to the literature on entrepreneurship and networking. Knowledge spillover contributes to regional growth by sharing technology information, however, entrepreneurship literature thoroughly discussed the classic impact of tacit knowledge by primarily focusing on face-to-face interactions (Audretsch & Feldman, 2004; Glaeser *et al*, 1992; 2002; Porter, 1990; Jacobs; 1969; Van Soest *et al*, 2006).

This happens when talents meet up and locally co-exist to acquire specific information, absorb it, transform it then widely share it in their communities creating what Gertler (2003, p.27) called sharing of 'secret of success performance' from just being there. As an example of spatial locations, Rocha et al (2022) exemplified how tech, business, and career groups organised networking activities in Edinburgh through meet-up platforms.

Another classic example of how the geographical proximity of businesses was in Khan Al Khalili in Egypt. Coleman (1988) reflected on how the interaction and organizations of the merchants in this region facilitated local interactions and shaped its effective operation. This thesis finding, however, expands on the venues of communication by advocating for the effective role of online networking through Facebook groups. This finding corroborates with research by Hafeez et al (2019) on how virtual communities of practice (VCop) improve knowledge sharing within communities of entrepreneurs. VCops are groups of people who share a concern or a passion about a certain topic and who deepen their expertise in this area by interacting on an ongoing basis (Hafeez et al, 2019). Therefore, the benefits of regional and firm growth that the literature on spatial agglomeration argued for could be attained through a boundaryless existence such as in the case of online networking. Benefits specific to virtual networking are speedy social support of instantaneous messaging, and a wide flow of information across various groups, which helps in access to new skills and talent (Boase & Wellman, 2006; Cummings et al, 2006).

On the other hand, fashion entrepreneurs resisted networking to fill their market voids. They also preferred to have in-house workshops and rely on their selves to mediate their human capital and market voids. Those manifestations of lack of networking could be attributed to the climate of lack of trust between the fashion entrepreneurs and other parties of their ecosystem including their fashion counterparts, the craftsmen, and the courier services. Such a lack of trust in the climate stemmed from the unethical behaviour of the courier sector and the craftsmen in Egypt.

Data findings revealed that the courier delivery men stole the fashion entrepreneurs' financial entitlement and vanished into thin air. Similarly, the gaslighting behaviour of the craftsmen in Egypt and their lack of quality standards further fuelled a climate of lack of trust. Trust is a precursor in business relationships because it supports collaboration, reliance, and interdependence (Fukuyama, 1995). It factors in business operations because it reassures that the other person will act benevolently, hence promoting dependence and reliance on multiple parties of an ecosystem (Mouzas et al, 2007). Arguably, this yearning for dependence and reliance is not the case at hand for fashion entrepreneurs. This is clear when fashion entrepreneurs choose their business independence by having their in-house workshops because they believe that the *sanayee* will act with malicious intentions. Although Skinner et al (2014) argued that lack of trust could stem from poor judgment, data findings revealed that it is the craftsmen and the couriers' erratic and unethical behaviour that contributes to the atmosphere of antitrust. This is evident when WHS reflected on how she is constantly sent images of her designs and finds them as profile pictures.

The fourth area of difference between both ecosystems was in terms of the characterisation of the human capital void. On the one hand, the digital ecosystem void was in terms of the scarcity of digital talent and the divide in educational quality which contributed to the underdevelopment of its human capital void. This finding of weak human capital is similar to research on Romanian EE by Radauer and Roman (2016) who concluded that poor entrepreneurship skills and weak, Science, technology, engineering, and maths (STEM) did impact their ecosystems.

Reasons such as the Arab socialisation process that encourages submission and conformity to '*al-zaim*' perhaps explain the absence of critical thinking skills and proactive initiatives. This eventually leads the child to subconsciously learn that authority figures are unquestionable while obedience, submission and compliance are considered virtues at the expense of developing inquisitive minds which are perceived as signs of lack of disrespect to *zaim* (Sidani & Thornberry, 2010). This specific reasoning for the reliance on the paternal figure in the Arab⁴⁰ Family dynamics have been found as an antecedent to the challenging Arab work ethic by Sidani and Thornberry (2010, p.40).

Sidani and Thornberry (2010) revealed that a lack of leadership skills can be understood in terms of the cultural conditioning prevalent in the Middle East because since childhood an Arab is taught at both schools and his/her home that the dynamics of power result in a zero-sum game so that one party 'namely *zaim*' or the leader is dominating while the other is dominated (Sidani & Thornberry, 2010 p.39). It is noteworthy to mention that although those traits have been installed since childhood, it becomes difficult to unlearn their patterns of behaviours in adulthood (Sidani & Thornberry, 2010); a matter which reflects negatively on the scale-up of digital firms. Also, the free state Egyptian education system that has been in place since the socialist regime of the Nasserite era possibly explains the divide in the quality of education between public and private systems.

⁴⁰ The term "Arab" as used in this context tends to display certain common models of thought and personality traits of the "Arab national character" as advocated by the famous Arab sociologist "*Ibn Khaldoun*" (Sidani & Thornberry, 2010). I thereby acknowledge, similar to other ethnicities, the inter-variances and the diverse traits, customs and historical experiences of the inhabitants in the Middle east and north Africa region. In my attempt here, I am not seeking to condemn the Arab personality or undermine its character, but it's a genuine attempt

Comparatively, the severity of the fashion human capital void stemmed from Egypt's patriarchal culture, the *sanayee* unappealing socio-economic conditions, and the region instability that impacted their work ethic. YI addressed how craftsmen are overlooked asking for further investment in this sector which could be by gathering them in one location. However, regardless of the reason for such human capital void, still, the impact is that *sanayee* or craftsmen are biased, lack commitment to deadlines and lack adherence to quality standards.

Yet it is not mentioned that the only variance that was found between both ecosystems was the lack of commitment to deadlines. Such a challenge can be understood in the context of the Arab communication styles by Feghali (1997, p.336) who stated that the Arab attitude towards time is of a "merely reference point" rather than of strict adherence to clocks or calendars (Feghali, 1997; Lindquist & Scarborough, 2007). Also, multi-tasking is fairly common in the region guided by a time dimension known as polychronic which perhaps underpins the Arab elasticity of time perception (Feghali, 1997; Lindquist & Scarborough, 2007; Sidani & Thornberry, 2010). On the other hand, western cultures tend to perform only one task at a time as they conceive of time as a value that is saved, budgeted, and spent unlike the case of the Middle East and Southern Europe (Feghali, 1997). Indeed, this only common finding of lack of communication further supports the argument that the variances are more than the commonalities for both ecosystems which means that they are operating differently. Figures 5.1 and 5.2 illustrate the characterisation of the digital and the fashion EE regarding their respective voids/domains.

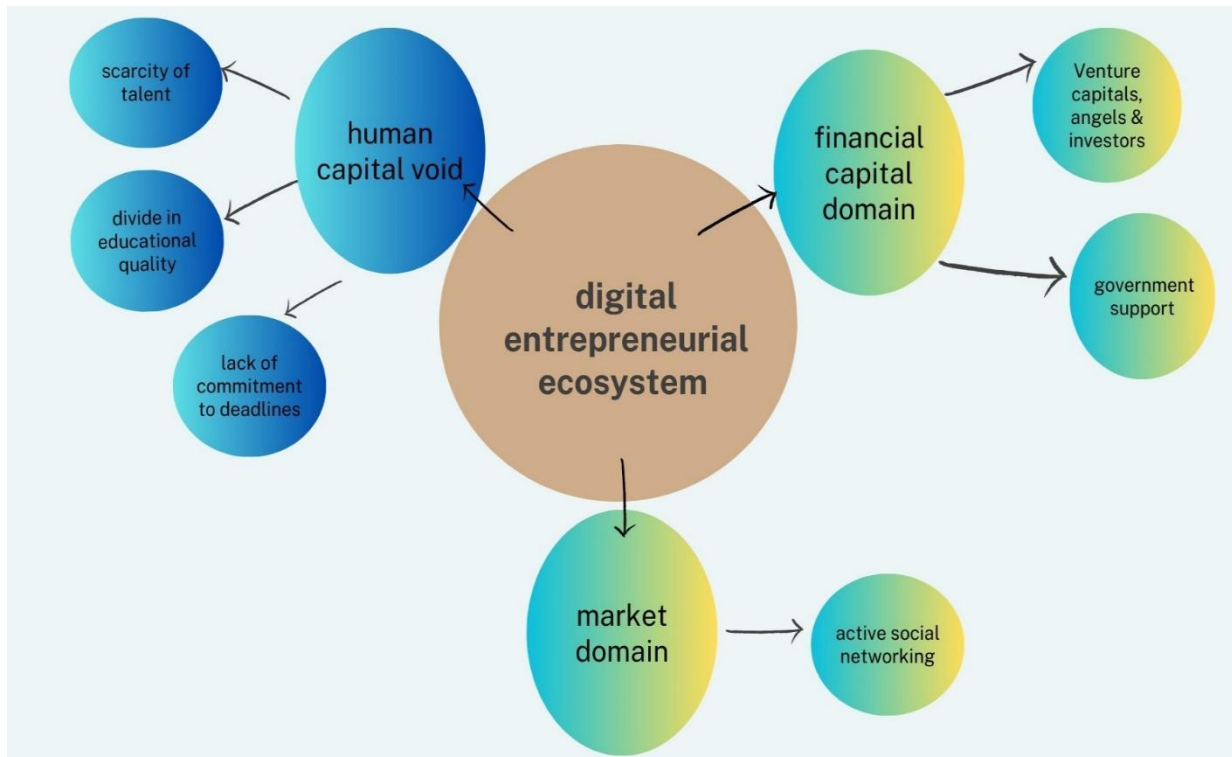


Figure 5.1: The characterisation of the digital ecosystem

Source: Author

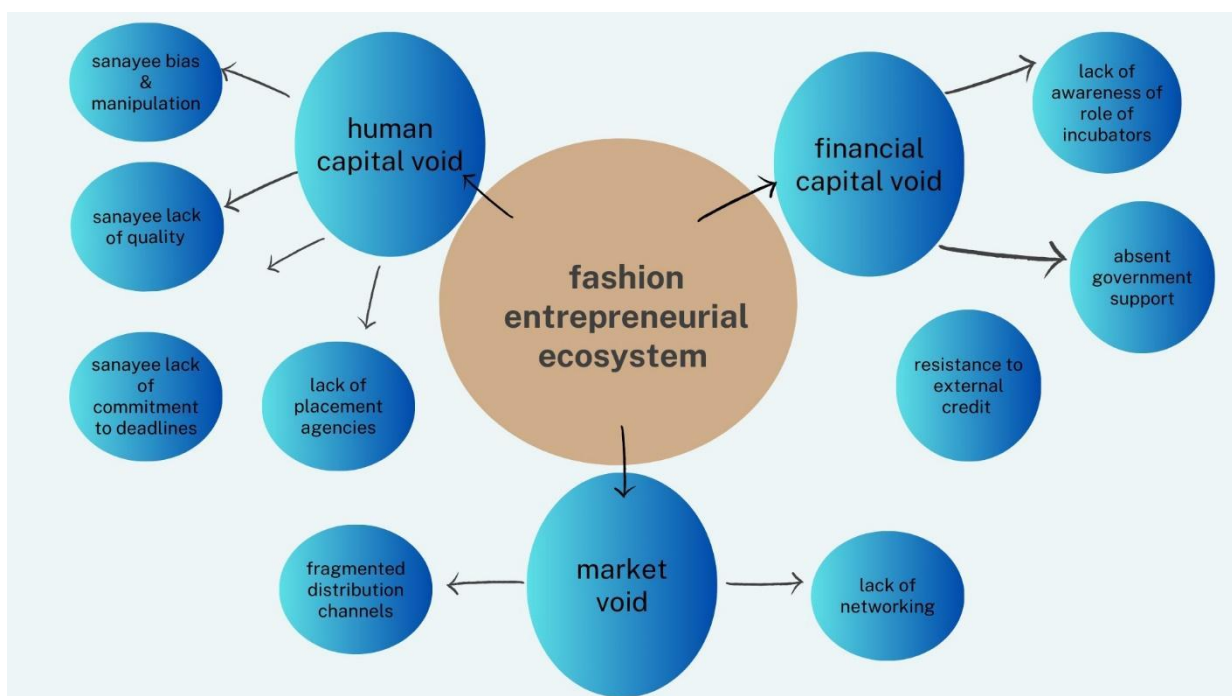


Figure 5.2: The characterisation of the fashion ecosystem

5.3) Differences in how digital and fashion entrepreneurs employ social capital to fill respective voids:

Not only did both ecosystems vary in terms of the constituents of their ecosystems but they varied in terms of relying on social capital to mediate their respective voids. The second research question sought to investigate how social capital played a role in mediating the respective voids for both ecosystems. The question of *How do local entrepreneurs systematically allocate social capital to fill their specific financial, human, and market voids? How do entrepreneurs as active agents seek to grow their businesses?* remains unanswered in the literature. The theoretical framework argues that an entrepreneur can rely on ties with his/her networks of family and friends to access funding, recruit talent, and access exclusive information when alternative approaches are limited. Interestingly, data findings revealed that as there was reliance on social capital from the fashion entrepreneurs, there was strong resistance to it from their digital counterparts. This finding further supports the general argument that two industry-based ecosystems are operating independently because another representation of such difference is how both entrepreneurs varied in terms of employing social capital to fill their respective voids.

Data findings propose a two-fold perspective on social capital in business; an industry-based perspective on social capital for recruitment and a gender-based perspective on social capital for funding. On the one hand, fashion entrepreneurs utilised social capital to directly recruit talent.

This finding of relying on social capital in the fashion industry extends to the prominent role of social capital in the creative industries in Germany, Croatia, and Mongolia because their entrepreneurs relied on clustering with friends and family to increase economic capital (Konrad, 2015; Fojs et al, 2017; Chuluunbaatar et al, 2014). On the other hand, the cultural reasons for '*assham*' or falsified high expectations justified the digital entrepreneurs' resistance to social capital in recruitment. This is because their employees abused the conflation of personal and professional spheres to evade work commitment and ask for elongated holidays just because "just because they are the friends of the boss who is me" as SA noted.

This interesting finding contributes to the less pronounced and overlooked stream of research that sheds the light on the dark side of social capital in business compared to the mainstream idolising social capital for its positive impact of mobilising firm resources (Ruef et al, 2003; Mian & Qureshi, 2016; Davidsson & Honig, 2003; Sorenson, 2018; Stuart & Sorenson, 2005). Indeed, this another interesting finding of the cultural reason of *assham* expands on the literature on the dark side of social capital because it promotes a cultural-based justification rather than the literature firm-based justifications as in the cases of Edelman et al (2004) and Strindlund et al (2022) in the contexts of the UK and Sweden respectively. In addition to the industry-based perspective, data findings propose another gendered perspective on social capital for financial access. This is because the female entrepreneurs with 13 of both ecosystems *unanimously* relied on their family members to gain access to cash and, therefore, mediate the severity of the financial void.

A gender perspective on social capital has been explored in similar contexts of Africa, Jordan, Germany, China, Turkey, Pakistan, and Northern Ireland to suggest that female entrepreneurs relied on informal sources of funding such as networking with their family and friends rather than resort to formal credit (Alakaleek & Cooper, 2018; Konrad, 2015; Omeihe, 2023; Wang et al, 2022; Yatim, 2008).

On the other hand, a sense of autonomy and independence, besides, a lack of parental emotional support were identified by the male entrepreneurs to underpin their resistance to social capital for funding. Research on gender and entrepreneurship concluded that self-governance, independence, and autonomy were typical traits of men, so perhaps this masculine entrepreneurship profile explains the male digital entrepreneurs' resistance to social capital while preferring rather to rely on incubator and accelerator funds instead (Elliott et al, 2022; Li et al, 2020). Not only gender but another interesting finding between both entrepreneurs stemmed from the difference in their familial emotional support. This is because the female entrepreneurs of both the digital and fashion ecosystems had emotional support which acted as an antecedent for their parental financial support, contrarywise, the lack of emotional support for the male entrepreneurs precluded any financial access. If entrepreneurs varied in terms of employing social capital as an effective medium, both groups of entrepreneurs relied on the common approach of self-reliance to fill their respective human capital voids and the market-specific void of the fashion ecosystem yet with different manifestations.

This finding expands on the literature on coping approaches that entrepreneurs in emerging markets employ to fill their regional voids and adds new dimensions to the literature on institutional voids. The fashion entrepreneurs preferred social capital for funding rather than the alternative approach of resorting to external credit whereas 4 preferred to have their in-house workshops to avoid being at the mercy of the *sanayee*. Within the same approach of self-reliance yet with another manifestation, the digital entrepreneurs relied on the approach of self-education followed by mentorship to mediate the scarcity and/or the pricey digital talent. Also, they performed the belated duties of their workforce themselves to ensure projects were delivered on time. Self-education was attained through enrolling in online business schools such as Y Combinator/and online educational platforms such as Udemy, Linda, or YouTube. Likewise, the fashion entrepreneurs relied on the same approach of self-reliance to mediate the fashion human capital and the market voids whereas they alternatively relied on social capital to mediate the financial void.

However, self-reliance for the fashion entrepreneurs manifested in four mechanisms of micromanagement, exhibiting masculine behaviour, having in-house workshops and/or engaging in multiple rounds of trial and error to cope with the *sanayee's* lack of adherence to quality, their lack of commitment to deadlines, their bias, and the underperforming courier service respectively. Interestingly, this coping approach of the entrepreneurs' reliance on their efforts supports the argument of the EEs literature that an entrepreneur, rather than the firm, lies at the heart of the entrepreneurship process compared to the firm-focus of the RIS literature (Spigel & Harrison, 2018).

It also corresponds to the call in the literature of EEs that sought to understand the role an individual entrepreneur plays in the ecosystem (Alvedalen & Boschma, 2017; Isenberg, 2011; Spigel, 2016; Stam & Spigel, 2018; Shwetz et al, 2019; Wurth et al, 2022). Therefore, this research concludes that both digital and fashion entrepreneurs are the ‘regional champions’ of their ecosystems (Feldman, 2014, p.12) because they primarily employ their efforts to mediate their respective voids. The coping approaches are evident in Figures 5.3 and 5.4 which illustrate how digital and fashion entrepreneurs employ the coping approaches to fill their respective voids. The figures explain how each coping approach has an output of filling the respective void and how it impacts the respective EEs.

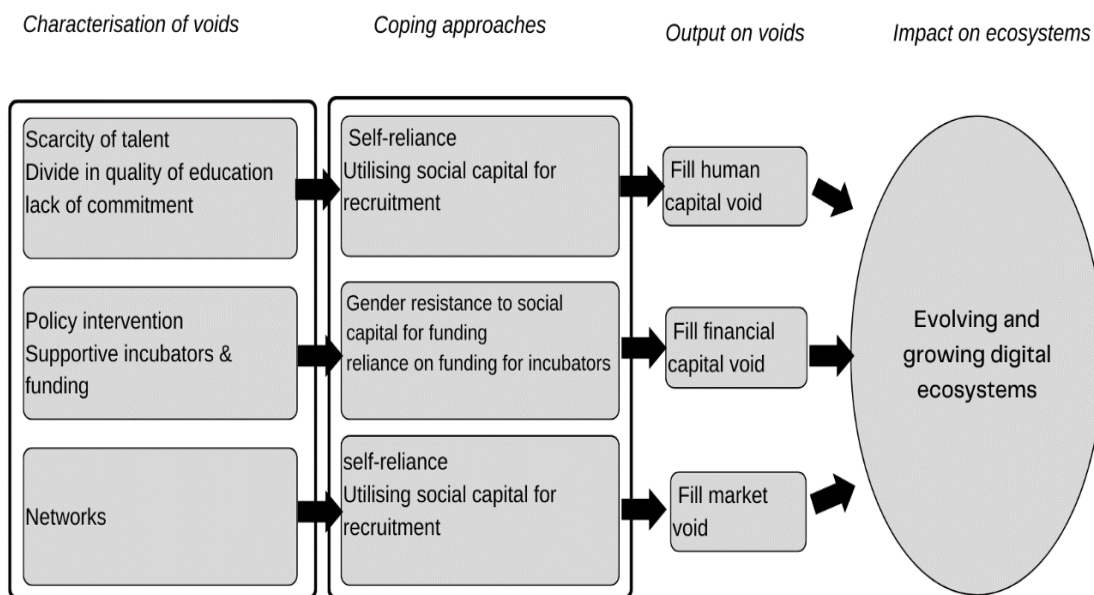


Figure 5.3: The coping approaches employed by digital entrepreneurs and their impact on the digital ecosystem

Source: Author

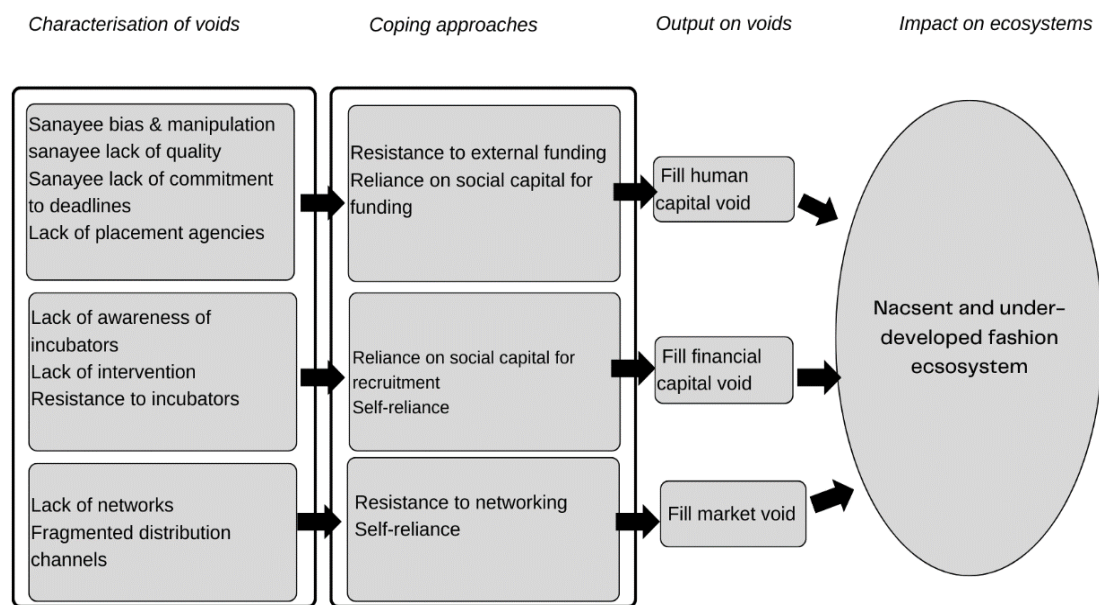


Figure 5.4: The coping approaches employed by the fashion entrepreneurs and their impact on the fashion ecosystem

Source: Author

5.4) Differences in the impact of the voids on both ecosystems:

The third research question sought to understand the impact of the voids on both ecosystems. Questions as to *What is the impact of the process of voids or domains on ecosystems? What is the cause-and-effect impact of voids on the processes of EEs?* have been unanswered. Data findings revealed that both ecosystems shared only one impact of work/life imbalance on the micro-individual level. However, the fashion ecosystem voids exceeded that of the digital EE.

This is understood when the fashion entrepreneurs had specific emotional well-being (micro) and firm (meso) tiers of impact that were absent from the digital ecosystem. The growth of digital firms is represented in the valuation of those businesses since their inception. As chapter three highlighted 11 of the businesses valued between \$1-5 million 3 stated that their valuation exceeded \$ 5 million since their inception after 2011. This finding further supports the argument that the differences between both ecosystems are more than their commonalities and that the digital ecosystem is growing compared to a nascent fashion ecosystem. Entrepreneurship is a demanding career, labour intensive, and requires extreme on-demand schedules (Ezzedeen & Zikic, 2017; Tahir, 2022). As well, literature on psychology and entrepreneurship identified that the blur of boundaries between work and other life roles is a defining element of entrepreneurship careers. In that vein, the Egyptian entrepreneurs were similar to their Emirati counterparts in prioritising their work commitments over other life aspects research by Tahir (2022) concluded.

However, the fashion entrepreneurs perceived the challenges of their ecosystem in a more negative light that compromised their emotional well-being. Indeed, this finding expands to the literature on EEs by adding a tier of the micro impact on the individual entrepreneur. Extant literature on EEs mainly addressed the impact of misaligned institutional arrangements of voids in emerging markets to hamper the growth of firms and lead to an aggregate impact of unproductive entrepreneurship for the economy (Audretsch et al, 2021; Stam, 2015; Baumol, 1996).

Also, this thesis finding of the impact of the processes of EEs on the individual entrepreneur expands on the literature on EEs by Cosenz et al (2023) and Theodoraki and Messeghem (2017) by adding a micro foundational tier of the individual entrepreneur as an independent construct. For example, Cosenz et al (2023) believed that the micro-level foundations of EEs include the interactions between agents of an ecosystem such as the firm and the academic institution. On the other hand, Theodoraki and Messeghem (2017) believed that the micro foundation of the process of an EE is a business incubator because it is driven to create business relationships with other actors in the ecosystem. Nevertheless, data findings revealed that the process of EEs could have an impact on the entrepreneur as an independent construct. Remarkably, this finding coincides with the EEs literature having the entrepreneur at its core.

Those findings are represented in Figures 5.6 and 5.7 which illustrate the three-tier impact of the voids on both ecosystems. As such, those findings reveal that the digital EE is operating strongly and is at its stages of growth based on research on the lifecycle and types of ecosystems by Mack and Mayer (2016) Spigel and Harrison (2018), and Colombelli et al (2019). This finding corroborates World Bank (2017) document describing the dense Egyptian ecosystem as advancing compared to the nascent one in Beirut, Lebanon (Mulas, 2017).

Propelled by the Egyptian unicorns of *Fawry* and *Souq*, the digital ecosystem has saturated the financial market, easy access to capital, intervention by policymakers, as well a supportive infrastructure of networking. The finding on the role of capital in promoting an ecosystem in Egypt corroborates with research by Arruda et al (2015) in Brazil led by capital funding.

Although the Egyptian digital ecosystem has a noticeably challenging human capital void of scarcity of talent and a divide in educational quality that could have threatened its sustainable growth, yet the digital entrepreneurs mediated successfully that gap. They were able to engage in both self-education and performing the belated tasks of their workforce themselves. The interesting finding was that although those approaches resulted in work/life imbalance, still they were not perceived in a negative light. Only 2 of the digital entrepreneurs considered self-reliance and the prolonged working hours as a burden compared to the predominant majority who perceived it as a learning opportunity.

This finding of the association between working long hours and mental well-being (MWB) has been addressed by Millán et al (2013) and Stephan (2018) and acts as a stressor that, paradoxically, produces happiness. This occurred because entrepreneurs enjoy the type of job they do and perceive it as an opportunity for future achievements. Perhaps, the passion the sample *unanimously* exhibited towards entrepreneurship as a career path, as well as technology shaped their cognition to positively perceive their attempts to mediate the ecosystem gap.

However, regardless of the growth of this ecosystem, yet findings offered a dark side of social bias worth attention. Individuals are arrayed into a hierarchy of social class varying upon wealth, clothing, education, and abundance of social and economic resources (Kraus et al, 2011). Findings suggest that the current practices of their ecosystem networking are guided by social class discrimination because it supports superior individuals who are wealthier, fluent English speakers, and internationally educated.

The impact of such social bias is that the digital EE could be operating as a closed tight knit of the upper class while excluding non-Cairene and non-English speakers or those from state universities. Such a challenge of the inclusion of the middle class into the digital EE is alarming because inflation post-Covid-19 and the Ukrainian war soared to 21.9% squeezing the struggling middle class; thus, further polarising the class system in Egypt (France 24, 2023; Khaldon, 2022). Anyway, it is further interesting to find out that digital entrepreneurs are embracing such elitism rather than perceiving it as a challenge. On the other hand, the Egyptian fashion ecosystem is weak, and sparse and is at its embryonic stages due to the severe underdevelopment of its market, human, and financial capital voids. The human capital void is the most severe of having four characteristics followed by financial capital and lastly the market. At the early stages of an ecosystem, policymakers have an absent orientation toward supporting an ecosystem, the market is still inaccessible, human capital is challenged, networking is weak, and capital is available but limited in number (Colombelli et al, 2019; Mack & Mayer, 2016; Spigel & Harrison, 2018).

Those elements explain the underdevelopment of the Egyptian fashion ecosystem. The main impediments to the growth of the fashion EE are represented in the poor *sanayee* performance, their lack of adherence to quality, their bias and manipulation, fragmented distribution channels and performance of couriers, as well as absent recruitment agencies. Moreover, the absence of policy intervention due to governmental failure in recognizing the value of the fashion industry in Egypt as stated earlier further contributed to the nascence of this ecosystem. This finding is similar to research by Colliander (2015) on the Finnish fashion EE that lacked supportive intervention as well to promote its growth.

Nevertheless, although the lack of supportive intervention is a systematic failure detrimental to the fashion ecosystem's growth, yet it cannot be blamed alone for the weakness of the fashion ecosystem. This is because the fashion entrepreneurs themselves are playing a very active role in the weakness of their ecosystem. In fact, despite their attempts to successfully mediate the gap of their voids by relying on social capital and their four approaches of self-reliance which supported the existence of an ecosystem in the first place. Nevertheless, their resistance to external credit and networking threatens any further growth attempts. For example, entrepreneurial networking could have promoted the growth of the fashion EE because, through networking, they could have shared exclusive information about trustworthy couriers and credible craftsmen. This could have mediated the market and human capital voids, yet they rather described information-sharing as “classified business-secrets” as HSH puts it. However, the entrepreneurs rather described information-sharing as classified business secrets.

Also, accessing credit from the fashion incubators could have further helped the scale-up of their businesses thus reducing the meso impact of that impacted their firm scale-up. This is despite their reliance on family and friends as legitimate sources of funding in the initial phases of their business, yet, still, the fashion entrepreneurs stated that the financial challenge remains their main bottleneck in expanding their own business. Therefore, even when fashion entrepreneurs employ social capital, it is still not enough to support the growth of their businesses.

Their resistance to credit hampers their opportunities to hire personnel and open new branches in Dubai for example. Indeed, if fashion entrepreneurs were aware of how their resistance to credit and networking hampers their ecosystem growth, the fashion EE would have grown and developed rather than being nascent. However, interestingly, similar to their digital counterparts, the fashion entrepreneurs were fuelled by passion and resilience that made them refuse to quit irrespective of the numerous voids and the emotional burnout they exhibited. Those findings are represented in Figures 5.5 and 5.6 which illustrate the impact of the voids on the aggregate respective ecosystems. Finally, figure 5.7 illustrates the growth cycles of the digital and fashion ecosystems.

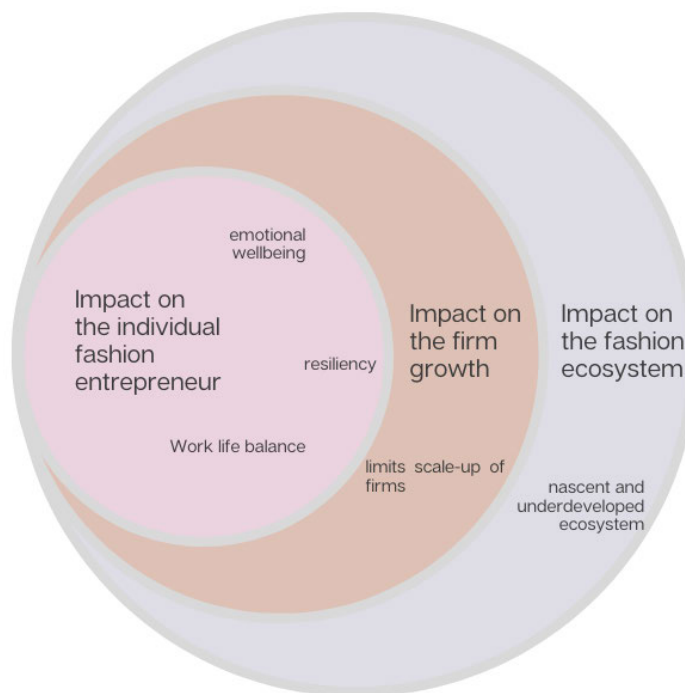


Figure 5.6: The three-tier impact on the fashion entrepreneurial ecosystem

Source: Author

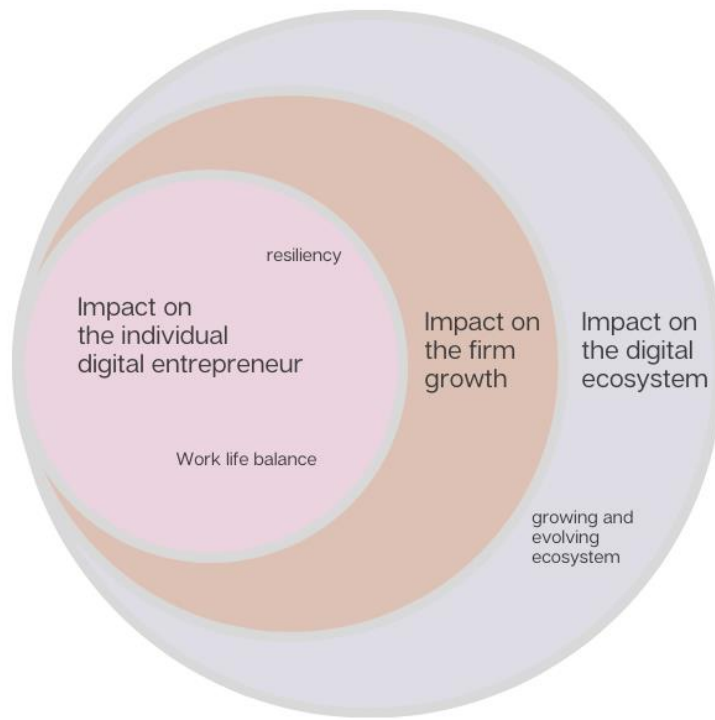


Figure 5.5: The three-tier impact on the digital entrepreneurial ecosystem

Source: Author

Egyptian Digital and Fashion EEs

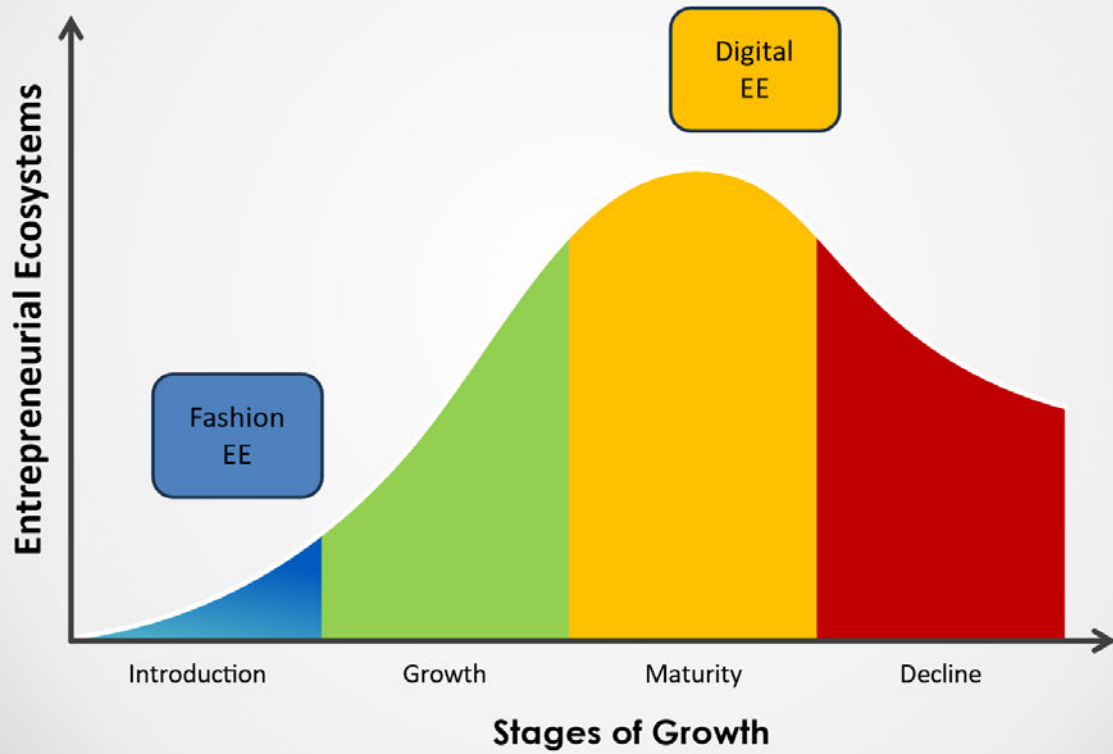


Figure 5.7: The stages of growth of the digital and the fashion ecosystems

Source: Author

5.5) Chapter Summary:

This chapter analyses the research findings of digital to-fashion ecosystems with each other and with the literature review on the topic (Brown & Mason, 2017; Mason & Brown, 2014; Alvedalen & Boschma, 2017; Spigel & Harrison, 2018; Stam, 2015; Harima et al, 2021; Thai et al, 2023; Cho et al, 2022; Wurth et al, 2022; Maroufkhani et al, 2018; Cao & Shi, 2021; De Brito & Leitao, 2021; Purbasari et al, 2019; Spigel, 2016).

The thesis primary research question is *What are the characterisations of the digital and fashion EEs in the context of human capital, financial capital, and market institutional voids?* Primary findings suggest two industry-based ecosystems are operating separately in Egypt. Data findings also suggest that the digital ecosystem is operating strongly and is at its stages of growth cycles to maturity compared to an embryonic fashion ecosystem. The first research question of 1) *What are the characterisations of digital and fashion human capital, financial capital, and market voids?* covers gaps in the literature regarding questions of *Which void precedes which. Are both ecosystems operating equally in their voids? Are both voids equal in terms of their severity and constituents? Which element is more prominent for effective ecosystem operation?* and *Which one that its absence impacts the functionality of the whole ecosystem.*

The digital EE is growing and is at its maturity stages led by policy support of 'Digital Egypt' and an active sector of incubators and accelerators that offer funding and business education to digital entrepreneurs. Moreover, digital entrepreneurs are playing an active role in the growth of their ecosystem by participating in both business retreats and joining online communities that aid in the free flow of business-related information.

Those elements furnish a supportive environment and offer resources that contribute to the growth of the digital ecosystem. Indeed, this finding of the growth of the digital ecosystem, is surprising and unexpected, because as Chapter Two detailed, literature (Baumol, 1996; Coduras et al, 2018; Dijk, 2018; Ge et al, 2019; Liedong et al, 2020; Luiz et al, 2021; Samadi, 2018; Narooz & Child, 2017) consistently framed emerging economies to be having a shortage in resources as direct impact of their weak institutional frameworks.

For the only human capital void in their ecosystem, the digital entrepreneurs are successfully relying on their efforts to mediate its void and interestingly, only two of the sample viewed those challenges in a negative light while the majority perceived them in a positive light. On the other hand, reasons for the weakness of the fashion EE result from the *sanayee* performance, lack of placement agencies, absence of governmental intervention, and poor courier service. However, another main reason for the weakness and nascency of the fashion ecosystem stems from the fashion entrepreneurs themselves.

The fashion entrepreneurs resisted any networking activities due to the competition rife in their industry and a culture that infringed property rights amongst the craftsmen. In their research on the life cycle of EEs, Colombelli (2019) argued that an ecosystem does not transition from the birth stage unless the dense horizontal and vertical interactions between its agents are strengthened and maintained. This is not the case for the fashion EE that is having its growth attempts threatened.

Moreover, the fashion entrepreneurs resisted any active attempts to expand their businesses by relying on the incubators in their ecosystem, unlike the vast majority of the digital entrepreneurs who resorted to incubator funding. Comparatively, the fashion entrepreneurs preferred to rely on social capital for emotional support and leniency in debt repayment that this approach offers, yet they still stated that frequent financial shortage is the main impediment to their firm growth. Indeed, accessing credit from the fashion incubators could have further helped the scale-up of their businesses thus reducing the meso impact of the firm scale-up and expansion. Also, networking could have perhaps mediated the human capital void by sharing information on trustworthy and competent craftsmen. This is despite their reliance on family and friends as legitimate sources of funding in the initial phases of their business, yet, still, the fashion entrepreneurs stated that the financial challenge remains their main bottleneck in expanding their own business.

The second research question of *How does social capital play a role in mediating the impact of the voids?* covers gaps in the literature regarding questions of *how local entrepreneurs systematically allocate social capital to fill their specific financial, human, and market voids. How do entrepreneurs as active agents seek to grow their businesses?* Research findings propose that both entrepreneurs varied in terms of employing social capital to mediate their respective voids. Data findings offer a two-fold perspective on social capital in business; an industry-based perspective on social capital for recruitment and a gender-based perspective on social capital for funding access. On the one hand, the cultural reasons for ‘*assham*’ or falsified high expectations justified the digital entrepreneurs’ resistance to social capital in recruitment.

However, fashion entrepreneurs relied on recruiting from their family and friends because of the joy the process offers. Moreover, the female entrepreneurs of both the digital and fashion ecosystems had emotional support which acted as an antecedent for their parental financial support, comparatively, the lack of emotional support for the male entrepreneurs impacted any financial access. However, the approach of self-reliance was a common approach employed by both entrepreneurs to mediate and fill their respective voids yet with different manifestations. The digital entrepreneurs relied on the approach of self-education followed by mentorship to mediate the scarcity and/or the pricey digital talent. Also, they performed the belated duties of their workforce themselves to ensure projects were delivered on time. Self-reliance for the fashion entrepreneurs manifested in four mechanisms of micromanagement, exhibiting masculine behaviour, having in-house workshops and/or engaging in multiple rounds of trial and error to cope with the *sanayee* lack of adherence to quality, their lack of commitment to deadlines, their bias, and the underperforming courier service respectively.

The third research question of *What is the impact of the voids on the EEs?* Covers gaps in the literature regarding questions of *What is the impact of the process of voids or domains on ecosystems? What is the cause-and-effect impact of voids on the process of EEs?* As stated, data findings proposed a three-tier impact of the voids on both ecosystems. Both ecosystems shared only one impact of work/life imbalance on the micro-individual level. However, the fashion ecosystem voids exceeded that of the digital EE which contributed to the nascence of this ecosystem.

The fashion entrepreneurs had specific emotional well-being (micro) and firm (meso) tiers of impact which were absent from the digital ecosystem. They also perceived the challenges of their ecosystem in a more negative light that compromised their emotional well-being. After comparing and contrasting fashion to digital ecosystems, chapter six will conclude the thesis by discussing the theoretical and empirical contribution of those findings to the literature of EEs, institutional voids, and social capital in an attempt to deepen our understanding of the three theories at hand.

Chapter Six: Conclusion

6.1) Introduction:

This thesis aims to study the processes of ecosystems. By process of an ecosystem, the EEs literature refers to the practices undertaken by digital and fashion entrepreneurs when they draw on local resources to produce high-impact entrepreneurship in the context of institutional voids. As such, the objective of this thesis *is to study how local entrepreneurs in regions of institutional voids draw on their regional resources to explore, evaluate, and exploit the opportunities to scale up firms.*

To support this research objective, this thesis welded the theories of entrepreneurial ecosystems (EEs), institutional voids (IV), and social capital (SC). The first theory of the EEs outlined the actors and factors that produce entrepreneurship of impact. As such, the EEs furnished the conditions for a multiplier impact of business growth, innovation, productivity, sales, and job opportunities. The significance of EEs is that they deal with high-impact entrepreneurship (HIE) proxied by high-growth firms (HGFs) because HIE spurs regional GDP per capita, growth, and rates of labour productivity (Naude, 2011; Van Praag & Versloot, 2007). For the specific context of EMs, the phenomena of the EEs contribute to the alleviation of poverty through job creation, as well as the structural transformation of traditional factor/agricultural and efficiency/industrial-driven economies into more advanced innovation/knowledge-based economies (Aminova et al, 2020; Hamdan et al, 2022; Naude, 2010).

Nevertheless, despite the prominence of EMs in the global economy and their contribution to 38% of the global GDP in 2010, still studies of entrepreneurship in EMs are overlooked compared to the literature fixation on EEs in developed contexts. This gap then lends credence to the objective of this thesis of understanding the behavioural activities of local entrepreneurs and their allocation of resources in the context of institutional voids to produce entrepreneurship of impact.

The second theory of IV is employed to describe the context of EMs because IV theory believes that EMs have voids, not vacuums, that are full of rich opportunities awaiting exploration by local entrepreneurs. As such, it focuses on how local resilient, innovative, and proactive entrepreneurs adopt strategic actions to workaround their regional voids. The final theory is that of social capital and its value is to understand how entrepreneurs rely on their embeddedness within their social capital to extract talent, funding, and exclusive information for the specific impact of filling human capital, financial capital, and market voids.

To understand how entrepreneurs access resources to produce entrepreneurship of impact EEs in EMs, the general research questions of this thesis *1) What are the characterisations of digital compared to fashion human capital, financial capital, and market voids in Egypt? 2) What role does social capital (SC) play in mediating the voids for both ecosystems? and 3) What is the impact of the institutional voids on the effective functioning of the digital and fashion EEs?*

The theoretical framework suggested that entrepreneurs rely on their embeddedness within their social network to be supplied with qualified talent through the approaches of 1) direct recruitment from family and friends, 2) endorsement from an investor or current employer, or 3) circulation about a job advertisement. Second, entrepreneurs rely on their embeddedness within their social network to be supplied with financial capital through approaches of 1) screening borrowers to access credit from a circle of acquaintances and/or through 2) passing on parental privileges such as cash or other physical assets. Finally, entrepreneurs rely on their embeddedness in social networks to access exclusive and private information through the approach of sharing exclusive market information by socialization. Those six approaches will then compensate for imperfect markets, the dearth of financial institutions, the scarcity of talent, and the lack of placement agencies to ensure the growth of their firms and eventually the seamless functioning of EEs.

Chapter Three discussed that the research method adopted was the qualitative research method. It is usually employed when investigations are exploratory, thus, going beyond the basics of 'what' and 'how' to delve deeper into the inquisitive 'why'. The researcher interviewed a total of 41 entrepreneurs owning their SMEs in Egypt divided between 31 digital entrepreneurs and 10 fashion entrepreneurs. The digital and fashion EEs are chosen as contexts of investigation to address the EEs literature gap of the narrow focus of high-technology sectors and balance the overrepresentation of HGFs, in service-based industries of high technology with other creative industries such as fashion (Brydges and Pugh, 2021; Wruth et al, 2022; Loots et al, 2021; Maroufkhani et al, 2018).

Second, Egypt was chosen as a region of investigation because, in a country with a history heavily rooted in socialism (Crabbs, 1975), entrepreneurship has never been an alluring career path amongst the revolutionary youth of the post the 2011 era. Interview questions were open-ended and semi-structured to encourage the entrepreneurs to improvise to arrive at complex, thick, and rich data.

Lines of inquiry included questions of the characterisation of financial, human capital, and market voids, as well as those relevant to social capital as a mechanism for access, utilisation, or resistance. The qualitative analytic treatment was named as 4Cs of coding, categorising, and conceptualising before concluding, so data was condensed then categorised into themes followed by pattern identification before concluding. The general findings of this thesis suggested that two industry-based ecosystems are operating in Egypt because their variances were more than their commonalities in terms of the constituents of the voids, the role employed by social capital, as well as the impact of the voids on the growth stages of both ecosystems. Findings proposed that the fashion and digital ecosystems are operating separately and are at different growth stages in Egypt. The digital EE is growing and is at its maturity stages while the fashion EE is nascent.

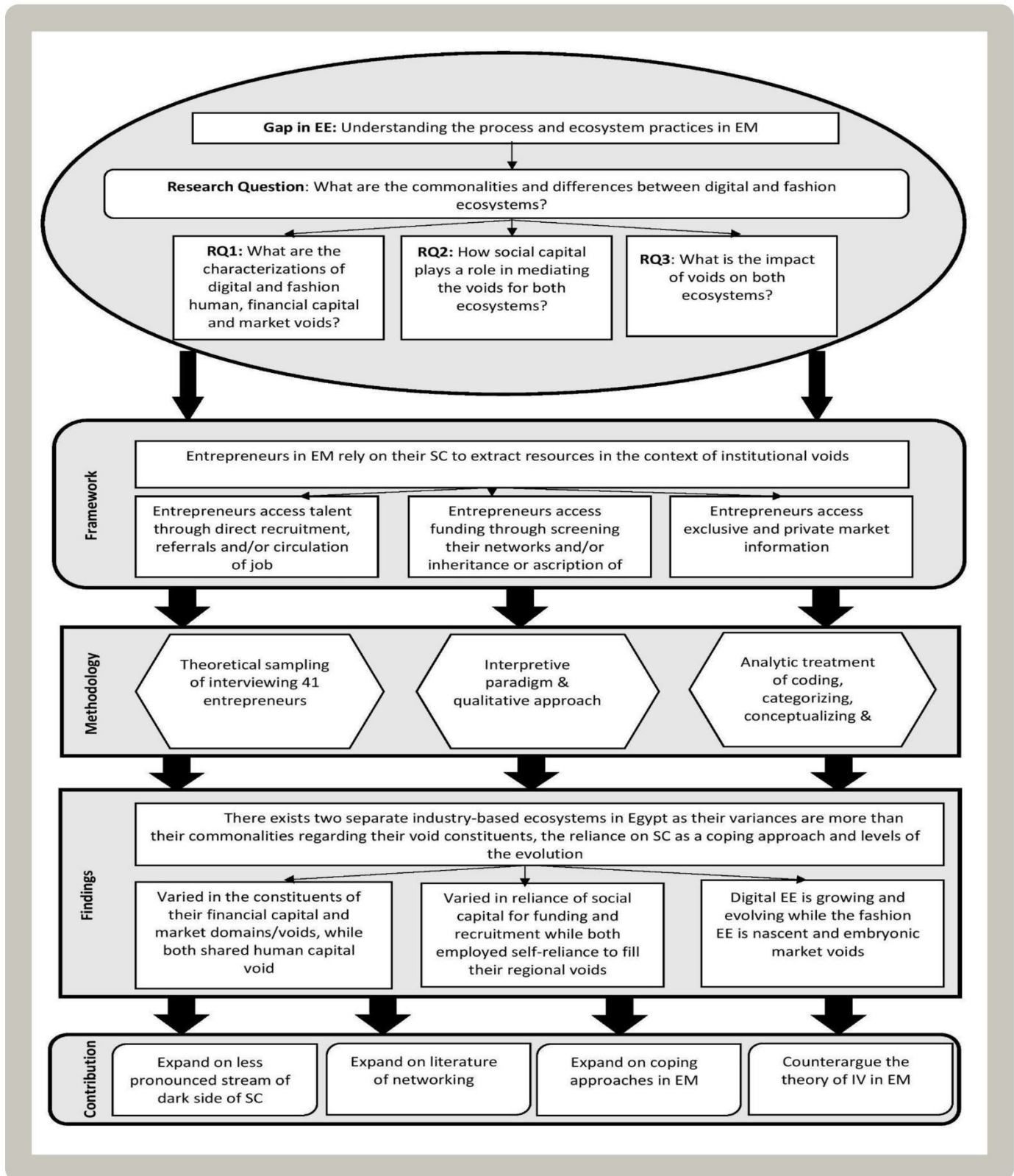
On the one hand, the digital EE is led by policy support of 'Digital Egypt' and an active sector of incubators and accelerators that offer funding and business education to digital entrepreneurs, as well as active networking attempts by the digital entrepreneurs. On the other hand, the fashion EE has poor *sanayee* performance, absent placement agencies, absent governmental intervention, and poor courier service reasons, as well as fashion entrepreneurs

resistance to external credit and networking. Findings proposed as well, industry-based, and gendered perspectives to social capital because the female entrepreneurs of both ecosystems relied on social capital for funding whereas both males and females of the digital sector resisted social capital in recruitment for the cultural reason of '*assham*'.

Indeed, the theoretical framework contributed to the literature by counterarguing the *resourceful domain-based* framework of EE and contesting its findings in an institutional void-*based framework*. Moreover, thesis findings contributed by reflecting on a less studied stream of the dark side of social capital in business, as well as, expanding on both; the literature of networking and the coping approaches of voids because self-reliance was added to the literature as a prominent approach of filling voids alongside social capital. Figure 6.1 displays the flow chart of this thesis as it starts with the gap in the literature, research questions, and then the theoretical framework, followed by data collection, the findings, and their general contribution to the literature.

This chapter has five sections, it starts by displaying the integrative framework and its theoretical implications, then displaying the thesis findings and their empirical implications. Section three discusses the policy, culture, and practical implications for each ecosystem, followed by the limitations of this thesis. The chapter ends by offering recommendations for future research.

Figure 6.1: The flow chart of the thesis



Source: Author

6.2) Theoretical Contributions:

Within the overarching aim of investigating the processes of EEs in emerging markets, this thesis sought to explore the Egyptian ecosystem practices of how local digital and fashion entrepreneurs in Egypt drew on their local resources to fill their regional voids and eventually produce entrepreneurship of impact. The theoretical framework of this thesis implies that it offers *general* and *specific* contributions to the literature. The theoretical framework suggested that local entrepreneurs utilised their embeddedness in social networks to extract exclusive resources of talent, funding, and information to fill their human capital, financial capital, and market voids. Theory-based research offers prominent contributions to our understanding of complex entrepreneurial phenomena (Zahra, 2007) such as how local entrepreneurs fill their regional gaps. This framework is a leading attempt to weld the three theories of the EEs, IV, and SC. A general implication of this integrative approach is offering a multi-dimensional perspective of understanding the complex dynamics of the EEs. Accordingly, offering a holistic and multi-dimensional perspective to EEs will eventually enrich, expand, and augment our understanding of each of the three theories under study.

Another specific contribution to the EEs theory is that the framework contextualised the studies on EEs theory in understudied regions of investigation such as that of EMs. The contextualisation of the EEs in EMs offers novel approaches to the original framework. Contextualisation involves studying the serendipity of the origins, functionality, and forms of variables that would eventually impact a theory outcome.

Comparatively, a lack of contextualisation of entrepreneurship theories happens when theorists close themselves from seeing the multiplicity of entrepreneurship perspectives and rather ascribe to an in-stone singularity of frameworks (Baker & Welter, 2021). A possible reason for the lack of contextualisation of the EEs could be due to considering certain areas of entrepreneurship research uninteresting (Welter et al, 2017) or perhaps considering disparaged areas of research the other (Welter et al, 2017). The result of such an understudy of various contexts is having only one facet of a complex and rich phenomenon. This could lead to a skewed interpretation of the performance of high-growth firms in EMs. It could also narrow our understanding of the expansiveness of the entrepreneurship phenomenon globally (Welter et al, 2017). As such, by challenging the *resourceful-domain-based* framework of the EEs theory in comparative contexts of *institutional voids*, the framework is merited for offering alternative explanations, modifications, and extensions to EEs theory.

A fourth contribution of the theoretical framework is employing the theory of institutional voids to describe the contexts of EMs rather than the classic institutional theory. The former balances our understanding of the operationalisation of entrepreneurship practices in EMs. The nascent institutional voids theory offers both; *a descriptive* and an *analytical* approach to EMs. Not only does this theory describe EMs as being underperforming, but it also seeks to investigate how entrepreneurs operating in those contexts cope with their challenges to grow their businesses.

The keyword is how entrepreneurs in EMs 'workaround' the challenges of their environments to produce entrepreneurship of impact. This theory goes beyond the pessimistic depiction of EMs as poor and less developed in the literature on classic institutional theory by offering alternate opportunities employed and created by resilient and savvy entrepreneurs.

A final contribution of the theoretical framework is that it deepens our understanding of SC theory by corresponding to the tautological gap of the literature on the theory. Fine (2002) described literature on social capital to be fundamentally flawed and lacking systematic investigation. Literature on social capital untangles the resources from the outcome of their usage.

This thesis framework remedied this specific gap by offering a process-based approach to social capital theory. The framework unravelled the resources *accessed* from social capital into specific talent, funding, and exclusive information. It also described *mechanisms* or approaches of accessing those resources with an *impact* of improving the functionality of EEs. Therefore, the framework offered an enhanced understanding of the social capital theory when a model of antecedents, approaches of utilisation, and outputs are delineated. Table 6.1 summarises the contributions of the theoretical framework for the three theories combined, as well as, for each respective theory.

Table 6.1: The theoretical contribution of the integrative framework

Theoretical Framework	Theory addressed	Contribution to literature
Local entrepreneurs utilise their social capital to access talent, funding, and exclusive information to fill human capital, financial, and market voids.	Integrative approach of combining EE, institutional voids, and social capital within a theoretical framework	-Offers novel contributions to literature -Contests findings in other contextual settings -Enriches our understanding of the theories
	Entrepreneurial ecosystem	-Challenges the framework of <i>resourcefulness of domains</i> to offer an alternative framework of processes in the context of EMs of <i>resource-less voids</i> -Expanded our understanding of the narrow singular framework of the theory. -Examined the role of local for-profit entrepreneurs in the mobilisation of the EEs processes.
	Institutional void	-Leads in employing the nascent theory to describe the context of emerging markets -Leads in describing the impact of human capital, financial capital, and market voids on the EEs phenomena.
	Social capital	-Addresses the tautological problem of social capital theory -Untangles the confusion between the availability of resources within a network from the approaches of their utilisation -Offers an explanation of the process of resource access in terms of antecedents, approaches and impact on the EEs processes.

Source: Author

6.3) Empirical contributions:

This thesis offers seven empirical contributions to the literature by both; expanding on or counterarguing the extant literature suggestions. Findings relating to the first research question offered three contributions by counterarguing literature on EEs, whereas that of the second and the third research questions expanded on the literature of the three theories under study. The first research question of this thesis was *What are the constituents of the digital and fashion EEs regarding the financial capital, human capital, and market voids?* This question was crafted because the literature remains silent in understanding *Which void precedes which?* and *Whether both ecosystems are operating equally in their voids.* This question implies that it assumes that EEs are operating in institutional voids and that those voids are equal in importance. Research findings revealed, surprisingly, that digital EE is led by two resourceful domains rather than any voids. Evidence of the growth of the digital businesses is that eleven of the businesses stated their valuation between \$1-5 million and three stated that their valuation exceeded \$ 5 million since their inception after 2011.

The contribution of this finding to the literature is that it *contradicted* the mainstream literature on institutional theory and entrepreneurship in the context of EMs. The literature has inscribed in stone the belief that EMs have predominant poor and weak institutional voids (Audretsch et al, 2021; North, 1990; Aparicio et al, 2016; Baumol, 1990; Aidis et al, 2008; Khanna & Palpeu, 2010; Bosma et al, 2018; Urbano et al, 2020) that impact their businesses' growth and leads to unproductive entrepreneurship.

This thesis finding stands in stark contrast to the literature by arguing that ecosystems could be developing, flourishing, and growing in the context of voids. As an example, rather than the literature suggestion that there exists a scarcity of capitalists and investors in EMs (Estrin et al, 2019; Cao and Shi, 2021), comparatively, twenty-seven of the digital entrepreneurs in Egypt relied on funding from incubators and accelerators of Endure, Endeavor, MINT incubator, Falak, flat6labs and Egylab alongside the leading university incubation of the American University in Cairo (AUC) V-Lab for to access credit, invest in equipment and recruitment of talent.

In the same vein, the finding of the intervention of 'Digital Egypt' to support digital start-ups acted as another contribution to the literature that counterargues the weakness or lack of role of policy in EMs (Mair & Marti, 2009; Biru et al, 2021; Peng, 2003). Third, digital entrepreneurs are actively networking through both online Facebook groups and through attending business camps to share business-related information. The finding of online networking acts as another contribution to the literature on networking and entrepreneurship. It expanded on the traditional means of communication that occurred through face-to-face interactions to share information that has been a staple in the literature on the economics of Marshallian geographical agglomeration (Audretsch & Feldman, 2004; Romer, 1986; Glaeser *et al*, 1992; Porter, 1990; Van Soest *et al*, 2006; Gertler, 2003; Coleman, 1988).

Moreover, two contributions were made whilst seeking to identify how local entrepreneurs fill their regional voids. The second research question was *What role does social capital play in mediating the voids for both ecosystems?* This question was crafted as literature remains silent in answering questions of *How do entrepreneurs allocate resources for the operation of their HGFs. How is social capital employed as a resource to fill regional voids?* This question addresses the gap of both the EEs processes, as well as the social capital tautological gap. Research findings revealed the fact that there has been a reliance on social capital for fashion entrepreneurs, as well as the female entrepreneurs of the digital sector for funding access.

However, research findings revealed that there is strong resistance to social capital from both sexes of the digital ecosystem for recruitment due to the cultural reason of '*assham*' or falsified high expectations. This happened because employees abused the conflation of personal and professional spheres to engage in workplace deviance such as avoiding work commitments and asking for elongated holidays. Indeed, this counts as a fourth finding that contributes to the less pronounced literature on the dark side of business. Although there have been recent attempts to investigate the dark side of social capital, yet the cultural reason of '*assham*' expanded on the dark side of social capital compared to other firm-based reasons outlined by the research of Edelman et al (2004) and Strindlund et al (2021) in the contexts of UK and Sweden respectively. Moreover, a fifth contribution that expanded on the theory of IV and the coping approaches of local entrepreneurs in EMs was the approach of self-reliance.

Indeed, the role of social capital in EMs has been well documented in the papers of Alakaleek and Cooper (2018), Aldrich et al, (1989), Cromeey and Birely (1992), Konrad (2015), Sarfaraz et al (2018) and Wang et al (2022). however, the alternative approach of self-reliance has been a leading contribution to this thesis. This is when both the digital and the fashion entrepreneurs identified that they rely on their efforts to perform the belated duties of their workforce, engage in self-education then mentorship to cover gaps of digital talent, micromanage the craftsmen work, or have in-house workshops and engage in multiple attempts of trial and error to mediate the void of the distributed channels for the fashion EEs. Also, two contributions expanded on the extant literature while seeking to understand the impact of the voids on the EEs process. This is as the question of *What is the impact of the voids on the EEs?* have been unanswered in the literature.

Research findings added a tier of the micro-impact of the EEs on the individual entrepreneur. This is as the entrepreneurs stated that self-reliance led to an impact on their own wellbeing and work-life balance. Extant literature on EEs addressed the impact of voids in emerging markets to hamper the growth of firms and lead to unproductive entrepreneurship (Audretsch et al, 2021; Baumol, 1996; Stam, 2015). In the same vein, research by Cosenz et al (2023) and Theodoraki and Messeghem (2017) added a foundational micro tier as the interactions between agents of an ecosystem and business incubator. However, although the EEs have the individual entrepreneur at their core, the literature did not discuss the impact of the process on the individual entrepreneur who allocates resources for his/her firm growth. Therefore, this thesis finding contributed to EEs theory by adding a framework of a multi-level impact having the entrepreneur as a micro foundational independent construct.

This interesting finding could also be considered as a counterargument to the literature on psychology of entrepreneurship that portrayed entrepreneurship impact in a negative mental wellbeing light (Spivack, 2020). Conversely, although there has been a negative impact on fashion entrepreneurs, their resiliency was evident. Moreover, challenges to their industry were the main reason behind their compromised well-being, not entrepreneurship as a career path as literature claimed. For example, the digital entrepreneurs perceived their EEs in a positive and favourable light with only two of the digital entrepreneurs considering the voids of their EEs as a challenge.

The final finding that contributed to the literature on EE was the existence of social bias and discrimination because digital EE is operating as closed-knit. This finding is a leading attempt to explore how biases and discrimination could hamper the growth of an EE and dominate the networking between parties of an EE. This is as findings revealed that digital EE networking is guided by social class domination because it supports superior individuals who are wealthier, fluent English speakers, and internationally educated. Table 6.2 summarises the empirical contributions of this thesis based on each respective research questions.

Table 6.2: The empirical contributions of this research findings

Research Question	Key findings	Contribution to literature
RQ1: What are the characterisations of digital and fashion human capital, financial capital, and market voids in Egypt?	-The digital EE had only one human capital void of lack of commitment to details while surprisingly emerging financial capital and market resourceful-domains. On the other hand, the fashion EE has three human capital, financial capital and market institutional voids -This suggests that differences were more than commonalities	- Expanding on entrepreneurship networking literature to include the role of social media groups in connecting entrepreneurs in emerging markets -Findings contradict literature on EM that characterize emerging financial and market aspects of institutional voids. This is as the digital ecosystem is growing and at its maturity stages led by policy intervention, networking, and a mature financial resourceful domain.
RQ2: What role does social capital (SC) play in mediating the voids for both ecosystems?	-Findings propose an industry perspective to social capital for recruitment for the cultural reasons of <i>assham</i> and the need to separate personal from professional spheres. -Self-reliance was identified as a common coping approach to mediate their respective voids through self-learning, mentorship, performing belated duties themselves, micromanaging, having in-house workshops, exhibiting masculine behaviour, and engaging in trial and error.	-Findings contributed to the less pronounced stream of research highlighting the dark side of social capital in business for cultural reasons. -Findings expanded on coping approaches to include self-reliance alongside social capital in emerging markets.

RQ3: What is the impact of the institutional voids on the effective functioning of the digital and fashion EEs?	-Both EEs had an impact on micro, meso, and macro levels. Both ecosystems shared a common impact on the micro-individual level of the entrepreneur	-Expanded on the impact of ecosystems by adding a micro tier of the individual entrepreneur in terms of emotional well-being and work/life balance in emerging markets. -Leading attempt in highlighting the role of social discrimination as a threat to the growth of an EE
	-Both entrepreneurs perceived their challenges in a positive light and chose not to quit fuelled by their passion for entrepreneurship and their businesses	
	-Growing digital EE but still dominated by social bias	

Source: Author

6.4) Implications and recommendations:

This section discusses the implications and recommendations of this thesis. Implications are divided into three sub-sections; policy, cultural, and practical implications, and are represented based on digital and fashion ecosystems.

6.4.1) Policy implications:

6.4.1.1) The digital entrepreneurial ecosystem:

Data findings revealed that the human capital voids were severe for both ecosystems. The collective reasons for the human capital void for both ecosystems were scarcity of digital talent, divide in quality of graduates, lack of commitment to deadlines, as well as *sanayee* bias and lack of adherence to quality standards.

Those challenges imply the need for an intervention to invest in the resourcefulness of Egyptian human capital. For the digital EE, its human capital voids necessitate governmental intervention to invest in upgrading the skills of digital talent. The digital entrepreneurs did not specify scarcity of talent to be in terms of technical skills, rather they defined it to be in terms of scarcity of leadership and critical thinking skills.

The government has embarked on a new educational strategy that derives its educational content from the likes of *Pearson*, *Britannica*, and *Discovery Education* (Mirshak, 2020).

Nevertheless, the enterprising spirit, initiative mindset, creativity, leadership, and critical thinking skills have not yet been addressed in any structural reform. Mainly, the Egyptian state education system is measured by the students' abilities to pass exams, retain information, and reach academic goals, rather than expressing emotion, creativity, and/or innovation which are prerequisites for navigating real and flexible business situations (Chia, 1996; Kirby & Ibrahim, 2011).

The government must be cognisant that the educational system requires a paradigmatic shift to reinforce the intellectual priorities of its graduates. This could be through incorporating activities that foster entrepreneurship imagination and through undergoing a radical change in the pedagogy or how the content is being delivered. The latter could be by investing in upgrading the skills of teachers and academics to stimulate student imagination, and creativity and develop their inquisitive mindset (Chia, 1996).

An example of this could be through partnering with independent bodies such as the British Higher Education Academy to offer accreditation to Egyptian teachers and academics so that they are armed with updated tools, resources, and methods of delivery. Upon such investment in mental aptitude, Egyptian graduates will be able to compete nationally and internationally in the digital labour market.

6.4.1.2) The fashion entrepreneurial ecosystem:

Similarly, findings carry three implications for the fashion ecosystem. Surprisingly, Egypt had its artwork industry and jewellery paraded at international museums but is suffering nationally from the growth of a promising sector. This industry preceded the digital one by thousands of years, but its ecosystem is nascent and led by the sole efforts of the fashion entrepreneurs.

The current state of the fashion ecosystem is disproportionate to how Ancient Egyptians adorned themselves with a variety of embellishments of jewellery, ornaments, and artwork. Indeed, the absence of governmental intervention and the entrepreneurs' business illiteracy are two areas that are worth addressing for fashion EE. Unlike the vision of 'Digital Egypt' that supports the growth of digital EE, the government is failing to recognize the economic value of the fashion sector. In the UK, the Department of Culture, Media and Sport (DCMS) report indicated that its creative industries created 1.9 million jobs in 2015 an increase of 3% from prior years (DSMC, 2016).

Therefore, supporting Egypt as a regional fashion hub will promote the country as a global soft cultural power, perhaps solve its endemic unemployment rates and raise the country's regional GDP. Although the rise in demand for fashion education is a promising indicator for a sector that has been dormant since the 1960s, yet without a strategic and cooperative top-down policy to support fashion businesses, the fashion EE will remain embryonic. This would require cooperation between the Ministry of Strategic Planning, the Fashion and Design Council, and the Ministry of Trade and Industry to empower this industry growth locally and internationally.

Another policy intervention is required to integrate entrepreneurship and business education into arts and design curricula. Indeed, the government educational system is still impacted by the educational legacy of the socialist era of the 1960s and has not fully embraced entrepreneurship in its curricula. In the socialist era, the main objective of education was to safeguard the values of the 1952 revolution by graduating farmers and engineers (Mirshak, 2020; Najjar, 1976) rather than business owners. This limited supply of entrepreneurship education is out of balance with the country's rise in demand for entrepreneurship. The country's ranking was raised to the 12th position from 43 countries based on the GEM report with 73% choosing entrepreneurship as a favourable career path (Abou Warda, 2015).

Perhaps to counteract this challenge, the government could offer dual degrees for arts and fashion schools to equip their graduates with business and entrepreneurship skills. Moreover, centres for entrepreneurship and university incubations should be inaugurated at faculties of arts and design to help them in their business initiation and growth.

Finally, a main reason for the weakness of the fashion EE was attributed to the Egyptian craftsmen's behaviour and work ethic. Indeed, Ancient Egyptian history is partly grateful to its highly sophisticated craftsmen who designed and produced various artifacts and embellished jewellery. Nowadays, the Egyptian craftsmen sector has 4 million workers, and it is the second largest sector in Egypt after the agriculture industry (Egyptian Street, 2019; Johnstone, 2018).

However, Egyptian craftsmanship is a marginalised sector of the society and they have not been included in any structural reformations to build their own capacities, upgrade their socio-economic conditions, and invest in their education. This could be a manifestation of the negligence of the overall artwork and design ecosystem, nevertheless, it led the fashion entrepreneurs to consider having their own in-house workshops to evade the craftsmen's poor performance and behaviour.

6.4.2) Cultural implications:

The challenges of both the fashion and the digital human capital voids carry a cultural implication regarding the personality of the Egyptian worker. The educational system cannot be lamented alone for the underperformance of human capital in Egypt because the socialisation process and parental upbringing do factor in fostering the culture of absent entrepreneurship mindset and initiation. Also, it is common in the region to have *Al-Zaim* or a leader figure who is usually unchallenged and put on a pedestal.

It is therefore argued that culture plays a role in the severity of the human capital voids for both ecosystems. In their paper, Sidani & Thornberry (2010) reflected on how the decline in the human capital in the region stretches back centuries earlier when the culture against innovation and creativity was the mainstream. The Arab region was once a vibrant society of openness, dynamics, and innovation in the medieval century; however, this process of change came to a halt with stagnation and hostility to innovation because Arabs became fearful of the Western influence of imperialism. As such, to safeguard religion and culture from foreign ideologies, many Muslim Arab scholars hitherto resorted to extreme conservatism. Subsequently, the gate of *ijtihad* or critical thinking has been tightly closed and Arab intellects were subsequently discouraged from relying on their thought processes in producing novel solutions to emerging issues. The outcome is that, to this day, Arabs confuse modernity as a process with its value as an output (Sidani & Thornberry, 2010).

Although the seeds of independence are being implanted by the revolutionary Egyptian youth themselves who are seeking a cultural paradigmatic shift, yet parents could help by reforming the Egyptian personality as well. This could be through nurturing their offspring, in their early formative years, the sense of independence, innovation, and critical thinking especially when the role of parenthood in creating enterprising mindsets and encouraging open, free, collaborative, and democratic communication have been well documented in research by Rachmawan et al (2015) and Soleimanof et al (2021). Indeed, a cultural revolution regarding parental nurturing is a necessary component parallel to the role of schools and universities in upgrading human capital in the region.

6.4.3) Practice implications:

6.4.3.1) The digital entrepreneurial ecosystem:

Research findings suggested that digital entrepreneurs are leading their own EEs growth and development. This is as they are engaging in self-led pursuits to amass entrepreneurship and business skills, active networking alongside, and performing the belated tasks of their own workforce to mediate the human capital void. However, the acts of bias and discrimination that are dominating their EEs and worse legitimising them could potentially threaten the sustainable growth of their EEs.

Such social bias unravels the deep class division in Egyptian society when the entrepreneurs reflect on how the EEs are monopolised by the upper-social class sector of the society who have English as their first language of communication and are wealthy. Indeed, the idea of the concentration of wealth and resources in certain social circles has been well documented in the literature on the dark side of social capital (Bourdieu, 1986). This is because the domination of what SBA called 'elitists' would lead to the closure of their EEs and could have negative outcomes on both the economy and the EEs themselves. For the economy, it would lead to the concentration of resources within the upper-class sector of the society and lead to the unequal distribution of power and capital, as well as envy and hostility (Portes, 2000; Bowles & Gintis, 2002).

Second, the closure of their EEs would impact the performance of the digital EE when they are resisting access to new ideas, skills, and capacities that exist beyond their circle. The only way to counteract this negative influence is to encourage the openness of the enclaved digital EE. This could be by organising physical meetings and events at state universities and more importantly at other geographical regions such as in the impoverished areas of Upper Egypt. Such openness will have the bilateral benefit of enriching and diversifying resources for those geographical regions, as well as, for the digital EE itself.

6.4.3.2) The fashion entrepreneurial ecosystem:

Fashion entrepreneurs are playing an active role in the underdevelopment of their ecosystem. This is because they lack awareness of the role of incubators in their businesses and are resisting networking attempts with other parties of their EE. Indeed, both voids carry a practical implication that could be mediated by the fashion entrepreneurs themselves only. They are required to engage in educational pursuits to master business and entrepreneurship skills as their digital counterparts do, however, this recommendation is challenged by the articulation of their ventures as artwork rather than a business *per se*.

Second, the fashion entrepreneurs exhibited resistance to networking due to the competition rife in their industry. This implies a radical shift in the mindset of fashion entrepreneurs to believe that networking is important in their EEs and for the growth of their businesses. For example, networking could help in accessing information on qualified couriers and qualified craftsmen which could mediate the market and human capital voids of

their industries. This could be through joining social media groups such as Rise-Up and attending events to share business information.

6.5) Research Limitations:

6.5.1) Limitations regarding data collection:

The main challenge of this research was the outbreak of Covid-19 which had a personal impact on the wellbeing of the researcher, as well as the process of data collection. Indeed, the data collection process took two years to complete. It took more than the time dedicated to the data analysis and the writing phase of the thesis; both taking around a year and a half. First, the only option for the interviews' conduction were either online or through the telephone. Second, some of the entrepreneurs who were initially contacted for the interview declined because of their wellbeing that impacted any propensity to engage in an interview.

Moreover, three of the digital entrepreneurs who were contacted declined an interview with no reason given while another promised an interview and has not gotten back in touch with me although multiple attempts for further contact have been undertaken by then. A fourth entrepreneur declined because he stated that he only gives interviews to institutions on the promise that his interview will be published in newspapers. He further ascertained that he never gives interviews to individual researchers. A second challenge was the absence of a database for fashion entrepreneurs. This challenge has been mediated for the digital sector because the success stories of their ventures are featured in many news media outlets and incubators which offer easy access to digital entrepreneurs in Egypt.

Comparatively, it is more challenging to gather data on fashion entrepreneurs in Egypt. The absence of a database, alongside the impact of Covid-19 compounded with the time limitations of doing a PhD, led to only interviewing a sample of 10 entrepreneurs.

6.5.2) Limitations regarding generalisability of findings:

Although the qualitative methodology is the most convenient method when seeking to investigate an uncharted landscape such as the processes of ecosystems, yet it carries limitations regarding the generalisability of its findings. Indeed, the advancements in computational technology facilitated the generalisability of quantitative research, yet, seeking to generalise the findings of qualitative research remains an illusion (Carminati, 2018). This is because usually the nature of qualitative research is concerned with the in-depth exploration of a phenomenon exhibited by a certain group or occurring within a contextual setting rather than the universality of findings and their applicability to other contexts (Leung, 2015). It is noteworthy to mention that the researcher undertook practical measurements to counteract this challenge by employing methods of triangulation and constant comparison as Chapter Three detailed. Nevertheless, the condition of the context-specificity of qualitative research negates the generalizability of this thesis's findings to other sectors of Egyptian society and other regions.

6.6) Promising areas for future research:

The findings of this thesis act as a seedbed for interesting and promising future areas of research. First, an area of research could be dedicated to exploring the innovative, technological, creative, and fashion ecosystems in Africa. For example, little is known about how fashion EE operates and what are its challenges and potential in African nations. Moreover, digital ecosystems in less developed factor or efficiency-driven economies, in general, are disparaged or overlooked compared to their valorisation in developed economies (Welter et al, 2017). This idea of such a dichotomous view of developed compared to less developed economies has been a staple in research on entrepreneurship (Acs et al, 2008; Porter et al, 2002). EMs subsequently have less interest in research studying their contexts due to in-stone inscribed literature arguing for the prevalence of their poor or weak institutional frameworks. However, by applying the IV theory, research on EMs could open the black box on how those regions are rich in opportunities in their resource-less environments.

Add to this area of research the fact that the digital EE is already operating strongly with sectors of Artificial Intelligence in the less developed economy of Egypt. In the same vein, the literature remains silent on studying the Egyptian craftsmen, their conditions, and their industry dynamics. Indeed, the Egyptian craftsmen are a sub-ecosystem of the fashion EE and they are geographically concentrated in locations in Egypt that as Khan El Khalili, Darb Ahmar, and Jews Alley, so it will be enlightening to investigate their perspective on the fashion EE, as well as, their sub-ecosystem.

This could be through undergoing ethnography to further understand the dynamics of such a sophisticated sector. However, a challenge would be to unpack their jargon and their culture because they mostly have little to no education. Second, research is required to investigate emerging markets from the perspective of the nascent institutional void theory. This is because the classic institution theory is still dominating research on entrepreneurship and research on developing economies, eventually offering a laundry list of challenges without understanding how those challenges are overcome.

IV theory offers a balanced and optimistic approach to emerging economies as it believes that the challenges of those markets are mediated by the innovative approaches and strategies of local entrepreneurs who work around their environments. For example, interesting questions could be *How are local entrepreneurs coping with their institutional challenges? In what way are they resilient in overcoming the hurdles of their environments? What are the innovative approaches they have adopted?* In the same vein, a third area of research could be dedicated to exploring the mental well-being of entrepreneurs in emerging markets as an impact of the weaknesses of their institutions.

An interlinked theme of research could be the resilience of entrepreneurs operating in less favourable business environments. A third interesting research area could address the dark side of social capital. Indeed, the mainstream literature on the dark side of SC addressed its negative impact on firms, however, the negative cultural impact of networking remains an understudied area of research that is worth attention.

For example, questions such as; *What is the impact of class division on society? Is there societal envy and hostility outside the enclaved network? How does it impact the dynamics of an ecosystem?* could offer promising and robust findings that augment our understanding of social capital.

Personal reflections on the findings: The researcher's view:

I purposely chose the institutional voids theory to give credit to the digital and fashion entrepreneurs operating in Egypt. I wanted to understand how they cope with their regional challenges and choose not to quit. They could have chosen to operate in a multinational company that pays a huge sum or choose to immigrate to have their businesses elsewhere. One of them told me "I thrive on challenges and when everything is easy, I get bored".

The digital and the fashion entrepreneurs are very inspirational people who choose to thrive not just survive in a very challenging business climate. For the digital ecosystem, the entrepreneurs share critical information on business operations *for free*. Once you have access to the online Facebook group of RiseUp, which has no stringent requirement for access and possibly you will join by just asking to join, you will have access to "Ali Baba doorway" information for free. Lots will share information on how to code and even how to have your demo website. Try to type, "How can I....?" anything and you will have the answer instantly. One of the interviewed entrepreneurs is recently sharing for free on his YouTube channel the tools used to have your website with the help of AI to make 10K dollars a month? That information could cost you thousands but their mindset is that of a communion spirit of sharing perhaps because Egyptians are "emotional people" or as one of them said "it is our Egyptian culture of sharing

Second, I was personally inspired by how they spend sleepless nights performing the belated work of their workforce by themselves. They follow a strict sleeping schedule of only 6 hours “afraid to miss what might happen if they prolonged their sleep” as one mentioned. Also, I do not think I will forget how one of them was laughing whilst explaining how he lost a German funding opportunity because his interview was online and abruptly the lights went out!

Reflecting on this specific case, we Egyptians have a way of laughing at whatever life throws at us, and it throws a lot; wars, poverty, terrorism, etc, but we have an ironic, Kafkaesque dark humour that defines our culture. The joke will make you smile for both; its wit and pity. This entrepreneur could have cried and cursed the country while saying how he *lost*, but he chose to laugh it off and smile like nothing happened. Yet, he is still pursuing other opportunities with unwavering will and determination to succeed and make millions in a very dispiriting environment and he did not quit.

For females, operating in a macho culture is a major challenge. I was shocked to know that they were witnessing emotional abuse through gaslighting. Also, the fact that courier delivery men rob them of their financial entitlements is another shocking event. Perhaps the reason is that women are not taken seriously in business. However, the fact that they chose not to quit despite their very young age is a matter that made me admire their resilience.

For the whole 41 entrepreneurs, their resilience manifests in both; relying on their efforts to fill their regional voids and choosing not to quit despite the immense challenges for the fashion ecosystem in particular. Moreover, passion is the main engine behind their unwavering will to succeed. This particular lesson inspired me to resume writing the thesis despite the immense existential challenges I had. For me and the engaging reader, this thesis is not only an academic pursuit but a lesson in personal growth and self-development. It teaches us how to cope with our life voids with passion, a nice smile, and a sense of humour choosing not to quit but choosing to thrive out of it. I will never forget how one of the entrepreneurs kept angrily cursing the country 6 times during the interview, yet, he still operates in Egypt, makes millions, and is featured in Egyptian newspapers.

Again, I credit those entrepreneurs for inspiring me not to quit despite undergoing minor corrections in the midst of the summer war 2024. I am beyond grateful to them.

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Appendices

Appendix 1: Photos of the artwork of the entrepreneurs and the craftsmen



Egyptians always adorned themselves with gold embellishments



A photo of the Jewish alley in Egypt; a concentration of Egyptian craftsmen and their workshops. The alley is called "Jewish alley" known as "*haaret el yahood*" named after the concentration of Egyptian Jews in the area before they abandoned their workshops and immigrated to Israel. Their story was mentioned to me after the entrepreneur WSH



One of the rings designed by an entrepreneur interviewed. Egyptians are peasants not Arabs, so the entrepreneur honoured the peasantry heritage inspired by the Egyptian village landscape



Another concentration of Egyptian jewellery in Egypt is in the iconic “Khan el khaliliy” in the downtown Hussain in Egypt. Those areas could be called “souq” or “Khan”



Kris Jenner a member of the Kardashian clan wearing Okhtein bag; a national brand collaborating with Balmain



Dior runway held at the historic Egyptian pyramids, Egyptian Fashion week 2022⁴¹

⁴¹ Clark, (2022), <https://www.gq-magazine.co.uk/fashion/article/dior-mens-fall-2023-show-egypt>



A photo of an Egyptian sanayee or craftsmen welding jewellery

Appendix 2: The characteristics of the digital entrepreneurs

(initials have been changed to maintain anonymity)

Initials	Age	Specialisation	Sex	No of employees (size of HGFs)	Sales Turnover
MS	40s	Software and business services	Male	less than 10	500,000EGP
NA	30s	Business services and software design	Male	20 +	6M
2AA	20s	Software business services	Male	20+	2M
AM	40s	Software business services	Male	10+	500,000EGP
DG	20s	Digital marketing and advertising	Male	10+	500,000 EGP
OMA	40s	AI & Digital Marketing & Business services	Male	20+	500,000 EGP
HA	30s	Software business services	Male	50+	10M
MO	20s	Fintech and digital payments	Male	Less than 10	1M
DA	30s	Augmented reality and software 3D design	Male	Less than 20	500,000 +
SA	20s	Online educational platform	Male	20	500,000M
FZ	20s	Software services for business	Female	30	500,000M

2NN	30s	Digital platform recruitment services	Female	Less than 10	500,000M
MA	30s	Software business services	Male	Less than 20	1.5M\$
YI	20s	Software business services	Male	Less than 50	N/A
KM	30s	Software business services	Male	30	2M
FAA	20s	Software business services in circular economy	Male	30	N/A
MBA	30s	Software business services and consultancy	Male	20	2.5M
KOM	40s	E-marketing and digital agency	Male	40	1M
AE	30s	Software online business services	Male	Less than 40	N/A
BA	20s	Fin technology and digital payments	Male	20	200,000
HA	30s	Software services for psychotherapy	Male	40	5M
IA	20s	Software services for businesses	Male	Less than 10	N/A
KHS	20s	e-commerce	Male	Less than 10	1\$M
MO	30s	Artificial intelligence	Male	Less than 40	42\$M
SA	20S	Digital health care services	Male	Less than 20	4M\$
RM	40s	Software	Male	10	4M\$

		consultancy and investments			
HSA	20s	software business services	Male	Less than 10	5M\$
DN	20s	Software educational platform	Female	10	100-640,000M\$
HS	30s	Software services to business	Male	Less than 30	5M\$
SBA	20s	Fin technology B2B	Male	10	N/A
SIA	30s	Software services to business	Male	10	N/A

Appendix 3: characteristics of the fashion entrepreneurs

(initials have been changed to maintain anonymity)

Initials	Age	Specialisation	Sex	No. of employees	Turnover
SHH	40s	clothing	female	Less than 10	N/A due to business illiteracy of fashion entrepreneurs
WX	20s	jewellery	female	Less than 10	
IY	20s	jewellery	female	Less than 10	
BN	20s	jewellery	female	Less than 10	
ZS	40s	jewellery	female	Less than 10	
WHS	50s	jewellery	female	Less than 10	
JR	40s	jewellery	female	Less than 10	
GD	20s	clothing	female	Less than 10	
ES	30s	jewellery	female	Less than 10	
BM	20s	jewellery	female	Less than 10	

Appendix 4: Interview questions for fashion entrepreneurs at phase one of data collection

Background Information:

Could you tell me more about your company? How did you start it?

Why did you choose this creative industry? What was your motivation

Can you give me information about number of the employees? Approximate yearly sales turnover?

Your age & your educational background?

Do you believe there is a network of ventures or angels who support your sector only? Focus on its growth for exportation?

Have you relied on social capital for office facilities, supplies, tables, location, etc

Human Capital Domain:

How do you hire your technical labour? حرفيين او عمال فنيين

Do you have any team for quality control?

Have you ever hired someone you know by referrals or endorsements before? What happened along the process? Did you fire any? Did he act as an asset?

Are there companies or any institutional-related mediums to help you hire labour?

What do you think of Egyptian Labour in the craftsmanship/vocational industry? تعليم فني او تقني زي مدارس المانية

How do they affect the final product? Any deficiencies?

If they are not skilful enough, how do you mediate the poor performing human capital?

**based on field readings; labour in this sector are skilled, unlike that of ICT whom you teach them from scratch, however of the crafts industry they lack quality during creating their final product. 'Hinting to problems in the supply chain and production process'*

Market Domain:

In your industry, what are your inputs 'technical'/ supplies or equipment for your supply chain? Do you have a factory or a 'warsha' / workshop? Where is it based?

Who are the important ecosystem actors in your industry? (Labour, quality assurance officers, bankers, civil servants, suppliers, customers) **this is a product sector, so it would be more complicated than the ICT industry of Service sector*

How would you describe the market of the craftsmanship industry in Cairo? How do you perceive it?

How do you have access to the actors for your product chain? Who are the main actors of your business?

Did you strengthen your relationship with him? When? Why and how did that happen? What made you trust him?

As a female, are there challenges in networking with those actors? Labour, suppliers, etc

Do you think as a woman, there are challenges that men in your field dont experience? Why?

Harassment,

Do you have written contracts with your suppliers? Why not? Have you ever experienced breach of contract as a result of having no written ones?

What about the advertisement? Do you rely on models or influencers?

Do you attend bazars? How did they benefit you?

If no contracts, what is the means of communications between you & your suppliers or labour?

Are you aware of any network summits for start-ups in this industry offered by both the public and private sector? Have you attended any? What are your thoughts on them? Were they beneficial?

Theme 2: how did you overcome such challenges? did social capital play any role of what mechanisms of action did you rely on to grow your business

What are the main challenges in your start-up that are prohibiting its expansion? Or if you were a minister of a craftsmanship industry, what would you first intervene to address its failure?

Are there any summits in your industry? Do you think there is governmental encouragement for exportation after economically liberating the Egyptian pound?

Do you trust such governmental institutions aimed at supporting you in terms of public incubators?

Appendix 5: The Interview questions to fashion entrepreneurs after the pilot phase/final version

Background Information:

Could you tell me more about your company? How did you start it?

Why did you choose this creative industry? What was your motivation?

Can you give me information about number of the employees? Approximate yearly sales turnover?

Your age & your educational background?

THEME 1: the main challenges of the jewellery industry in Egypt?

Financial Domain:

How did you have access to your seed capital for start-up? Did you rely on social capital for business funding? (family or friends as partners)? Why or why not?

What are the financial problems that prohibit you from expansion in your business? How does this inhibit your work progress? **impact on the industry*

Have you had any partners during the start-up process? What happened along the process of business operating?

Regarding formal institutions: Why didn't you rely on having a bank loan? (interest rates, loans, collaterals, etc)

Have you resorted to VCs and/or Angel investors of the private sector instead? Are you aware of their existence to support craftsmanship as a thriving industry? What is your perception of them?

Do you have any idea about incubation and are there any that support Small businesses in the jewellery section in Egypt? why? why not?

Do you believe there is a network of ventures or angels who support your sector only? Focus on its growth for exportation?

Have you relied on social capital for office facilities, supplies, tables, location, etc?

Human Capital Domain:

How do you hire your technical labour? حرفيين او عمال فنيين

Do you have any team for quality control?

Have you ever hired someone you know by referrals or endorsements before? What happened along the process? Did you fire any? Did he act as an asset?

Are there companies or any institutional-related mediums to help you hire labour?

What do you think of the Egyptian Labour in the craftsmanship/vocational industry? تعليم فني او تقني زي مدارس المانية

in your product line, do you rely on workshops or factories or what is the business model of your business?

How do they affect the final product? Any deficiencies?

If they are not skilful enough, how do you mediate the poor performing human capital?

**based on field readings; labour in this sector are skilled, unlike that of ICT whom you teach them from scratch, however of the crafts industry they lack quality during creating their final product. 'Hinting to problems in the supply chain and production process'*

Market Domain:

In your industry, what are your inputs 'technical'/ supplies or equipment for your supply chain? Do you have a factory or a 'warsha' / workshop? Where is it based?

Who are the important ecosystem actors in your industry? (Labour, quality assurance officers, bankers, civil servants, suppliers, customers) **this is a product sector, so it would be more complicated than the ICT industry of Service sector*

How would you describe the market of the craftsmanship industry in Cairo? How do you perceive it?

How do you have access to the actors for your product chain? Who are the main actors of your business?

Did you strengthen your relationship with him? When? Why and how did that happen?

What made you trust him?

As a female, are there challenges in networking with those actors? Labour, suppliers, etc...

Do you think as a woman, there are challenges that men in your field don't experience?

Why? *Harassment*,

Do you have written contracts with your suppliers? Why not? Have you ever experienced breach of contract as a result of having no written ones?

What about the advertisement? Do you rely on models or influencers?

Do you attend bazars? How did they benefit you?

If no contracts, what is the means of communications between you & your suppliers or labour?

Are you aware of any network summits for start-ups in this industry offered by both the public and private sector? Have you attended any? What are your thoughts on them? Were they beneficial?

Theme 2: how did you overcome such challenges? did social capital play any role of what mechanisms of action did you rely on to grow your business

What are the main challenges in your start-up that are prohibiting its expansion? Or if you were a minister of a craftsmanship industry, when and how did you first intervene to address its failure?

Are there any summits in your industry? Do you think there is governmental encouragement for exportation after economically liberating the Egyptian pound?

Do you trust such governmental institutions aimed at supporting you in terms of public incubator

Appendix 6: Interview questions to digital entrepreneurs at stage on of data collection

Background Information:

Could you tell me more about your company? How did you start it?

Why did you decide to have your own company? Why Cairo?

Why did you choose the digital sector?

Can you give me information about number of employees? Approximate yearly sales turnover?

Your age & your educational background?

THEME 1: How social capital/informal interactions acted as a way of coping with formal institutional voids?

Financial Domain:

What are the financial problems that prohibit you from expansion in your sector?

How does this inhibit your work progress? Can you give me examples? **Impact of void*

How did you have access to your seed capital for start-up? Did you rely on social capital for business funding? (family or friends as partners)?

Do you prefer to rely on family and friends for seed capital? Why and why not?

Do you support the idea of relying on family and friends in business?

How do the sources of funding change throughout the course of your start up till expansion?

**reflection on the process & stages to growth in respect to social capital*

Regarding formal institutions: Why didn't you rely on taking a bank loan? (interest rates, loans, collaterals, etc)?

How do you perceive the economic sustainable plan of 2030 to support the digital sector?

Have you heard about it? Do you trust its role in helping SMEs in the digital sector? Do you

think it can benefit you in any form? **trust is and institutions are the underlying theme as*

normally ex socialist nations do not trust any public institutional reformations

Have you resorted to VCs and/or Angel investors of the private sector instead? Are you

aware of their existence? Have you attended their meetings? What is your perception of

them?

How do you perceive the venture capitalist industry in Egypt? Have you heard of them?

Business plan competitions?

Have you relied on social capital for office facilities, supplies, tables, location, etc? Is there

any dark side of social capital? in business? Why and why not?

Human Capital Domain:

How do you hire your employees?

Have you ever hired someone you know by referrals or endorsements before? What

happened along the process? Did you fire any? Did he act as an asset? **reflections on the*

process are added as an effect of the pilot findings?

How do you think of Egyptian Labour in the digital industry?

How does this affect your performance? **impact of the void*

How do you mediate the poor performing human capital domain of the ecosystem?

operational acts not just strategies

Market Domain:

Did you strengthen your relationship with suppliers of other members of your ecosystem?

When? Why and how did that happen? What made you trust him?

In your industry, are you embedded within a certain community of entrepreneurs? *may be other actors of the ecosystem* / financiers/ suppliers/ customers/policy makers/ civil servants?? **as an effect of the pilot, entrepreneurs understand the meaning of 'markets' and 'ecosystem' and they are used in the daily Egyptian language of business communication without Arabic transliteration*

What is your relationship within your business actors of the ecosystem; lawyers, accountants, insurance, advisors, clients, civil servants, bankers, etc?

Are you aware of the recent network summits for start-ups offered by both the public and private sector? Have you attended any? What are your thoughts on them? Were they beneficial?

THEME 2: Social Capital theory dimensions? Depth of social capital?

In general, whom do you rely on, for your business to grow? (mainly in terms of access to finance, supplies, information & qualified labour). Whether Circles of personal; family, partners/ friends/ workmates/ business; public social events or professional meetups?

**the main aim here is to see which plays a prominent role; social capital or social media or professional clubs/memberships or events & summits? acting as a business resource*

How do you forge a strong relationship with your business actors? Do you have a personal relationship with your suppliers or only professionals?

What are your networking schemes for your business? Do you attend clubs? Associations? Memberships? etc

How do you establish trust for your relationship with your suppliers or actors?

Can you give me an example of a time when this supplier really helped you out in your business? Do you also do an exchange of favours? Did you offer something in return for

another? **This question targets the complexity and density of interactions within a unit referring to embeddedness concept*

How have you known such a governmental officials/ civil servants? How do you maintain relationships with them for your business survival?

Theme 3: Other challenges of the ecosystem in the digital sector?

What are the main challenges in your start-up that are prohibiting its expansion? Or if you were a minister of the digital sector, what would you first intervene to address its failure?

How do you cope with failure in such a domain?

Are you aware that there are recent initiatives for start-ups in the ICT/ sector; rise up summit, Cairo innovate, TIEC, Creative summit, fekretak sherketak?

Do you trust such governmental institutions aimed at supporting you in terms of public incubators?

Does your family support your business? Did you face any challenges convincing them?

**reflecting on culture domain*

If not, how do they cope with their abstention from support?

Appendix 7: Interview questions to fashion entrepreneurs after the pilot phase/ final version

Background Information:

Could you tell me more about your company? How did you start it?

Why did you decide to have your own company? Why Cairo?

Why did you choose the digital sector?

Can you give me information about the number of employees? Approximate yearly sales turnover? Your age & your educational background?

THEME 1: How social capital/informal interactions acted as a way of coping with formal institutional voids?

Financial Domain:

What are the financial problems that prohibit you from expansion in your sector?

How does this inhibit your work progress? Can you give me examples? **Impact of void*

How did you have access to your seed capital for start-up? Did you rely on social capital for business funding? (family or friends as partners)?

Do you prefer to rely on family and friends for seed-up?

How do the sources of funding change throughout the course of your start up till expansion?

**reflection on the process & stages to growth in respect to social capital*

Regarding formal institutions: Why didn't you rely on taking a bank loan? (interest rates, loans, collaterals, etc)?

How do you perceive the economic sustainable plan of 2030 to support ICT? Have you heard about it? Do you trust its role in helping SMEs in the digital sector? Do you think it can benefit you in any form? **trust and institutions are the underlying theme as normally ex socialist nations do not trust any public institutional reformations*

Have you resorted to VCs and/or Angel investors of the private sector instead? Are you aware of their existence? Have you attended their meetings? What is your perception of them?

How do you perceive the venture capitalist industry in Egypt? Have you heard of them?

Business plan competitions?

Have you relied on social capital for office facilities, supplies, tables, location, etc?

Human Capital Domain:

How do you hire your employees?

Have you ever hired someone you know by referrals or endorsements before? What happened along the process? Did you fire any? Did he act as an asset? **reflections on the process are added as an effect of the pilot findings*

What is the main challenge of relying on social capital for hiring employees? Have you hired any of your family members or friends before? What happened afterwards?

Have you relied on websites or head-hunting for hiring?

How do you think of Egyptian Labour in the digital industry?

How does this affect your performance? **impact of the void*

How do you mediate the poor performing human capital domain of the ecosystem?

operational acts not just strategies

Market Domain:

In your industry, what are your inputs 'technical'/ supplies or equipment for your supply chain?

how would you describe the performance of the digital market from your own perspective & why?

How do you reach your current suppliers? (online, through friends, already a friend, attending events, etc)?

Did you strengthen your relationship with him/her? When? Why and how did that happen?

What made you trust him?

In your industry, are you embedded within a certain community of entrepreneurs? *may be other actors of the ecosystem* / financiers/ suppliers/ customers/policy makers/ civil servants?? **as an effect of the pilot, entrepreneurs understand the meaning of 'markets' and 'ecosystem' and they are used in the daily Egyptian language of business communication without Arabic transliteration*

What is your relationship within your business actors of the ecosystem; lawyers, accountants, insurance, advisors, clients, civil servants, bankers, etc?

Are you aware of the recent network summits for start-ups offered by both public and private sector? Have you attended any? What are your thoughts on them? Were they beneficial?

THEME 2: Social Capital theory dimensions? Depth of social capital?

كيفية استخدام و تفعيل رجل الاعمال لعلاقاته الاجتماعية من اجل التغلب علي المشاكل التي يواجهها؟ (كيف تعمل دائرة او شبكة علاقاتك الاجتماعية

In general, whom do you rely on, for your business to grow? (mainly in terms of access to finance, supplies, information & qualified labour). Whether Circles of personal; family, partners/ friends/ workmates/ business; public social events or professional meetups?

**the main aim here is to see which plays a prominent role; social capital or social media or professional clubs/memberships or events & summits? acting as a business resource*

How do you forge a strong relationship with your business actors? Do you have a personal relationship with your suppliers or only professionals?

What are your networking schemes for your business? Do you attend clubs? Associations? Memberships? etc

How do you establish trust for your relationship with your suppliers or actors?

Can you give me an example of a time when this supplier really helped you out in your business? Do you also do an exchange of favours? Did you offer something in return for another? **This question targets the complexity and density of interactions within a unit referring to embeddedness concept*

How do you perceive *wasta*? Is it important in business in Egypt? Can you specify a situation by which it helped in carrying tasks?

How have you known such a governmental officials/ civil servant? How do you maintain relationships with them for your business survival?

Theme 3: Other challenges of the ecosystem in the digital sector?

What are the main challenges in your start-up that are prohibiting its expansion? Or if you were a minister of digital, what would you first intervene to address its failure?

How do you cope with failure in such a domain?

Are you aware that there are recent initiatives for start-ups in the ICT/ sector; rise up summit, Cairo innovate, TIEC, Creative summit, fekretak sherketak?

Do you trust such governmental institutions aimed at supporting you in terms of public incubators?

Does your family support your business? Did you face any challenges convincing them?

**reflecting on culture domain*

If not, how do they cope with their abstention from support?

Appendix 8: Invitation letter for an interview

hope you are fine, Dear

It's Dina Ayman, a PhD researcher at Edinburgh University. I am researching entrepreneurial ecosystems in the ICT sector vs the creative jewellery industry within the context of institutional voids

I am interested in knowing how your own networks 'social capital' played a vital role in enabling you to cope with the mediocre functioning of formal institutions in Egypt.

I am writing to cordially invite you for an interview, as your expertise of managing " shall add depth and breadth to my research.

During the interview, I will discuss the following topics preferably evidenced by specific situations:

- 1) The challenges facing your business & threatening its growth.
- 2) How did you employ such social capital in gaining access to funds, labour & improving business supply chain?
- 3) How do you strengthen your business ties with your network? What is the value they added which couldn't have been found elsewhere?
- 4) Have you had any interaction with the Egyptian business institutions? What are your thoughts
- 5) The positive aspects of the ecosystems in your field.

I have considered that a zoom interview is the best option at the times of the Covid 19, which would last 1 hr min to 2 hr max. Kindly notice that your name shall be kept anonymous during the data analysis process, and I will get back to you with the final transcription of what has been said & understood for your final approval.

Thank you for your willingness to contribute. Awaiting time & venue confirmation.

Appendix 9: Example of field note of NA

Background Information:

Could you tell me more about your company? How did you start it?

Ahmed graduated from BUE, 2012 in Computer science. He had a reputation for design and creativity since his undergraduate studies, so he used to work whilst at the university already having customers for his own page and with the word of mouth people customers increased. So, he established his own company after graduation. *Can you give me*

information about no of employees? Approximate yearly sales turnover?

They are 20 with an annual turnover of 5 million.

Your age & your educational background?

30 and am a graduate of the BUE

THEME 1: How social capital/informal interactions acted as a way of coping with formal institutional voids?

Financial Domain:

How did you have access to your seed capital for start-up? Did you rely on social capital for business funding? (family or friends as partners?)

Ahmed seized the opportunity of the 2011-2014 revolution to create printed t-shirts selling 500 shirts per day on Souq 'currently bought by Amazon', encouraging the giant to invest in his business. Also, he won the first place during startup weekend in Cairo, creating an app

called 'help me' or 'enkezny' during the revolution to combat the fear spreading at times of upheavals. GREEK CAMPUS VC.

Regarding formal institutions: Why didn't you rely on having a bank loan? (interest rates, loans, collaterals, etc).

He does not prefer to rely on banks due to the 'stringent financial requirements attached', and the entrepreneurial preference for autonomy and independent led him not to search for bank

Why did you not resort to VCs and/or Angel investors of the private sector instead? Are you aware of their existence? Have you attended their meetings? What is your perception of them?

Ahmed relies on the protestant work ethic, though he is a Muslim, in investing the profits of his venture back into the cycle of it, so he could grow his business without resorting to VCs or banks who he will not rely on except 'when in dire need'. He referred to them as 911 or the least option available.

How do you perceive the venture capitalist industry in Egypt?

They seek to gain money, at the expense of the company's growth. so, they are the least option for me. However, I do like getting close to them, due to their networks & experience.

Have you relied on social capital for office facilities, supplies, tables, location, etc?

Yes, my father offered me the office & technical facilities at my own old place, then I relocated to a new place after having enough profits for such sake.

Human Capital Domain:

How do you hire your employees? If relied on social capital, what did this employee offer as an 'asset'?

I advertise on web pages for my own company that I am looking for a job. I prefer the professional way

*What is the main challenge of relying on social capital for hiring employees? Have you hired any of your family members or friends before? **reflections on the dark side of social capital?*

He does not prefer to rely on social capital for hiring as it offers 'obligations' and sets 'high expectations', or 'assham', citing that one employee used to come at 1 pm, instead of 9 am due to such reliance on 'strong ties'. However, his partner recommended hiring a 'skilful' account manager who had helped him in the documentation & upgrade administration system. In sum, he prefers the professional way of recruitment even if there is an endorsement element, as long as he teaches them.

Why didn't you rely on websites or head-hunting as formal institutions for hiring?

Ahmed has a subscription on all national professional websites such as Wuzzuf & other technical groups in his industry, but still he is looking for 'passionate' employees willing to learn, and he is on the other end, able to invest in them.

How do you think of Egyptian Labour in the S/W industry?

There is a huge lack of talent in this field, and no quality offered.

How do you mediate the poor performing human capital domain of the ecosystem?

Ahmed invests in his own education through subscription in linda.com, edu.com & other related prominent global educational websites to get exposed to updated information in

the field, or as he puts it 'the recent international updates in the technical field, rather than the national one'.

Market Domain:

In your industry, what are your inputs 'technical'/ supplies or equipment for your supply chain?

**reflections on the business model were provided?*

Mostly hardware and software equipment. I am a web designer, so it is all in my mind.

How do you reach your customers?

They come to me through word of mouth & after seeing my online portfolio.

Are you aware of the recent network summits for start-ups offered by both the public and private sector? Have you attended any? What are your thoughts on them? Were they beneficial?

Without relationships, no need to do business at all. Ahmed says that 'business connections are vital for businesses or don't do it at all'. He believes that personal relationships do foster professional relationships such as how his strong ties with the rise up summit founder introduced him to the Egyptian platform of successful entrepreneurs in his industry. *Are there lots of competitors in your industry?*

No

THEME 2: Social Capital theory dimensions? Depth of social capital?

كيفية استخدام و تفعيل رجل الاعمال لعلاقاته الاجتماعية من اجل التغلب علي المشاكل التي يواجهها؟ (كيف تعمل دائرة؟ او شبكة علاقاتك الاجتماعية

In general, whom do you rely on, for your business to grow? (mainly in terms of access to finance, supplies, information & qualified labour). Whether Circles of personal; family, partners/ friends/ workmates/ business; public social events or professional meetups?

Attending events, friends, summits and networking events. I knew *Sharara* through a friend, who invited me for the event while on his way to it.

How do you forge a strong relationship with your suppliers? Do you have a personal relationship with your suppliers or only professionals?

Yes, I do have strong ties with them. The relationship is 'brotherhood ties', Interestingly, Ahmed says that in his business, a simple daily playdate with the industry professionals/suppliers, such as PlayStation, a gym workout, or a family dinner could create 'deeper relationships' and 'strengthen ties' which is translated on the professional level. As well, he cited he can do designs for free which is known in the field as bartering.

He cited his relationship after such encounters is to be as deep as 'brotherhood ties', not such friendship. He also uses his social & emotional intelligence skills which he has gained through his 'experience' and 'body language reading' to understand people and fathom their intentions prior to signing a contract.

How do you establish trust for your relationship with your suppliers?

Through acting professionally, meeting deadlines of supply, and bartering or exchange of favours for free. I do designs for free in return to strengthening such ties.

Can you give me an example of a time when this supplier really helped you out in your business? Do you also do an exchange of favours? Did sth in return for another? *This Q targets the complexity and density of interactions within a unit referring to embeddedness concept*

Does your industry have main suppliers or main brokers 'bridging' who you should have access to, in order to gain exclusive resources or information or networks?

Attending summits is important for networking, alongside, getting close to venture capitalists and investors for their networks

Has one of your social networks helped you in offering exclusive information?

N/A

Theme 3: The challenges of the ecosystem in the ICT sector?

What are the main challenges in your start-up that are prohibiting its expansion? Or if you were a minister of digital, what would you first intervene to address its failure?

Human capital & education.

Freelancing also as there is no paypal, so I had to travel to the US to open a bank account for my international transactions. Our industry has freelancers more than full timers.

How do you cope with failure in such a domain?

I subscribe to Linda.com, Udemy & Edu & I do teach my employees what I have learnt based on the recent international updates in the field. I just search for people with passion.

Are you aware that there are recent initiatives for start-ups in the ICT/ sector; rise up summit, Cairo innovate, TIEC, Creative summit, fekretak sherketak?

Yes, I do attend all of them.

Do you trust such governmental institutions aimed at supporting you in terms of public incubators?

No

Appendix 10: Within-case analysis visual representation at the early stages of analysis

	Characterisation of void & Reason	Effect on the process of the ecosystem in terms of human resources /access	Coping mechanism SC OR Not?	Literature suggestions to theory
digital human capital Void	Moderate skills & lack of calibre in terms of middle management (project mgt + technical skills of S/W); or business development sector 22 + 24	Limits innovation capacities within the firm, no competition main challenge for his business growth (22) Workload as they have to work extra hours Affects their wellbeing by creating physical & psychological stress & emotional burden. (only 1 liked the stress; Magdy) Affects social fabric of society & problems regarding teamwork /(envy)	he does encourage people to actively seek for jobs, and he calls this "community empowerment to empower ppl to ask for jobs". (22) -self education (26) through y-combinator accelerator school & Udemy certifications in forecasting & analysis -Wuzzuf or online postings on social media, "prefer to rate high in personality" and/or	Literature suggests SC for resource-access. Broadens literature/expands on theory suggestions -the self -personality of the entrepreneur (autonomy) -power of social media <i>Entrepreneurs + power of social media replace institutions</i> <i>*professionally* not using it for fun, informally</i>

	Steep divide between internationally vs publicly educated personnel "elitism", as he needs a new car "23", presentation skills or even writing a good CV presentation skill (22, & 27)		passion "24" -has to pay more money to find high talent, so plus taxation plus VAT, so much! -youtube pitching skills to win round of 100,000 3 rd place "24",	
	Brain Drain or prefer to join MNCs "24", 22			

Appendix 11: Cross-case analysis using matrix on financial capital domain/void at the 3rd stage of data analysis

Unit of comparison	Digital sector	Fashion sector
Financial capital	Surprisingly an evolving domain	Underdeveloped financial capital void
Venture capitalists	90% resorted to them	Absent awareness of it
Governmental fiscal policy	Supportive	Absent

Appendix 12: (provisional list of codes at NVivo)

Nodes							
Search Project							
Name	Files	References	Created On	Created By	Modified On	Modified By	
motivation for business		30	50	16/09/2021 13:57	DINAYMAN	23/01/2022 05:27	DA
parental effect		2	3	14/12/2021 20:22	DA	23/01/2022 05:20	DA
business model of ICC		4	5	01/11/2021 16:38	D,A	24/01/2022 01:59	DA
bazzars		5	5	01/11/2021 13:25	D,A	03/11/2021 04:17	D,A
business partners in CCI		3	3	01/11/2021 13:24	D,A	24/12/2021 20:59	DA
coping mechanisms		39	158	16/09/2021 13:50	DINAYMAN	01/07/2022 21:23	DA
Coping mechanisms with bias & manipulation		5	7	24/12/2021 20:51	DA	20/09/2022 01:58	DA
couriers as coping mechanisms		1	2	30/04/2022 01:46	DA	30/04/2022 01:48	DA
financial domain challenges		37	92	16/09/2021 13:48	DINAYMAN	24/12/2021 19:49	DA
accelerators & incubator programs		13	14	16/09/2021 14:04	DINAYMAN	01/11/2021 13:17	D,A
bank		30	32	16/09/2021 13:54	DINAYMAN	23/01/2022 04:19	DA
crowdfunding absent		1	1	27/09/2021 18:45	DINAYMAN	27/09/2021 18:45	DINAYMAN
financial transfer		1	1	16/09/2021 15:07	DINAYMAN	27/09/2021 19:48	DINAYMAN
mentorship		2	3	16/09/2021 14:02	DINAYMAN	27/09/2021 19:17	DINAYMAN
VC & angels		30	36	16/09/2021 13:54	DINAYMAN	23/01/2022 04:20	DA
wallets		4	4	29/09/2021 19:00	DINAYMAN	12/10/2021 07:03	DINAYMAN
human capital challenges		28	56	16/09/2021 13:49	DINAYMAN	30/04/2022 04:42	DA
ICT is dominated by elites		8	8	16/09/2021 14:11	DINAYMAN	24/01/2022 02:14	DA

103 items

Appendix 13: MEMO: 23/9/2021

- 1) the more I transcribe, the more I expand in the S/W NVivo
- 2) social capital at the beginning was separate node (then at level 2, I did divide into + or -ve)
- 3) **awkward**: one of the entrepreneurs blamed others for not knowing the process of the registrar of requested papers (no.30)? separate node? + elitism at the beginning only then started to change with the help of internet “self-educate” online (paradox)?
- 4) simultaneous code; elitist; “VCs / ecosystem / in terms of the requirements of showing off; car or/and even business location from Nasr City to New Cairo” elitist locations
- 5) simultaneous codes; VC & angels (as sample did identify lots of challenges but they said its main source of funding in tech industry)
- 6) whether networking & social media should be separate or not? at the beg. one node, then they had to be separate (WOM & summits), social media groups,
- 7) I did go line by line and name the phrase based on types of codes (Saldana, 2013)
- 8) I did classify the challenges per 3 domains,
- 9) impact was a separate node
- 10) coping mechanisms were separate nodes, now they should be formed within a family node

Appendix 14: Memos on NVivo: 2nd stage coding

Expansion of human capital code:

Codes such as attention to detail has been sub-coded to human capital domain, as well as, quality of design which used to be codes on their own, as well as, defaux in the product measurements, time commitment, attitude; all grouped under theme of human capital domain

Also, subthemes of the educational system, lack of union that gathers them & weed addiction has been added as a grandchild to the theme of human capital domain. "has been used by some of the sample to elaborate on the underperformance of human capital domain\

Financial domain:

Organization of codes as VC, BANKS, crowdfunding while VC had sub-codes of picky, abuse ignorance, financial transfer & haram has been a code under banks

Incubators & angels ??? vs VC, the first was under coping mechanisms, but as a challenge, paradox as also lots stated it was a +ve

General of new themes:

Poor ENT awareness about system (BUSINESS lack of awareness ICC + gvt changes in most digital

Women only challenges have been added

Business model of the ICC

digital sector is dominated by elitists

D Ash7

End

