Entrepreneurial enactment as social value creation: an exploration of the Aberdeen entrepreneurial ecosystem.

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ENTREPRENEURIAL ENACTMENT AS SOCIAL VALUE CREATION: AN EXPLORATION OF THE ABERDEEN ENTREPRENEURIAL ECOSYSTEM

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ENTREPRENEURIAL ENACTMENT AS SOCIAL VALUE CREATION: AN EXPLORATION OF THE ABERDEEN ENTREPRENEURIAL ECOSYSTEM

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ABSTRACT

The research explored how entrepreneurial enactment leads to social value creation in the entrepreneurial ecosystem using interpretive qualitative approach. The research and findings are delivered in a structured narrative. This approach is adopted to reveal how entrepreneurial enactment traverses' economic profitability to include personal and social value creation through the agency of social interaction. By adopting a modified social interaction model, the research explored the perspectives of 11 key informants using semi structured interviews. Interviews were audio recorded, transcribed and thematically analysed using Nvivo 20, a qualitative data management software program for social sciences. Findings reveal that entrepreneurial enactment precedes social interaction within the entrepreneurial ecosystem. Furthermore, the findings show that social interaction is a personal value with defining goals and concepts, whereas, it also acts as a medium for the expression, exchange and co-creation of other personal values such as achievement, power, benevolence and conformity. According to this finding, when any two or more social actors are engaging in value expressing activities as they interact socially, this leads to social value creation among the participants. Social value creation is therefore found to be enabled by the imperative to express entrepreneurial enactment during social interaction in the entrepreneurial ecosystem.

Keywords: *Entrepreneurial Enactment, Entrepreneurial Ecosystem, Personal Value Creation, Social Value Creation, Social Interaction, Entrepreneurship, Post-Covid*

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Chapter 1 INTRODUCTION

1.0 Introduction

As far back as 1942, Schumpeter's novel manuscript on creative destruction opened a new paradigm to the study of entrepreneurship outside the realms of strategy for economic profitability. The new paradigm contextualises the role of the entrepreneurs as social agents of change and observes entrepreneurship as a social process of converting ideas into economic value.

The social approach to the study of entrepreneurship has however, been extended into investigating the role of the entrepreneurs in entrepreneurship (Thakur 2019), in understanding the entrepreneurial process (Song et al. 2019), in developing frameworks for measuring the impact of entrepreneurship (Gomez and Lafuente 2021), and most recently, in the development of societies (Florida et al. 2020).

As a result, cities, which are the most common society globally, are explored as the platform for innovative and entrepreneurial activities (Florida et al., 2020). In cities, the roles of the social actors have evolved from primarily creating profit for themselves to the creation of new ventures and processes that promote relationships and strategic collaboration along social networks within cities. This phenomenon is seen to have a positive impact on the development of the city as a whole through the creation of both economic and social values (Amanor-Boadu et al. 2009, Handfield et al. 2009, Gast et al. 2017).

For example, locations such as Silicon Valley, Auckland and Tel Aviv are cities characterised by the physical amalgamation of social actors who interact entrepreneurially. They do so to govern, integrate and promote business and social activities within the region in a way that makes it possible for themselves, their businesses, and the society thrive (Stam and Ven 2019).

While global policy makers are looking to replicate the success of these territories by supporting entrepreneurial actors locally in both advanced and emerging economies, there has been a latency to the adoption of the entrepreneurial ecosystem by social actors who feel alienated from the system (Roundy et al. 2018; Stam and Ven 2019).

Research and investment of billions into the promotion, growth and support of small business and start-ups in both emerging and advanced economies serve as evidence for the promotion of the entrepreneurial ecosystem approach by policy formulators (Kato 2021, Diez et al. 2021). To achieve sustainable growth of the entrepreneurial ecosystem however, the localised social actors need to interconnect themselves with multiple other actors such as stakeholders, institutions, law enforcement and other entrepreneurial social actors accordingly. They need to do this to share resources, network externalities, benefit from knowledge spill-over, and secure local support as they learn and grow (Ferreira et al. 2019, Audretsch et al. 2019).

The entrepreneurial ecosystem should therefore be seen as any structured network or socio-economic environment that affects entrepreneurship (Bouncken and Kraus 2021). It is possible to infer from this definition that the entrepreneurial ecosystem is not limited by borders, physical infrastructure, specific social actors or resources. The entrepreneurial ecosystem is an integration of all these factors; pre-existing, created and perceived subjectively by each entrepreneurial actor as they interact with different components with the purpose of enacting entrepreneurship.

While the interconnectivity of the entrepreneurial ecosystem has undergone rigorous evaluation by academics, policy formulators and practitioners, there is still sparse evidence on how the introduction of these systems impact the development of personal values among social actors. More so, how entrepreneurial enactment by social actors leads to social value creation within territories in a way that ensures the sustainability of the economy requires further clarification (Bouncken and Kraus 2021).

Nonetheless, studies have argued that entrepreneurship can be used to address social problems such as inequality, shortages and climate change (Seigner et al. 2018, Saebi et al. 2019). For example, Auerswald (2009) reported that while the objective of personal computer manufacturers is to create economic value through the sales of computing units, social value is however created as each computing unit improves the standard of living of the end users. It can therefore, be concluded that every entrepreneurial transaction creates some form of social value. Social value creation in entrepreneurship, however, traverses using

commercial means to meet social goals, or starting a company to provide a public good (Cao and Shi 2021).

A research conducted on persons living within the sustainability themed entrepreneurial ecosystem of Friland, showed evidence on how social value is created among entrepreneurial actors through the re-enactment and practice of entrepreneurship (Anderson and Korsgaard 2011). Regardless of their backgrounds, new settlers were prescribed entrepreneurial norms which pertain the welfare of nature and respect for others when settling and starting a business in the region (Anderson and Korsgaard 2011, Schwartz 2012). Through re-enactment and practice of entrepreneurially prescribed social norms, personal values were created among the participants in the research who had committed to being a part of the entrepreneurial ecosystem over time.

This research therefore, evaluates how social values are created within the entrepreneurial ecosystem - where social value creation connotes the growth and development of personal values by social actors as they interact and enact entrepreneurship.

For this research, entrepreneurial enactment is used as a concept to define a social actor's ability to express entrepreneurial knowledge, skill or orientation practically. Despite the invaluable contribution enacting entrepreneurship could make to the practice of entrepreneurship and the development of individuals (Roundy et al. 2018), there is no recent academic literature to explicitly show and promote this relationship. The research further seeks to uncover how the development of personal values through entrepreneurial enactment has the ability to create social value through re-enactment and practice among individuals who are collocated. This means that the research has the potential to make an elemental contribution to the development and adoption of the post-modern entrepreneurial ecosystem society practically, by drawing awareness and incentivizing a constructive paradigm to the individual practice of social actors.

Capturing social value creation in entrepreneurship within this context will serve to incentivise entrepreneurial enactment among individuals in a time when there is a global shift to the entrepreneurial ecosystem as the post-modern socio-economic system of governing territories (Stam and Ven 2019). In fact, cities have become the platform for innovative and entrepreneurial activity, thereby

reinforcing the need to emphasise entrepreneurial enactment as a social norm through creating knowledge that informs its benefits for both social and personal value creation (Florida et al. 2020).

Literature on entrepreneurial enactment within entrepreneurial ecosystems exist, however, these studies are often atypical of entrepreneurs (Kon et al. 2014, Spigel 2017). A limited or lack of academic knowledge on the personal development of entrepreneurs within the entrepreneurial ecosystem results in an oversight of the benefits of entrepreneurial enactment as a social norm within societies. This lack of information around entrepreneurial enactment leads to an oversight of its social benefits to the nascent entrepreneur, leaving a huge gap in its incentivization and practice.

As this research is centred on individual practice within the socialised context of the entrepreneurial ecosystem, the research recognises that there are indeed many approaches, models and frameworks that converge the ideation of behaviour and practice within social systems. For example, Parsons' (Parsons and Shils 1951) theory on social action was so profound, he is recognised as an authority in the field of sociological research. His approach can however, be criticised for focusing on conceptualising social structures and the functions of the social system without necessarily uncovering the process of social interaction within social systems at the individual level. This theme is still prevalent in most contemporary sociological research (Lidz 2021, Besche-Truthe et al. 2022).

This research thus, upholds that social interaction plays the most elemental unit of any sociological analysis, more so at an individual level, and therefore, is adopted as a suitable approach to capture the theme of this research (Turner 1988, Alsalman 2021). While the research evaluates entrepreneurial enactment at an individual level, the research does not focus on understanding entrepreneurial enactment as a behaviour from a psychological point of view. Rather, the research will seek to evaluate entrepreneurial enactment only implicated as a motivation in the process of social interaction within the entrepreneurial ecosystem. Below (Figure 1) is a version of Turner's (1988) social interaction model which was developed and adopted for this research. Turner's (1998) model began its development on the basic unit of sociological research i.e. social interaction. Turner's (1988) model views social interaction as all overt

movements, covert deliberations, and basic physiology of any one individual that influences those of another and their environment, and vice versa. And so, rather than approaching social interaction in terms of typological relations such as exchange (Homans 1961), ethnomethods (Garfinkel 1967), symbolic interaction (Blumer 1969), dramaturgy (Goffman 1959), or interaction rituals (Collins 1986), this research holds, like Turner (1988), that the logic behind the processes are the same - whereby through social interaction, relationships are created, disrupted or sustained regardless of the typological process involved within structures.

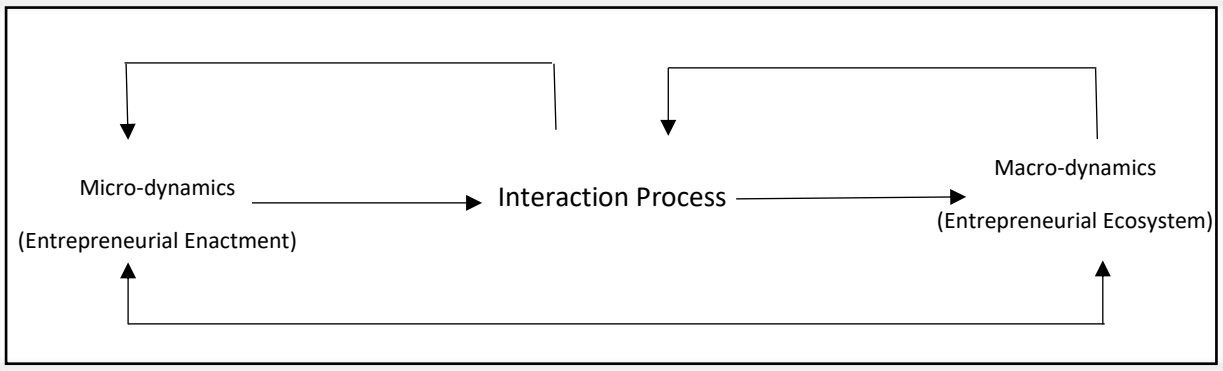

Figure 1 The interrelationship between the elements of social interaction (Adapted from Turner (1988), pp 15)

Therefore, Turner's (1988) model enables this research to avoid the temptation to be chauvinistic towards one typology of social relations. Rather the model enables this research show the dynamic elements of social interaction within the structure of the entrepreneurial ecosystem. The model also enables the sensitization of data to be collected and delivered in creating the conceptual framework for exploring how social value is created through social interaction within the entrepreneurial ecosystems.

While Turner's (1988) model could be criticised for not emphasising typologies of relations within interaction processes as its major limitation, the original model has proven valid when adopted alongside models from other schools in developing grounded social theory. For example, in the political sciences (Wednt 1999), in developing models for policy formulation, implementation and governance (Kooiman 2003), and in understanding identity formulation and communication across cultures (Wendt 1994, Ting-Toomey and Dorjee 2018).

The model expresses the interrelationship that exist when examining social interaction holistically from both the micro and macro levels. Micro examines the

properties of social interaction i.e. individual social actors- and macro examines properties of populations i.e. regions or territories (Turner 1988). In the development of the original model, Turner (1988) sought to bridge the micro-macro gap in sociology studies by developing the model as a sensitization scheme for sociological analysis, making it possible to undertake sociological research within specific contexts. The model divides social interaction into three separate, but interrelated processes which are explored in this research i.e. motivation, interaction process and structuring.

Motivation here denotes the varied ways and degrees to which actors are willing or unwilling to apply themselves and their resources towards a social interaction (Turner 1988). The motivation here implies the 'why' of social interaction - in the case of this research, enacting entrepreneurship within the entrepreneurial ecosystem. This research does not seek to develop a theory of motivation per se, rather, this research seeks to use this approach to understand what mobilizes entrepreneurs to interact with each other within the entrepreneurial ecosystem in a way that helps them and the system thrive. It is necessary to understand motivation when evaluating social interaction in entrepreneurial ecosystems, because motivation influences the perception of the actor and impacts the quality of the interaction process (Turner 1988).

The interaction process therefore, denotes what social actors actually do when they interact i.e. the mechanics of social interaction where actors regulate their behaviour, while signalling and interpreting the behaviours of others simultaneously (Turner 1986). Using the model which separates motivation and the interaction process provides insight into both the 'why' in motivation, and the 'what' that occurs as social actors interact (Turner 1988). In the case of this research, the 'what' to be focused on during social interaction in the entrepreneurial ecosystem is social value creation.

Narrowing down the 'what' of this research's inquiry to social value creation adds a scope to the purpose of the research – i.e. delineating what occurs as social actors enact entrepreneurship within a specific frame of reference, as other forms of value such as economic are also being created synchronously but will not be focused on in this research. The research will thus act as a guide to the reader on the dynamics of integrating into, and developing personal values in the entrepreneurial ecosystem through the mechanism of social interaction.

Lastly, the structuring process, which is the environment in which social interaction occurs, can have both a positive and negative impact on the motivation of individuals and the interaction process (Turner 1988, Arfan 2021). Expanding on the relationship of the structuring process of the entrepreneurial ecosystem, the motivation of the entrepreneurs, and the interaction process will ensure a full appreciation for the operative dynamics of the entrepreneurial ecosystem and thus, how social, amongst other values, is created and sustained.

Using the social interaction model, this study makes momentary individualistic inquiry into the nature of social interaction within the context of the entrepreneurial ecosystem (Ellis 1999). Also, from the aforementioned understanding of the adopted social interaction framework, it is possible for this research to evaluate how the interaction process is influenced by the provided structure of the entrepreneurial ecosystem, as well as the motivation profile of the entrepreneurs.

To fully understand the implication of this opportunity, the research will commit to traversing the conceptual fragmentation that has burdened research into entrepreneurial ecosystems by reviewing relevant literature and synthesizing the basic features of the entrepreneurial ecosystem and how it functions, before methodologically evaluating how it promotes entrepreneurial enactment and social value creation (Cao and Shi 2021). Using this approach will illuminate the functional nature of the entrepreneurial ecosystem and how its components (including social actors) interact, thereby revealing perspectives on how a nascent actor may integrate into a system that has been presented as a convolution. The literature review will seek to delineate the interrelationship between the motivation, interaction process and the structuring process within the entrepreneurial ecosystem, providing an understanding of how each of these elements causally influence each other to create value.

This research is necessary to promote the adoption of the entrepreneurial ecosystem globally, as social actors need to be presented with entrepreneurship holistically, given that they are both drivers and direct stakeholders in the practice. More so, it is necessary that new approaches should be taken to reconcile entrepreneurial ecosystem theory globally in creating a basic understanding of the topic, as more societies and social actors such as academics, policy makers and practitioners, continue to research and adopt the entrepreneurial ecosystem

approach as a socio-economic intervention for economies (Seigner et al. 2018, Stam and Ven 2019, Saebi et al. 2019).

1.1 Research Aim and Objectives

This research aims to evaluate the role of entrepreneurial enactment in social value creation within the Aberdeen Ecosystem.

In order to achieve the underlying aim, the objectives of this research are;

1. To evaluate entrepreneurial enactment within the entrepreneurial ecosystem.
2. To investigate social value creation within the Aberdeen entrepreneurial ecosystem.
3. To develop a framework for capturing social value creation within entrepreneurial ecosystems.

1.2 Research Questions

The research will use a structured narrative to explore how the socialised nature of entrepreneurship within the entrepreneurial ecosystem leads to social value creation theoretically. The research will then seek to provide empirical proof for this claim. This process will involve thematically evaluating and providing evidence on how engaging in entrepreneurship impacts social actors first, before translating its benefits to the society as a whole. To achieve this goal, the research will thus answer the following underlying research questions:

1. How does the entrepreneurial ecosystem promote entrepreneurial enactment?
2. How does entrepreneurial enactment promote personal value creation?
3. How does personal value creation lead to social value creation within the entrepreneurial ecosystem?

1.3 Research Rationale

Research has shown that personal value systems play a direct role in the decision-making process that shapes the personal and social lives of individuals which they express in their career, lifestyle or religious practices (Kim 2020). Indeed, the personal values which provide an individual a daily-criteria for choice, judgement and preference, have recently proven to be a valid approach to predicting

entrepreneurial intent (Tomczyk 2013). Research into personal values and entrepreneurship is however, often limited to creating value profiles and determining who will become an entrepreneur and who will not (Conger 2012, Gaponenko et al. 2021). While this makes some contribution to the practice of entrepreneurship, it however blindsides nascent entrepreneurs who might be deemed as not suitable for the entrepreneurial pursuit because of their current value profiles or lack of information. In adopting the personal value creation approach, this research seeks to inform how the practice of entrepreneurial intent can create personal values, impacting the motivation profile of individuals within the entrepreneurial ecosystem, thereby promoting integration and adoption of the entrepreneurial ecosystem approach system even further (Hueso et al. 2021, Breuer et al. 2021).

Because the social values which guide interaction within the entrepreneurial ecosystem is guided by entrepreneurial norms, individuals are motivated to practice and re-enact these norms daily which they mould to become values through experience and learning (Anderson and Korsgaard 2011, Hormiga 2021). In fact, the research seeks to reveal how the success of a nascent entrepreneur within the entrepreneurial ecosystem is seen as closely linked with their ability to imbibe these entrepreneurially prescribed norms through practice, in developing old and creating new personal values (Ghosh 2021).

Understanding how personal values can be created is necessary for the reader, as research shows that when individuals understand their personal values and are able to create new ones by engaging in a lifestyle enabling activity, they tend to live more happier and fulfilled lives (Sherman 2021). The happier people are with their lifestyle decisions, the more motivated they would be to find new ways to support the social or economic system where they can engage in and learn value expressing activities (Frey and Gullo 2021). It is from the richness of this understanding that the research commits to revealing how entrepreneurial enactment is a predicator of social interaction within the entrepreneurial ecosystem. To make this more heuristic, the research will therefore need to explore ‘why’ and ‘what’ happens as entrepreneurs engage in value expressing activities within the entrepreneurial ecosystem empirically.

Aberdeen provides a rational structuring process for carrying on this research, as the region has, and is actively providing resources and infrastructure to support emerging entrepreneurs and the entrepreneurial ecosystem. This region therefore has a rich supply of nascent and veteran entrepreneurs which offers the research access to a rich amount of data in turn. More so, the research seeks to reveal the process that underlies social value creation as a result of entrepreneurial enactment within the region by addressing the research questions and objectives.

1.4 Research Context

Aberdeen experienced a 77% increase in the number of incorporated software and programming businesses in 2018 as compared with the previous year, and the region also houses more than 20% of Scotland's successful businesses on a broader spectrum (Invest Aberdeen 2021). The North-eastern region of Scotland is characterized by a concentration of over 3,000 investors, and 23 incubators and accelerators officially listed on the government site (Mygov.scot 2021). Scotland heavily relied on the Oil and Gas sector in the past, but the country is actively working on establishing itself as a post-modern entrepreneurial ecosystem by implementing policies and funding to promote start-up growth which the government believes would protect and make a relevant contribution towards the economic value of the region (Aberdeencity.gov.uk 2021; Mygov.scot 2021).

In 2018, PaymentSense ranked Aberdeen as the top location in the UK for starting up new ventures after considering factors such as diversity of the economy, quality of technological infrastructure and self-employment rates. The Guardian (2016) considered indices such as survival rates of start-ups over 5 year (54 percent), having the ninth highest level of start-up growth, cost efficiency, as well as access to talent and skilled labour as considerations. The indices positioned Aberdeen ahead of London, Oxford and Manchester as a more attractive emerging entrepreneurial ecosystem where nascent entrepreneurs can experience higher survival rates for their businesses (PaymentSense 2018, Strachan 2019). As a result, the region has turned to entrepreneurs and the innovative start-up approach to recover the public and private sector.

To facilitate the recovery, the government dedicated £8 billion infrastructure which it hopes to deliver before 2030 towards making the region a world-class business location by supporting food, drink businesses, agro-based businesses, tourism and

digital entrepreneurship (Strachan 2019). Indeed, this is commendable of the government, but social actors are responsible for running these start-ups that will play a vital role in the development and protection of the economy. However, research into the challenges and benefits of emerging entrepreneurial ecosystems often border around technical, economic and social impact of small businesses rather than the challenges of the nascent entrepreneur making this research invaluable in its time (Igbal and Ahmad 2021).

1.5 Research Approach

To evaluate social value creation as an outcome of entrepreneurial enactment within the Aberdeen entrepreneurial ecosystem, the research took a purely qualitative approach.

An extensive literature review was undertaken to synthesise relevant findings, models and frameworks from academic journals across the schools of entrepreneurship, sociology, psychology and management. This knowledge is then used in the development and design of a conceptual framework for capturing social value creation and then tested methodologically.

Primary data is synthesised and analysed in developing findings in the research, where non-probabilistic sampling was used in recruiting participants who were then issued a semi structured interview. An interview protocol containing eight guided questions was designed prior to the data gathering stage. The interviews were then carried out and recorded online using the Microsoft Teams video conference app with the consent of the participants. The data was then analysed using a qualitative analysis software tool, NVIVO20 in identifying key themes and patterns used in answering the research questions.

The research adopted a flexible design, whereby the researcher made major changes even after proceeding from design to research (Stake 1995). This approach involved the researcher beginning the development of the literature review at the onset of the research using only the research questions as a guide. Allowing changes as the research developed ensured all fundamental themes are captured, contributing to the robustness of the research.

Chapter 2 Literature Review

2.0 Introduction

Creating knowledge that takes a cross disciplinary approach in synthesising relevant literature requires statutory groundwork. This section seeks to do so through the evaluation of relevant concepts, delivered in a series of subsequent structured narratives. This process enables the development of a theoretical framework for the research.

The main concepts reviewed and discussed in this literature review include entrepreneurship, entrepreneurial enactment, social value concepts and ecosystem theory. This is carried out heuristically and systematically by developing an understanding of the research topic and addressing the research questions.

2.1 Entrepreneurial Enactment

The creation of a new venture in an entrepreneurial ecosystem is a complex and idiosyncratic process that begins with the aspirations of the entrepreneur, followed by assembling of resources that the entrepreneur does not necessarily own or control to pursue an opportunity (Edelman and Yli-Renko 2010, Donaldson and Mateu 2021). It is the entrepreneur's ability to assemble these resources, and also amass support and gain enough commitment from relevant stakeholders to translate his vision to reality that defines success within the entrepreneurial ecosystem (Donaldson and Mateu 2021).

The discovery view in entrepreneurship attributes the process of new venture creation as a fit between the capacity of entrepreneurs, and the prevailing environment which they exist in (Tu and Yang 2013). Adopting this view, entrepreneurship in the ecosystem is seen as the ability of the entrepreneur to discover pre-existing opportunities presented in the environment, assess his capabilities to exploit these opportunities, and mobilise himself and available resources towards exploiting these opportunities successfully (Kuckertz et al. 2019). A fit between resource profiles i.e. entrepreneurial knowledge, skills and experience, and entrepreneurial projects in the ecosystem is a positive driver for cultivating efficiency within the entrepreneurial ecosystem. This is because the entrepreneurial ecosystem depends heavily on the ability of entrepreneurs to have

the capacity to mobilize themselves and resources towards opportunities which present themselves (Jones and Ratten 2021). To address the capacity issue, entrepreneurial learning in the ecosystem often takes futuristic and innovative approaches to ensure entrepreneurs are aware of opportunities in their environment while improving their capacity to pursue these opportunities (Gheorghiu et al. 2021).

Opportunities in the entrepreneurial ecosystem from a discovery view is therefore, perceived to be pre-existing in the environment of the entrepreneurial system in the form of changes in consumer preference, technology, or socio-economic structure (McDonald et al. 2015). Thus, success within this paradigm is considered to depend on the appeal of these opportunities and availability of resources, as well as the entrepreneur's capacity to recognise these opportunities and mobilise himself and his resources towards exploiting it (Agarwal 2004, Lee 2012, Tu and Yang 2013).

On the other hand, the creation view of entrepreneurship sees opportunities as actively constructed in the minds of entrepreneurs – where in the entrepreneurial ecosystem, each entrepreneur is an active organizational participant operating on a mental model (Johnson et al. 2019). While this mental model in itself is not entirely definitive, it enables the entrepreneur to succeed by articulating a clear vision out of an otherwise enigmatic environment to other relevant stakeholders to gain support and resources to enact his vision (Donaldson and Mateu 2021). This means that rather than focusing on the objective characteristics of the entrepreneur and the environment, the creation theory focuses on the creation of opportunities and the entrepreneurial environment through the practice of entrepreneurship among collocated individuals.

The environment of the entrepreneurial ecosystem is therefore, seen as being actively created in the minds of the entrepreneurs, and only exists when social actors interact entrepreneurially among themselves and other relevant stakeholders (Donaldson and Mateu 2021). Opportunities are therefore, seen as subjective perceptions that are created through the agency of cognitive entrepreneurial perceptions, translated in interaction among social actors within the entrepreneurial ecosystem (Johnson et al. 2019).

An Evaluation of discovery and creation views of entrepreneurship offer contrasting perspectives to the motivation of entrepreneurs within the entrepreneurial ecosystem. The discovery view proposes that the pre-existence of structure and opportunities in the entrepreneurial ecosystem acts as the motivation for entrepreneurial action and subsequent performance of ventures. The creation view proposes that motivation is embedded in the cognitive process of entrepreneurs expressed as pattern recognition and proactiveness used in creating opportunities which are exploited there-after (De Clercq and Voronov 2021). These views are however, limited in capturing entrepreneurship holistically when applied independently because entrepreneurship should no longer be treated as a personalised psychological or purely scientific process. Entrepreneurship should, however, be approached as a social process which can be observed among a group of individuals, for example, in capturing how it guides the contemporary social system of business and capitalism (Donaldson and Mateu 2021).

Both discovery and creation views of entrepreneurship however inform the motivation of social actors as they express their entrepreneurial knowledge, skill or orientation within the entrepreneurial ecosystem practically during social interaction. Entrepreneurial knowledge, skill and orientation is rooted in theoretic learning from these schools of thought on entrepreneurship, more so, norms within the entrepreneurial ecosystem are often prescribed from this knowledge.

Entrepreneurial enactment seeks to bridge the gap between discovery and creation theories of entrepreneurship in the social research of entrepreneurship within the entrepreneurial ecosystem. Opportunities are exogenous states like in discovery theory, as well as social constructions formulated by the mental models and perception of the entrepreneurs within the entrepreneurial ecosystem (Johnson et al. 2019, Donaldson and Mateu 2021). The next section will explore how the entrepreneurial ecosystem emphasises and promotes entrepreneurial enactment as a social practice.

2.1 Entrepreneurial Enactment as a Social Practice

New anthropological paradigms point to the integration of entrepreneurial knowledge and practice in the cultural image of social actors within societies (Donaldson and Mateu 2021, De Clercq and Voronov 2021). This paradigm is fostered by the increased adoption of the contemporary capitalist environment

known as the entrepreneurial ecosystem, which provides normative entrepreneurial templates on what roles actors are to play, and how their day-to-day practices should interrelate with institutions and other actors in the society (Stam and Van De Ven 2021). These templates are recommended on the basis that commercializing an idea is a collective achievement of multiple entrepreneurs, who as socio-culture beings, develop the industrial infrastructure that may facilitate or constrain innovation and economic activity (Van De Ven 1993, Stam and Van De Ven 2021). The enactment of these entrepreneurial norms is also seen as a mode of legitimizing who is allowed to be part of the ecosystem society and who can control what amount of resources (De Clercq and Voronov 2021). Entrepreneurial enactment may then be observed as a need to be expressed for social actors who plan to succeed within the entrepreneurial ecosystem.

An example as stated is seen among persons living within the sustainability themed entrepreneurial ecosystem of Friland who started the settlement along its initiative to protect the environment (Anderson and Korsgaard 2011). Regardless of their backgrounds, new settlers were prescribed social norms such as *universalism* which pertains concern for the welfare of nature, and *conformity* in respecting the lifestyle practices of members of the entrepreneurial ecosystem when considering settling and starting a business in the region (Anderson and Korsgaard 2011, Schwartz 2012). In this illustration, social norms expressed in religious inclination and practice wouldn't be generally promoted, however, individuals would be motivated to express religious values if these values align with the social values of the entrepreneurial ecosystem (Chan 2019).

Entrepreneurial enactment is therefore observed, as the motivation, as well as the prerequisite in social interaction that enables new members of the entrepreneurial ecosystem integrate and thrive within the network of the entrepreneurial ecosystem. As new social actors adhere to, practice and align themselves with the entrepreneurial norms, cultures and other social values of the entrepreneurial ecosystem, these social actors are recognised for their expanded capacity and are entrusted with more responsibility (Schwartz 2012, Pesce et al. 2019). Within this context, entrepreneurial enactment therefore serves as an expression of observable personal values within the ecosystem, as social actors are prompted to interact purposively using entrepreneurially prescribed norms, and only gain recognition through expressing these norms synchronously.

Personal values are fundamentally defined as socially desirable concepts which are used to represent goals mentally, and the vocabulary used to express them in social interaction (Schwartz 2012). Personal values represent the motivation that regulates how social actors are proactive or reactive during social interaction (Schwartz 2012, Azomiv et al. 2020). When personal values align with tasks, social actors are motivated to engage in value-expressive activities around that task more frequently, hence entrepreneurs are drawn to the entrepreneurial ecosystem where they can re-enact personal values embedded in entrepreneurship re-currently.

Indeed, the mental model that entrepreneurs in the entrepreneurial ecosystem adopt in social interaction to engage in value-expressive activities is embedded in entrepreneurial enactment (Johnson et al. 2019). As nascent entrepreneurs seek credibility from incumbents in the entrepreneurial ecosystem, the incumbents indirectly mould and shape their personal values by prescribing social norms based on entrepreneurial education, learning and experience (De Clercq and Voronov 2021). In the same way, the incumbents also look out for evidence of personal values typified in entrepreneurial enactment during social interaction with nascent entrepreneurs as a method of evaluating their credibility, even in a purely capitalist environment (Dalila et al. 2020). This is because personal values play a significant role in intent and pursuit of goals and so for an entrepreneur to thrive, their personal values must align with the social values of the entrepreneurial ecosystem and the values of the goals which they plan to succeed in, otherwise, nascent social actors must be open to creating and developing new personal values (Prasetya and Wibawa 2020).

In personal growth and development theory, personal value creation may also constitute a disruption of the social actor's personal value system (Prasetya and Wibawa 2020). As entrepreneurs influence each other's values and motivations during social interaction within the entrepreneurial ecosystem, they continue to disrupt each other's personal values even when their primary goals may or may not perfectly align (Schwartz 2012, Chan 2019, Gokel's 2020). Through entrepreneurial enactment, the entrepreneur is able to create, grow and develop new personal values through transfer of information and skills, and transfer of encouragement and motivation while engaging in entrepreneurial enactment as a social practice (Meltzer et al. 2020).

Other ways entrepreneurs experience personal value creation as they disrupt and develop their entrepreneurial capacity includes learning and practiing entrepreneurial education. Perfecting entrepreneurial knowledge and expressing it in social interaction acts as a prerequisite to operate effectively within the socio-cultural settings of an entrepreneurial ecosystem (De Clercq and Voronov 2021). The entrepreneur is viewed in entrepreneurial ecosystem theory as being more interdependent and interactive within a network of social actors who constantly enact entrepreneurship as their social norm (Motoyama and Knowlton 2017). The entrepreneurs are therefore, able to create personal values such as *achievement* which may be felt by the nascent entrepreneur who is finally able to mobilise resources to commercialise an idea (Schwartz 2012). Other examples include *power,* as the entrepreneur is allowed to own and control a larger amount of resources within the entrepreneurial ecosystem, or the feelings of *hedonism* would be expected, as the entrepreneurs experience pleasure and gratification from learning a new skill or helping out a colleague (Schwartz 2012).

Personal value creation, however, takes other forms such as traits passed down from older family members to younger ones, which are then developed into personal values over time through re-enactment and practice (Goksel 2020). These values are often sourced from culture and norms (Pesce et al. 2019), religious practice (Chan 2019), laws (Laukkanen 2020), experience and training (Suhartanto et al. 2020). While researchers such as Goksel (2020) focus on such developed values as indicators for potential entrepreneurial prowess, researchers such as Spengler et al. (2018) emphasise the role of education and environment, as well as the nature of peer interaction in further moulding traits into longer lasting personal values. It is therefore, possible to infer that personal values are constantly moulded and remoulded in the entrepreneurial ecosystem through learning and experience, and mostly facilitated through social interaction (Anderson and Korsgaard 2011).

Recounting Schwartz's (2012) theory of basic human values, it is noted that personal values are grounded in one or more of three universal requirements. These requirements include the person's need to articulate goals, communicate these goals to others, and gain cooperation in the pursuit of such goals in social interaction. Schwartz's claim to these requirements stems from the person's need to engage in social interaction and live in harmony with others. The social

interaction process within the entrepreneurial ecosystem involves synchronously translating and executing goals towards enacting entrepreneurship during social interaction which expresses the personal values of the social actors (Schwartz 2012, Ahn et al. 2020, Goksel's 2020).

2.2 Social Interaction and Personal Value Creation

As indicated in section 2.1, social interaction often leads to the creation of personal values as goals are achieved synchronously. Social interaction is perceived as the process where two persons simultaneously seek to articulate goals, communicate these goals, and seek cooperation towards achieving these goals synchronously (Gupta and Polonsky 2020, Azomiv et al. 2020). The personal value creation process in social interaction may be observed in the entrepreneurial ecosystem as entrepreneurs engage in value expressing activities while regulating their synergy by tapping into prescribed entrepreneurial norms with the aim of translating their ideas to reality (Turner 1988, Scwhartz 2012, Shao et al. 2020, Azomiv et al. 2020, Ahn et al. 2020).

Social interaction in the entrepreneurial ecosystem is indeed necessary in legitimizing and guiding nascent entrepreneurs towards accomplishing goals. It also acts as a medium for the transfer and co-creation of personal values by presenting an opportunity for re-enactment and practice of entrepreneurial traits or prescribed entrepreneurial norms (Pesce et al. 2019). In the entrepreneurial ecosystem, regular purposive social interaction channelled towards the discovery, creation and exploitation of resources creates opportunities for the creation and moulding of basic entrepreneurial traits into longer lasting personal values (Spegler et al. 2018).

Nascent entrepreneurs are compelled to adhere to the norms and culture of the entrepreneurial ecosystem which often exists as field prescribed practices based on entrepreneurial models (Pesce et al. 2019) delivered as educational modules and learning processes (Meltzer et al. 2020), and policy and codes of conduct (Olsson et al. 2020). As entrepreneurs find themselves in regular situations where they consciously and unconsciously re-organise and influence one another in social interaction, they can convert field prescribed norms into formidable personal values through re-enactment and practice (Turner 1988, Shao et al. 2020).

Within the entrepreneurial ecosystem, there is an overarching social "chain of interaction" - i.e., a dynamic that creates a context for meaningful social interaction between two autonomous social actors (Turner 1988, Shao et al. 2020, Azomiv et al. 2020). In the entrepreneurial ecosystem, this chain of interaction is formulated around entrepreneurial enactment, which in turn serves as an antecedent to social interaction within the social structure of the entrepreneurial ecosystem.

As social actors interact while being mindful of the purposefulness of interactions within the entrepreneurial ecosystem, social interaction acts as a medium for the transfer, creation and co-creation of personal values and not just a vehicle for engaging in value expressing activities with others (Suhartanto et al. 2020).

Value co-creation is a term often associated with commercial value, where value is seen as an evaluation of the customer's perception of trade-offs and benefits (Zeithami et al. 1988, Pohjola et al. 2020). In management literature, value co-creation is seen to extend to all resource integrators including customers, the organisation, suppliers and their intermediaries (Agrawal et al. 2015). In a social context however, value co-creation refers to the integration of mindset and goals, organised or applied in a way that social value creation is thus experienced jointly by two or more people (Sanders and Simons 2009). In fact, Sanders and Simons (2009) see the most basic level of personal value co-creation, or rather, social value creation as completing or accomplishing any given goal with another person.

Personal value co-creation can be observed between any two social actors in the entrepreneurial ecosystem – as a society which exists purposefully for the enactment of entrepreneurship creates the opportunity for co-creation of a diverse range of personal values during purposive interaction (Babu et al. 2020, Gupta and Polonsky 2020). As expressed earlier however, personal values of the entrepreneurs often need to align with the social values of the entrepreneurial ecosystem presented as norms or mental models, therefore, it is possible to infer that there is a homogeneous nature to one or more personal values co-created among social actors within the entrepreneurial ecosystem, even if their primary goals do not align (Gupta and Polonsky 2020).

Accelerators for example, act as part of the structure of the entrepreneurial ecosystem's social system which helps in converting personal values to social

values through creating the environment, as well as promoting prescribed norms and reproduced relations between social actors during social interaction (Ovchinnikova and Topoleva 2021, Cunningham et al. 2021). Emphasises on regular entrepreneurial enactment within a short-concentrated period is a prerequisite to successfully completing an accelerator program (Scheidgen 2020). Prescribed social norms which are new to nascent entrepreneurs is drawn from pre-existing social values existent in the entrepreneurial ecosystem, as well as prescribed norms from entrepreneurship theories and experience of the veteran practitioners (Ovchinnikova and Topoleva 2021). During social interaction in the accelerator, the nascent entrepreneur can develop pre-existing entrepreneurial traits, as well as create new personal values that remain long after the program (Scheidgen 2020, Ovchinnikova and Topoleva 2021). The entrepreneurial ecosystem's model of social interaction for entrepreneurial enactment offers a chain of interaction among entrepreneurs which forms a socio-cultural context for interaction, leading to perpetual personal value co-creation, and thus, social value creation (Giones et al. 2020).

When these entrepreneurs are collocated and interact, it creates a society where co-created personal values can then be observed as social values since both are interrelated (Anderson and Korsgard 2011). Azomiv et al. (2020) posits that social values do not exist in themselves, but are observable in reference to the pursuit of a desired goal by multiple actors, and therefore must exist in social interaction between two or more autonomous actors. This understanding makes it clear that personal values are unique from person to person, however, personal values can be shared, co-created and observed, more so, where a chain of interaction such as entrepreneurial enactment exists (Ahn et al. 2020).

The entrepreneurial ecosystem is made up of social actors organised to interact entrepreneurially towards creating and exploiting opportunities (Ghio et al. 2019). Indeed, entrepreneurial ecosystems are societies consisting of independent social actors who interact in such a way that productive entrepreneurship is fostered (Ghio et al. 2019). Purposive entrepreneurial enactment in social interaction between these social actors is what co-creates personal values among them leading to the creation of observable social values which emerging entrepreneurial ecosystems seek to replicate.

In the quest to develop a framework for capturing social value creation, researcher such as Hofstede (Hofstede 2011) offers a value survey constructed around six cultural dimensions using the country as its scope for macro-level integration. His model is applicable when evaluating values from the perspective of existent, or a change in cultural dimensions and its effects on the behaviour of individuals within a country (Gjana and Hysa 2020) and across countries (Sphini 2003, Noorbehbahani and Salehi 2020). While applying Hofstede's model is very insightful, it remains limited since culture and nationality are in fact, only an isolated source of values.

To resolve such limitations, Schwartz (2012) states that personal values are universal and should be grounded in universal requirements- requirements that individuals need as requisites for survival and welfare, expressed in coordinated social interaction. Schwartz (2012) also mentions that individuals are unable to go through life alone, and so personal values or a social value model should seek to articulate individuals' motivation to gain cooperation in the pursuit of their mental goals, and the vocabulary they use in expressing them in social interaction.

As presented in table 3 below, captures Schwartz's (2012) ten universal values are expressed in their definition as a broad goal, their grounding in universal requirements, and related value concepts. Note that personal value concepts which have more than one meaning and tend to serve as motivational goals for more than one personal value are placed in brackets.

Personal Value	**Broad Goal**	**Universal Requirements**	**Value Concepts**
Self-direction	Independent thought and action expressed in decision, creativity and exploration.	**Need** for control, mastery, satisfy curiosity, autonomy and independence.	Creativity, freedom, decision, curious, independent (Privacy, intelligence, self-respect).

Stimulation	Excitement, novelty and challenge in life.	**Need** for variety and level of activation for an optimal and positive life. Often underlies self-direction values.	A varied, exciting and daring life.
Hedonism	Intrinsic pleasure or gratification.	**Need** for pleasure and satisfaction.	Pleasure, self-indulgence, enjoying life.
Achievement	Personal success often defined by demonstrating competence by social standards.	Achievement often leads to acquiring resources which individuals **need** to survive and often leads to gaining social approval.	Ambitious, successful, capacity, influence (intelligence, social recognition, self-respect)
Power	Social status, prestige, dominance or control over people or resources.	The **need** for social institutions to have some degree of status differentiation has made power an accepted value. It is viewed as a transformation of the individuals **need** for	Authority, wealth, social power (Public image, social recognition) Individual seeks to gain power within social system as opposed to through

		dominance and control.	successful performance.
Security	Safety, harmony, stability of social relationships and self.	The **need** to preserve one's self or a group, where the group is determined by the person who identifies with it.	Social order, family order, national security, reciprocity of favours. (healthy or moderate sense of belonging)
Conformity	Restraint of actions, inclinations or impulses that would threaten expectations and norms.	Practicing self-restraint due to the **need** for smooth interaction and group functioning.	Obedience, self-discipline, politeness, respect for others. (loyal, responsible)
Tradition	Respect, commitment and acceptance of one's culture or religious provisions.	Shared practices, symbols, ideas, beliefs developed and reinforced in the **need** for the group's solidarity, expressing the groups uniqueness and for survival.	Respect for tradition, humble, devout (Spirituality) Conformity and tradition have similar motivational premises however,

			conformity refers to subordinating one's self to persons whom one interacts with daily - parents, teachers and bosses, tradition refers to more abstract concepts such as culture and religion.
Benevolence	Preserving and enhancing welfare of those constantly around the individual.	The **need** for smooth group functioning and the **need** for personal affiliation.	Helpful, honest, forgiving, responsible, loyal, loving. (sense of belonging, purpose in life, spirituality) Like conformity, benevolence promotes cooperation and supportive

			social relations.
Universalism	Understanding, appreciation, tolerance, and protection of all people and for nature.	The **need** to accept all within and outside one's primary group. This creates an understanding of universal interrelationship and interdependence which births two subgroups of concern – the welfare of those in the larger society and world, and the welfare of nature.	Social justice, open-mindedness, equality, peace, unity, wisdom, environmental protection. (Inner harmony, a spiritual life)

Table 1 Schwartz's (2011) Universal Personal Values.

In an earlier version of this framework, Schwartz (1992) intended to include spirituality as a distinct value, where the defining goal for spirituality is expressed in the need to find meaning, inner harmony, and unity with nature in transcending everyday reality. This was however dropped entirely due to an absence in consistency when it came to giving meaning to spirituality in cross-cultural contexts (Schwartz 2011). One is however drawn to question if spirituality can be represented as motivation in social research. And if so, could entrepreneurial enactment define spirituality across entrepreneurial ecosystem contexts?

In adopting Schwartz's (2011) framework, the research will develop an interview guide that focuses on capturing various accounts of social interaction during value expressing activities within the entrepreneurial ecosystem from participants, and

then cross-reference the data with related value concepts thematically. This process enables the research capture social value creation, as the table offers a code book to analyse participant responses thematically in revealing personal value creation and co-creation from their reported accounts of social interaction within the entrepreneurial ecosystem.

Evaluating Luhmann's (1995) framework of the post-modern society which has been used in empirical research (Gren and Zierhofer 2003, Valentinov 2019), the entrepreneurial ecosystem shows evidence of all three features of a social system (fig 2). The presence of societies made up of social actors, the organisation of social actors using models based on entrepreneurship, and the interaction between these social actors towards entrepreneurial enactment.

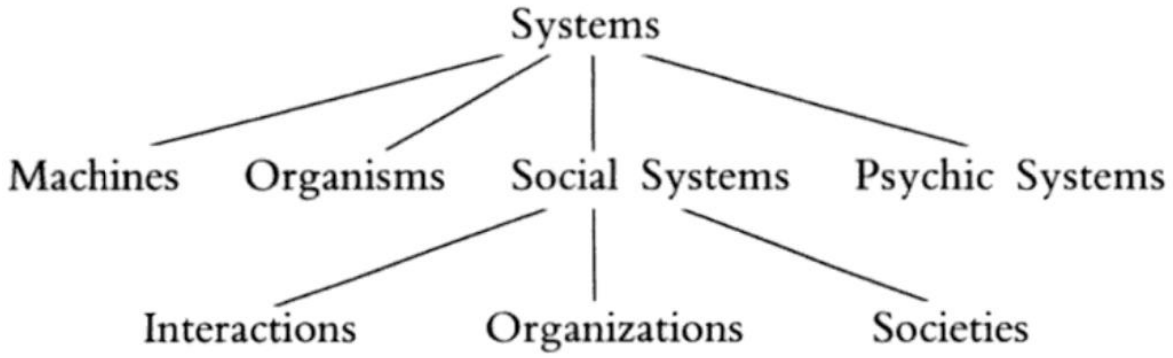

Figure 2 Three Level Analysis and the Position of Social Systems (Luhmann 1995)

This research seeks to shed more light on the entrepreneurial context and dynamic capabilities of social actors within the entrepreneurial ecosystem which they use to integrate, build and reconfigure internal and external resources along social networks as they interact functionally (Teece 2012). In order to understand entrepreneurial enactment as a social norm, it is important to understand the socialised nature of entrepreneurial enactment within the entrepreneurial ecosystem objectively. The goal is to provide a solid foundation for this research that enables the reader develop insights on entrepreneurial enactment within the ecosystem and its benefits thereof, through the simple mechanisms of social interaction. Therefore, the next section will seek to edify the nature of the social interaction process within various contexts of the entrepreneurial ecosystem from

a functional perspective, drawing more light on the interrelationship between the motivation and interaction process among entrepreneurs.

2.3 The Interaction Process and the Entrepreneurial Ecosystem

The entrepreneurial ecosystem is an integrated social ecosystem made up of a vast number of interactive components whose function is to enact entrepreneurship for value creation (Roundy et al. 2018). Silicon Valley, Auckland and Tel Aviv are examples of locations which are characterised by the physical amalgamation of entrepreneurial actors. These social actors include entrepreneurs, firms and institutions which collaborate, integrate and govern resources within the region by interacting in a way that makes it possible for themselves and the territory to flourish and remain sustainable (Stam and Ven 2019).

Social interaction is often investigated informally in the paradigm of friendship and advice (Bondonio 1998). Research has however shown that the perception of the social actor to an entire social network has a functional impact on the interaction process within a network (Kurtz et al. 2019). Social interaction networks within the entrepreneurial ecosystem are key in the exchange of information and resources between social actors and therefore, acts as a vehicle for meaningful value creation within its social system.

The relevance of meaningful social interaction is seen to have impact in community building (Kurtz et al. 2019) and international relations (Apaydin et al. 2020), as well as intra and inter organizational performance (Germann and Ingrid 2011, Hommes et al. 2012, Whelan 2016). Due to the integration and complexity of the entrepreneurial ecosystem, understanding how it functions through its components is necessary to fully process the nature of social interaction within this system (Kushida 2015). Therefore, this sub-section seeks to use a functional approach to capture the interaction process within the featured components and elements of the entrepreneurial ecosystem.

2.3.1 Pro-activeness

Pro-activeness within the entrepreneurial ecosystem supports innovation due to the existence of demand uncertainty and limited access to resources, especially for the nascent entrepreneur (Teece 2012, Meltzer et al. 2020). Demand

uncertainty refers to factors that make it easy or hard to predict the demand for a particular product, whereby often times, a right prediction leads to a successful venture (Shi et al. 2021). Until recently, cars and electronics have had a long product life cycle which gives them stable demand, as opposed to traditional entrepreneurial ecosystem products which are easily disrupted and have a relatively short life cycle due to factors like a change in technology or a change in customer preferences (Lee 2002, Stock et al. 2021).

An example is seen in the case of high-tech start-ups which have become the most common type of start-up in the entrepreneurial ecosystem. High-tech start-ups often create robust software but often face the challenge of finding existing customers who will be direct beneficiaries of their technological innovation while it is still relevant. In the process, entrepreneurs have to proactively interact with stakeholders by campaigning to create a market, or by modifying their product to satisfy a specific market (Velente et al. 2018).

In retailing, start-ups such as Kibo Commerce invest in the creation of reliable omnichannel delivery and fulfilment services through integrating legacy point of sale systems to traditional processes of buying online and pick up in-store (Chen and Su 2021). Other high-tech start-ups such as Apple also exhibit omnichannel supply chains offering options such as online and delivery purchases, online purchases and in-store pickups, in-store purchasing, and most recently, aligning with Amazon to further expand these channels (Apple.com 2021). Omni channels ensures customer satisfaction and loyalty, as well as competitiveness and sustainability across the supply chain of an organisation. And so, in many cases, entrepreneurial ventures often interact to ensure they are all achieving their objective of customer satisfaction.

Proactiveness is seen as a result of entrepreneurial enactment by the start-up, or various start-ups' founders' ability to take the extra step in being creative and interacting with one another to deliver omni channels (Adivar et al. 2019).

In the global market where customers tend to have constantly changing tastes and preferences, the ecosystem is designed to proactively satisfy these needs regardless of externalities which will require entrepreneurs to modify their internal operations (Aman et al. 2021). Entrepreneurs, organisations and resources within the ecosystem are organised in such a proactive manner that they can be rapidly

mobilised along its social networks. The entrepreneurial ecosystem in itself is thereby, proactive by nature.

2.3.2 Cooperation and Collaboration

Unlike the traditional business environment in management theory which exhibit defined operational processes that offer a means for an objective performance measurement, entrepreneurial ventures in the ecosystem are characterized by a continuous process of optimizing resources which are both limited and often out of their control (De Clercq Voronov 2021). This situation often gives less room for prioritizing long-term planning because attention must be paid to the issues that need addressing immediately (Isacsson and Kittle 2019). Due to resources limitations, entrepreneurs must have and exhibit a high level of competency in cooperation and collaboration across the networks of the entrepreneurial ecosystem as they interact to gain support and resources.

Collaboration refers to the potential for alignment of independent actors, whereby cooperation refers to their willingness to do so (Tee et al. 2019). The argument here holds that where collaboration is possible, there must be a level of cooperation to ensure this relationship can be realized practically, therefore enabling value creation during social interaction.

It takes a high level of cooperation and collaboration to integrate and align operational processes between entrepreneurs, start-ups and incumbent firms due to differences in their primary objectives (Kusa et al. 2019). Objectives among start-ups is to scale through access to resources, while incumbent firms seek to exploit the latest skills and technological innovation which nascent entrepreneurs and start-ups bring as enablers to achieve marketing or supply chain efficacy (Kusa et al. 2019, Tee et al. 2019). As a function of entrepreneurial enactment in interaction, both parties must view this relationship as an opportunity before they can deem it fit to cooperate externally. Kusa et al. (2019) noted that there is a strong correlation between collaboration and entrepreneurial behaviour between independent actors.

2.3.3 Open Innovation

Open innovation may be defined as the purposive use of inflows and outflows of knowledge to accelerate internal innovation, and for expansion of the market in

the entrepreneurial ecosystem (Alberti and Pizzurno 2017). Open innovation acts as a vehicle for nascent entrepreneurs and start-ups to reduce the time, cost and risks it takes to successfully go to market, while giving them access to resources such as finance and expertise within the entrepreneurial ecosystem (Alberti and Pizzurno 2017). Components of the entrepreneurial ecosystem such as the accelerator, living labs and open labs often constitute both for-profit and not-for-profit investors which offer open innovation to nascent entrepreneurs. These actors offer both information and infrastructure that promotes the growth of businesses and opportunities for social interaction of with other entrepreneurs towards coordinating each other and resources to realize economic and social values within the entrepreneurial ecosystem (De-Silva and Wright 2019).

Open innovation makes it possible for entrepreneurs to solicit external partnerships in facilitating the integration and commercialization of innovation (Park and Panagopoulos 2019). It also enables incumbent firms to hand over responsibilities like creating and managing of innovative practices into their businesses to nascent entrepreneurs and start-ups who show innovative capacity (Park and Panagopoulos 2019). Open innovation synchronously promotes high-value-added competition for nascent entrepreneurs and start-ups in form of large investments in research and development within the entrepreneurial ecosystem, linking entrepreneurs with the complex network of actors within the entrepreneurial ecosystem (Rycroft 2007). This further enables start-ups carry on tasks that border around their entrepreneurial competencies while getting access to relevant resources.

The entrepreneurial initiative of open innovation requires collaborative activity underlined by trust, mutual respect, authority, resource to act, and open communication internally and externally. It also requires an absence of incomprehensible, limiting and redundant rules (Kahn et al. 2005). For example, In Aberdeen, the Oil and Gas Technology Centre runs an open innovation program which creates networks, pools, ideas and funds towards unlocking opportunities and potential in the UK North Sea (Theogtc.com 2021). Other entrepreneurial activities that facilitate open innovation include in- and out- licensing, alliances, technology scouting, corporate venturing through direct shareholding, and indirect venture capital funding (Kahn et al. 2005).

2.3.4 Accelerators

Accelerators are key entrepreneurial actors in the entrepreneurial ecosystem which aid the transition of nascent entrepreneurs into formidable incumbent players through the provision of resources, structured support, and enhancing interaction between entrepreneurs and relevant stakeholders, enabling start-ups scale up and thrive (Brown et al. 2019). While accelerators adopt different frameworks regionally, their basic functions across various entrepreneurial ecosystems includes supporting entrepreneurship and innovation through the validation of ideas and products, the provision of product development and models learning, and creating access to markets for start-ups (Crisan et al. 2021).

The entrepreneurial function of the accelerator is to speed up the scaling process of start-ups in an ecosystem through the introduction of 3-6 months intensive programs with mentorship, knowledge diffusion and investment (Tripathi and Oivo 2020). Accelerators act as an environmental agency of entrepreneurship which makes it possible for entrepreneurs to have purposeful social interaction, while being introduced to innovative educational modules channelled towards both business and personal development (Saripah et al. 2020). Accelerators may operate in both for-profit and non-profit scenarios in the entrepreneurial ecosystem, with the potential to create both economic and social value through creating the environment, prescribing and promoting entrepreneurial enactment in the ecosystem. A majority of entrepreneurs and ventures mention a key driver of their successes had to do with the operations of the accelerator, where the accelerator has carved out a place for itself as a beneficial, and most likely replicable intervention in the growth journey of nascent entrepreneurs and start-ups in the entrepreneurial ecosystem (Hallen et al. 2020).

In Aberdeen, TechX is a major technology accelerator in the oil and gas industry with a focus on accelerating the development of technological ideas in the industry through funding, mentoring and support (Committees.co.uk 2019). Other accelerators include AB Venture Zone, Data Lab, Horizon Scotland and Pathfinder Accelerator. Accelerators also support and promote the practice of other entrepreneurial activities such as open innovation and collaboration.

2.3.5 Patent Portfolios

Patent portfolios support the entrepreneurial strategy of open innovation through the mechanism of takeovers and acquisition. Patents are used as bargaining power by incumbent firms, where they are able to include future deals into their current portfolio as they invest in nascent entrepreneurs and start-ups (Park and Panagopoulos 2019). As a function of opportunity recognition and exploitation (Acs et al. 2009, Isacsson and Kittle 2019), patent portfolios function to enable start-ups close financing gaps, while giving incumbents a means to exploit incumbent and start-up competencies in the entrepreneurial ecosystem (Jarchow and Rohm 2019). Patent portfolios makes it possible to allocate financial resources as a historical quality signal for future investors within the entrepreneurial ecosystem (Hsu and Ziedonis 2008, Rutkauskas et al. 2011), as well as serving as an information and communication asset (Comino et al. 2019).

Research shows that patents often stand as a barrier to entry into market due to high costs (European Economic Blogs 2021). Patents however act as a supporting legal framework for entrepreneurs at a time when intellectual property and patenting has become an important resource in entrepreneurship, enabling entrepreneurs protect intangible ideas through providing legal security against the threat of being copied (Journalonline.co.uk 2019). Patents also have the potential to be securable assets which hold value, even if the start-up venture built on that idea fails (European Economic Blogs 2021). This means that it is possible to use patents to transfer both knowledge and financial resources among entrepreneurial actors within the entrepreneurial ecosystem.

Scotland is an example of an economy that has a strong recognition for the creative industries where patenting has become an important resource (Journalonline.co.uk 2019). Support for the adoption of patent portfolios across industries within the region is shown through the provision of free IP clinics to help on trademark registration, sharing information on how to protect your IP, patenting ideas and innovation, and safeguarding of copyright (UK Gov 2021). The term patent which was first coined by Henry Chesbrough of the University of California, posits that organizations can and should use both internal and external ideas and paths to market entrepreneurially in accelerating innovation (Kahn et al. 2005).

2.3.6 Capital Venturing

Venture financing is a primary function of Venture capitalists. Venture capitalists are incumbent entrepreneurs who own, control and have access to a large amount of resources within the entrepreneurial ecosystem (Gorman and Sahlman 1989, Hegeman and Sorheim 2021). The venture capitalist's investment is governed by entrepreneurial opportunity recognition using their capacity from specialised training and experience within the entrepreneurial ecosystem (Marx and Hsu 2019).

Traditional Venture Capitalists are mainly interested in financing nascent entrepreneurs and start-ups with potentially scalable business models that can return investments within 5-7 years, bringing in managerial skills and expertise in the process (Kim 2019). Corporate Venturing on the other hand may be internal (funding a start-up within an existing incumbent firm) or externally (either indirectly through VC funds or directly by a large investment company). Investment here is defined by larger companies taking equity in an entrepreneur or start-up's innovation with the objective of realizing certain competitive objectives such as technical or marketing competencies (Kahn et al. 2005). Venturing is a practice that enables incumbent companies to acquire viable start-ups through the evaluation of technologies and application of possible future potential of a start-up's business model. Venturing also makes it possible to assess possible integration between start-ups and incumbent organizations in the entrepreneurial ecosystem.

While venturing always seems attractive to the nascent entrepreneur and start-up whose general prerequisite to scale is financial investment in resources and strategy, research shows that most of the venture-capital backed start-ups go bankrupt (Nanda and Rhodes-Kropf 2013). The research proposed creativity and a willingness to fail as an add on initiative that would lead to successful scaling of start-ups. When entrepreneurs constantly practice enacting entrepreneurial behaviour creatively after venturing has taken place, more disruptive and successful start-ups are created. Nanda and Rhodes-Kropf (2013) also suggest that low investment cycles are also seen beneficial to start-up founders since start-ups can gain more leverage and anonymity in decision making when venture capitalist generally request for lesser percentages in shareholdings during these periods.

Venture capitalists in Aberdeen are made up of a mix of private individual investors, firms and public agencies. The entrepreneurial ecosystem promotes the presence of these investors through inclusion on official government and institutional websites, and by leveraging their ability to fund accelerator programs and social networks where they invest in entrepreneurial ideas.

2.3.7 Crowdsourcing

Crowdsourcing is a typical function of internet-based start-up firms, where start-ups outsource or open their business model to external investors to mobilise resources that create or capture the value of their start-up (Channal et al. 2010, Djelassi and Decoopman 2013). Rae (2019) proposes outsourcing elements such as labour, problem solving and innovative strategy to start-ups by incumbents, thereby contributing to the overall success of the entrepreneurial ecosystem.

An example of a company with this business model is Uber, where the rigorous activity of cab hailing is conveniently transformed into a mobile application. The start-up cannot capture value without the functioning of drivers, as Uber doesn't own any cars or run transport logistics in the field (Huws 2015). Other examples include Air Bn'B who don't own houses and Amazon who do not own a retail production line.

Other ways crowdsourcing maybe implemented is through collective creativity where cost is cut on research and development by capturing knowledge externally (Dahlander and Magnusson 2008). An example is the case of Wikipedia which uses open-source coding to allow peer reviews (Aljazeera.com 2019). Crowdsourcing is also used to solve complex problems where each player is assigned specific objectives that fit into the whole aim leading to value co-creation (Bakalenko and Dolzhenko 2019).

Start-ups in Aberdeen such as Codethecity and Thethingsnetwork, along with government organisations like the NHS, actively crowdsource to gather knowledge in recognizing new marketing opportunities for innovation like in the resolution of the coronavirus epidemic (Manus 2021).

2.3.8 Crowdfunding

While crowdsourcing creates and captures value through open business models and collective creativity, crowdfunding is a diversified form of venturing directly

from the general public in the entrepreneurial ecosystem (Block et al. 2018). Lounsbury et al. (2019) viewed crowdfunding as a form of entrepreneurial activity as it entails interactive and dialogic process between entrepreneurs who run the start-ups negotiating with stakeholders. Even though crowdsourcing is commonly practiced over the internet, it involves negotiation through prescribed and accepted practices of interaction modelled from the entrepreneurial ecosystem (De Clercq and Voronov 2021). Similarly, Kraus et al. (2019) agrees with the notion that crowdfunding is an entrepreneurial activity, proposing that crowdfunding is an innovative and proactive means that disrupts common industrial funding practices through digitization, leading to the creation of whole new business models.

Crowdfunding platforms are generally two-sided markets aimed at reconciling entrepreneurs with investors. Start-ups can publish past investment documentation that investors can analyse towards direct share or equity purchase, and indirect purchases (Schwienbacher 2019). Other entrepreneurial actors may donate or invest small amounts of money towards a venture they deem viable.

Aberdeen City Council is largely responsible for regional policies governing business and investment in the Aberdeen entrepreneurial ecosystem. Aligning with crowdfunding platforms such as Crowdfunder, it can aid the city in its transformational journey by encouraging entrepreneurs to turn their ideas into market value through access to funding, while promoting entrepreneurial enactment in the region as individuals interact and invest in crowdfunding projects (Aberdeencity.gov.uk 2019).

2.4 The Entrepreneurial Ecosystem as a Structuring Process

While there is yet to be an encompassing or accepted definition for the entrepreneurial ecosystem among researchers and practitioners, the entrepreneurial ecosystem can be defined in terms of its definitive components- entrepreneurial being the exploration, evaluation and exploitation of opportunities for creating new goods and services, and *ecosystem* adopted from biology (ecological ecosystem) which denotes 'a biotic community, its physical environment, and all possible complex interactions between living and non-living components which it needs to function (Tansley 1935, Schumpeter 1942, Stam and Ven 2019, Kuratko 2020).

The accelerator is one of many functional components that integrates into the complex elements of the entrepreneurial ecosystem which act to create structure within its social system to enable it function sustainably (Harima 2019). The operations of macro level elements of the entrepreneurial ecosystem such as the accelerator, banks, research hubs, policy formulators and research institutions create a structure for individual social actors to interact purposefully with each other.

The scope of the accelerator as a functional component of the entrepreneurial ecosystem's structure traverses micro level operations exemplified in prescribed norms while introducing nascent entrepreneur to the operations of other structural components, to include macro level operations such as contributing to and implementing policies (Stam and Ven 2019). Evaluating the structuring process of the entrepreneurial ecosystem in Aberdeen from the accelerator (or elevator) approach is undertaken due to its holistic function in informing entrepreneurial practice (Cohen et al. 2019).

Lang and Johnston (2020) research breaks down the basic functional features of accelerators using a resource-based approach (Table 2). Through the structure created by the accelerator to support and promote entrepreneurship, social actors are encouraged to revisit social interaction with the purpose of enacting entrepreneurship along the social networks of the entrepreneurial ecosystem, if they are to access resources and thrive (Garcia-Ochoa 2020).

	Resource	**Functional Element**	**Structural Function**
1	Knowledge	Classes, Seminars, Mentors, Coaches and Experts	Learning and Knowledge Diffusion
2	Funding	Investors such as Angels and VCs and access to Financial Institutions	Sourcing
3	Infrastructure	Office/Meeting space, IT and Administrative services	Physical structure and design serving as an antecedent to the nature of interaction

4	Technology	Innovation, labs, intellectual property and researchers	Learning, knowledge diffusion, legitimization, and physical structure and design
5	Market	Customers, Corporations, Logistics and employees	Market research, sales, analytics and validity
6	Culture	Entrepreneurial Environment, Like-minded network and emotional support	Physical and social structural design as an antecedent to interaction. Interaction underlined with common purpose.
7	Social Interaction Networks	Entrepreneurs and social actors representing institutions and other functional elements	Social interaction within like-minded individuals will be evaluated from the position where the accelerator program serves as a structural process for the samples. The quality of this interaction is evaluated using Schwartz (2012) value framework.

Table 2 Lang and Johnston's (2020) Functional Elements of the Entrepreneurial Ecosystem

During an accelerator program, emphases is placed on social interaction for resource sharing, collaboration, networking and sustainability for value creation (Tel Hai Innovation Centre 2020). While the primary values in an accelerator model may remain bias to economic prowess, an overview of accelerator models shows it exists to provide the entrepreneurs with structure on how to interact effectively to access and mobilise resources owned and controlled by other stakeholders within the entrepreneurial ecosystem (Lang and Johnston 2020).

The main purpose of joining the accelerator should be to engage in value-expressive activities embedded in entrepreneurial enactment (Garcia-Ochoa 2020). The accelerator is evidence on how the entrepreneurial ecosystem through its components, serves as a structuring process that uses the mechanisms of social interaction as a resource to enable the development and integration of entrepreneurial education, skills and competencies among entrepreneurs, where the entrepreneurs are incentivized towards developing their capacity through enacting entrepreneurship. This structure and pattern is invaluable the creation and development of personal and social values as well.

It is therefore possible to infer that social interaction within the entrepreneurial ecosystem is often structured and meaningful, especially within structured functional components like the accelerator. It is this function that results in the perpetual creation of new and developed personal values by social actors, birthing a society of social actors with similar mental models, co-creating personal values and social values synchronously.

Accelerators have rapidly emerged as prominent players in the entrepreneurial ecosystem. Their attempt to help entrepreneurs learn, develop, and grow through consultation programs with alumni, peers and customers create various opportunities for structured social interaction with other social actors in the ecosystem (Garcia-Ochoa 2020). Accelerators, through accelerator programs, present a beneficial and likely replicable intervention to create a society relevant for independent entrepreneurs to interact towards not only socio-economic, but personal value creation as well (Hallen et al. 2020). Scheidgen (2020) posits that while the accelerator may provide the education and environment for scaling through accelerator programs, personal value creation by entrepreneurs during structured-meaningful social interaction needs to be emphasised.

It is therefore, necessary to evaluate the role of entrepreneurial enactment in social value creation within the context of a functional structuring process such as the accelerator in the entrepreneurial ecosystem to fully capture how entrepreneurial enactment creates social values in social interaction. While entrepreneurs, policy makers and academics continue to focus on successes of entrepreneurs and ventures who pass through accelerators to mechanisms and learning processes, this research is targeted at delivering a critical evaluation on the role of structured social interaction to offer a holistic paradigm to understand

the benefits of entrepreneurial enactment within structures such as that of the entrepreneurial ecosystem (Parsons and Shills 1951, Turner 1988).

Summary

In this section, entrepreneurial enactment is seen as a social actor's ability to practice or actualize its entrepreneurial knowledge, skill or orientation in a practical manner that has an impact on themselves, the person they are interacting with or their environment.

Entrepreneurial enactment is however, seen as only possible through the agency of social interaction, which in turn makes it a social process within the entrepreneurial ecosystem. Entrepreneurial enactment is seen as a necessity within the functional nature of the entrepreneurial ecosystem, and so the entrepreneurial ecosystem promotes it as a mode of legitimizing who is allowed to be part of the ecosystem society and control resources. Entrepreneurial enactment, therefore, acts as an axiology to social interaction for social actors who desire success within the entrepreneurial ecosystem. Exhibiting credibility within the entrepreneurial ecosystem involves interacting socially and building networks with incumbent members of the ecosystem, while engaging in value expressing activities based on entrepreneurial norms- as this entirely contributes to success of the entrepreneur.

There is a saturation of data among interacting social actors in the entrepreneurial ecosystem networks which includes prescriptions on how nascent entrepreneurs should operate. This phenomenon creates a homogenous nature among entrepreneurial ecosystem social actors operating within the same entrepreneurial ecosystem. Homogeneity results from co-created personal values in interaction guided by the prescribed principles of an entrepreneurial ecosystem. When these social actors are collocated and observed, expressions of their personal values constitute social values, as social values are exhibited in collective value-expressing activities.

The research has thus, selected the accelerator/elevator structural context to evaluate value expressions in an attempt to capture social value creation using Schwartz's (2011) personal values as a thematic code book for evaluation.

Chapter 3 Research Methodology and Methods

3.0 Introduction

Research is carried out for the purpose of making inquiry into the nature, the reason, and the consequence of any circumstance to gain new insights, exemplify characteristics, and to determine the frequency of the given circumstance (Kothari 2004).

Entrepreneurship in its broadest ramifications may be as old as civilisation itself, however, academic research into the entrepreneurship paradigm only begun in the 1700s as opposed to classical paradigms like physics which date as far back as the 400s (Elgar 2007). Nevertheless, entrepreneurship has increasingly become a popular field of inquiry with a growing community of scholars from a broad spectrum of disciplines entering the field (Low 2001, Neergaard and Ulhoi 2007, Audretsch et al. 2015). Despite its methodological diversity as a result of interdisciplinary contributions, researchers such as Low (2001) still viewed entrepreneurship as lacking in the methodological rigour exemplified by other traditional disciplines at the start of the 2000s. Entrepreneurship has however proven through its dynamics and complexities over the last two decades, that it is an everchanging phenomenon that presents an ever evolving and diversified methodological toolbox which can be used to capture its reflection as an applied science in practice, rather than a pure science (Neergaard and Ulhoi 2007).

The very nature of entrepreneurship is very unpredictable and remains a phenomenon in a state of constant change when observing how it has been practiced by individuals over time (Jantsch 2021). While this calls for more qualitative approaches to be adopted at regular intervals in formulating grounded theories, researchers often face the liability of legitimacy from mainstream editors who claim qualitative research papers lack sufficient rigour (Neergaard and Ulhoi 2007). Most contemporary researchers in entrepreneurship, however, often tap into the diverse methodological tool box in adopting qualitative research approaches in creating a logical and valid sequence to their research papers (Levasseur et al. 2022).

Quantitative and mixed research methods in entrepreneurship have been used in cases of entrepreneurial research around business models and economic performance models (Cullen and De Angelis 2021, Canovas et al. 2021). Surely,

the primary responsibility of any research school should be to educate and train students to improve practice as well (Neergaard and Ulhoi 2007). Research papers that have sought to inform the improvement of entrepreneurial practice have done a thorough job around small businesses, business models and societal intervention, and so it is necessary to carry out research in entrepreneurship in a way that focuses on the entrepreneur and the practice of entrepreneurship at an individual level to complement current literature – the best primary approach for such an endeavour being qualitative (Neergaard and Ulhoi 2007, Shekhar and Huang-Saad 2021, Jones et al. 2021).

The main goal of qualitative research methods is to develop concepts that illuminates understanding of a social phenomenon in a natural setting, with emphasis on making meaning of the experiences and views of the participants and researchers (Neergaard and Ulhoi 2007). Because entrepreneurship is a dynamic and complex social phenomenon, qualitative research methods have the capacity to explore uncharted territory within this field and contribute significantly to the advancement of entrepreneurial practice as an evolving applied science (Hanandeh et al. 2021). This research embraces and utilizes the richness of qualitative research methods to guide the main delivery of the research in ensuring the logical sequence of this research is maintained and to ensure validity.

While researcher's such as Eddington and Plakidis (1929) posit quantification as the most absolute operational process, quantification in entrepreneurship is invaluable and accurate when attaching value to natural numbers such as £1 million to a dollar, enabling its operations scientifically. However, using these methods to understand causal relationships in entrepreneurship often results in the development of sophisticated statistical and regression models that seem to have the exploratory power of a physics model. While this is exciting, it is important to note that the use of quantitative methods in pure sciences is predicated fixed theories and formulas, whereas the development of theories in entrepreneurship remains in a constant evolutionary state (Neergaard and Ulhoi 2007). More so, that the regression models which basically show relationships in entrepreneurship do not hold as much predictive power as in physics when applied in the real world due to the autonomy of entrepreneurs (Neergaard and Ulhoi 2007). The entrepreneurship paradigm is simply better off using qualitative

research as a corner stone for empirical inquiry into causal relationships (Hennink et al. 2015).

The study of entrepreneurship is an everchanging phenomenon that requires a holistic approach and methodological reflexivity offered by qualitative research methods (Neergaard and Ulhoi 2007). It is yet to be possible to efficiently and accurately select and isolate parts of the entrepreneurial sociological process which are stable enough to be analysed purely quantitatively.

In order to evaluate the role of entrepreneurial enactment in social value creation, the research uses the entrepreneurial ecosystem context as a natural setting in answering the questions:

1. How does the ecosystem promote entrepreneurial enactment?
2. How does entrepreneurial enactment promote personal value creation?
3. How does personal value creation lead to social value creation?

The purpose of this research is to gain more understanding on how entrepreneurship in practice creates social values, while delineating its real-world application and incentivising its practice simultaneously (Ajayi and Ibrahim 2021). By doing so, this research seeks to illuminate a holistic approach to observing entrepreneurship where it traverses economic profit, as a complement to the existing paradigms in the research of entrepreneurship.

More so, in the literature review, observations were made on how entrepreneurship offers a valid tool and intervention for the creation of new, and re-vitalisation of old societies (Berjani et al. 2021). While policy formulators within various societies continue to invest in providing structural infrastructure to support the practice of entrepreneurship, there is need to create knowledge using a research approach that provides evidence in a way that is heuristic enough to impact entrepreneurial practice at the individual level on a large scale.

Also, given that the functioning of the entrepreneurial ecosystem and entrepreneurial practice are influenced by the resource profiles and motivation of entrepreneurs (Turner 1988), therefore, making the commitment to focus on impacting the resource profiles and motivation of social actors towards entrepreneurial enactment is a valid approach in a time when everyone has a role

to play in the realisation of the post-modern society Schumpeter (1942). This section will explore the research methods and methodology further.

3.1 Research Design

The research adopted a purely qualitative design in conveying a systemic narrative on a cross-disciplinary and phenomenological research study (Anguera et al. 2018, Kimmons 2022). There has been debate on the credibility around best practices in the use of qualitative research, however, a well-designed and well-executed qualitative design enables researchers transform descriptive-causal inference into an empirical debate (Seawright 2016).

Due to the cross-disciplinary and phenomenological nature of entrepreneurship (Cope 2005), the research took a pragmatic stance which was reflected in the selection of research design. The research required the flexibility offered by qualitative methods to make major changes and adopt relevant research tools that addressed the research questions as the research progressed. This was necessary as it was entirely impossible for the researcher to know what theories or models would work best to describe the phenomenon of interest at the onset of the research (Seawright 2016). More so, due to the cross disciplinary nature of entrepreneurship, it was necessary to adopt qualitative tools that best described various aspects of entrepreneurship from various schools, and integrate them in the most logical sequence in making the research heuristic.

Qualitative research offers a possible solution for answering complex social research questions, where collecting literature and data from different sources is possible in enabling the understanding of the complex social or human condition empirically (Anguera et al. 2018). In other words, qualitative methods enable us explore beliefs, values and motives that explain behaviour, while making it possible to infer quantitative aspects such as frequency, intensity and duration of that behaviour using requisite qualitative research tools (Castleberry and Nolen 2018).

The research sought to adhere to the logical sequence that connects the empirical data of the study's initial research questions to the conclusions using qualitative methods, where fundamental changes were progressively made as data was analysed. While some quantitative researchers argue against major changes to the research design once data gathering has begun, rejecting fundamental

changes would lead to a first-time researcher such as myself ignoring themes and findings that have developed in the course of the research which contributed to the robustness of the research methods used (Yazan 2015). This oversight in itself could be attributed as a weakness in quantitative research. Themes and findings are evaluated and delivered in a structured narrative, drawn from data gathered from the research participants (Stake 1995).

Qualitative research methods often entails the use of research tools in a parallel or sequence for making final inferences logically (Anguera et al. 2018). Qualitative research method is also characterised by reflexivity which permits the integration of various theories, models and frameworks which offer a more robust education this research topic (Pousti et al. 2021).

In this research, semi-structured interviews are used to collect primary data. Semi-structured interview is one of many interview models in empirical qualitative inquiry used for data gathering, and to gain a deep understanding of participants' perceptions of their lives when developing a thick description of a given social world or phenomenon (Mahat-Shamir et al. 2021). An interview protocol containing 8 guiding questions was designed prior to the interviews and acted as a guide for the interview process, however, the interview was not limited to only these questions.

The semi-structured interviews were carried out remotely on the Microsoft teams video conferencing app as recommended by the university, followed by the audio being transcribed and thematically analysed on the Nvivo 20 software application for social research. The Nvivo 20 software application enabled the researcher undertake a rigorous and methodological thematic analysis of the qualitative data in a five-step framework which would usually require more than one researcher or a lot of resources in traditional qualitative research analysis (Castleberry and Nolen 2018). These steps can be seen below;

1. Compiling – involved compiling the transcripts and reviewing them to ensure they were understandable and useable for the research. It was the first step in ensuring the researcher got familiar with the data, and also involved the researcher organizing the transcripts into meaningful categories for efficient analysis. The categories chosen in this research were entrepreneurs, mentors and administrators. Using the Nvivo 20 application

enabled the researcher have a snapshot of the data as a whole before dissecting it to uncover its components.

2. Disassembling – This step involved the researcher reviewing and getting more familiar with the organized transcripts, while making sure that the data in each group is meaningful. Using a codebook that was generated from Schwartz's (2012) personal values, the researcher was able to develop codes on Nvivo 20. These codes were then used to gradually convert the transcripts in these groups into usable data by identifying themes, concepts and ideas that reflected the codes by highlighting phrases, sentences and paragraphs. Nvivo 20 has the capacity to turn qualitative data to graphical displays that enabled the researcher recognize patterns in the codes in a reliable, systemic pattern.
3. Reassembling – the research then endeavoured to capture the relation between the data and research questions by mapping out each concept that the codes identified. This process resulted in the development of themes. With the use of Nvivo 20 and themes, the researcher was able to reduce text-based qualitative data into hierarchies and visual data in showing relationships between the codes. As an independent researcher, Nvivo 20 enables thorough analysis of the research subject to transfer understanding and defend interpretations and conclusions made in the research. This is achieved by Nvivo 20's reliability and flexibility that enabled the researcher to revisit and vet the data, codes and themes throughout the reassembling process.
4. Interpreting – Interpreting happened throughout the data analysis process, however, this is the process that involves making analytic conclusions. The Nvivo 20 software was practically useful in developing a hierarchy showing the frequency of themes captured, as well as developing visualizations that enabled the researcher capture patterns that were not initially constructed. Interpreting how these themes relate to each other was a necessary step towards creating a foundation for my conclusions.
5. Conclusion – Identifying and defining themes lead to interpretation, while conclusion is drawn from using the finding to respond to the research questions. Using Nvivo 20 enabled the researcher adhere to common values around qualitative research including transparency when making recursive interpretations. Using Nvivo 20 enabled the researcher make conclusions

that are open for careful scrutiny even while understanding that conclusions from qualitative research are often not generalizable.

The research conceives knowledge as being socially constructed and emerging from peoples' social practices and experiences within their environment (Smith 2021). As entrepreneurs grow, they create a social reality for themselves as they seek to expand their capacity and mobilise resources towards an idea by constantly translating it to stakeholders using tactic means to interact with their environment as social beings (Yazan 2015). Because this research is making this epistemological commitment to entrepreneurship as a social construct, this research proposes that knowledge is subjective, and therefore adopts an anti-realist ontological stance (Kassenberg 2021).

Anti-realism directly translates to the fact that in the entrepreneurial ecosystem reality is socially constructed, however, a more holistic approach inferred from the literature review also reveals that entrepreneurs are influenced by their realities - where a structuring process can inform action or inaction by the entrepreneurs (Kassenberg 2021, Eabrasu 2021). This is why this research exhibits relativist as well as pragmatic characteristics of anti-realism in order not to blindside other relevant themes and findings (Kassenberg 2021). Pragmatism is drawn to convey what is useful, practical and what works within the selected research methods and tools, and in the exploration of the entrepreneurial ecosystem from the accounts of what value means to the research participants- whereby this research holds that entrepreneurial enactment in the entrepreneurial ecosystem is one out of many contexts that could be used to understand social value in reality (Erhard et al. 2021).

The epistemological commitments also guide the dedication of the research to contribute to the reader regardless of their notions of knowledge and reality. This commitment is made in the affirmation that there is no single interpretation to social reality (Stake 1995). In social research, reality is not objective, rather there are multiple interpretations of reality and so, most contemporary qualitative researchers hold that knowledge is constructed rather than interpreted (Stake 1995; Merriam 1998).

In analysing the findings from the research, however, interpretivism is most suitable since the research is concerned with individualistic participation in social

value creation by the social actors - where value creation is birthed from intrinsic motivations in social interaction as opposed to the prevalence of markets and opportunities (Packard 2020). While the underlying theme of joining the entrepreneurial ecosystem is motivated by exploitation of opportunity, creation of commercial value and individual prowess, the research evaluates opportunities for personal and social value creation which exists within the process of entrepreneurship. To capture value within this ramification, the researcher uses Schwartz's (2012) personal value framework along with findings from the literature review in creating a guide for data collection and analysing the findings in an effort to mitigate the researcher's subjective biases - as it is entirely impossible to separate the research, researcher and participants in qualitative research (Coburn et al. 2021).

3.2 Researcher's Background, Beliefs, and Biases

In quantitative research, there is no imperative to understand the researcher's background, beliefs and biases, because the researcher is assumed to be entirely separate from the research and thus does not influence research findings (Kimmons 2022). In qualitative research however, the researcher is an informed participant which acts as an instrument in the research process that directly influences the data gathered (Kimmons 2022). This section is therefore, not an attempt at an autobiography. This section is intended to uncover the researcher's philosophies, background and motivations, to further inform the understanding of the reader on the actions undertaken and findings presented in this research.

In 2016, I was introduced to the world of start-ups and entrepreneurial ecosystem by my friend who later became a colleague when I was back in Nigeria. Moving into the local emerging entrepreneurial ecosystem in Abuja from a construction and agricultural background resulted in a lot of personal changes around the way I thought and conversed about ideas, the way I referred to value, the way I perceived initiatives such as collaboration. In order to efficiently transfer my social scientific capacity in an industry full of practical technicians, I found a niche for myself in the people side of operations management. Building on this capacity led to me pursuing and obtaining an admission from the Robert Gordon University for a masters of science in purchasing and supply chain management, and later go on to undertake a research in management along the line of entrepreneurship and

the ecosystem. It is only right to note that my final dissertation at the MSc level was on the impact of entrepreneurial supply chains on the success of start-ups in Aberdeen.

While I enjoyed drawing up my MSc report, I felt the research was still asymmetric to my personal experience – whereby my research fell victim to the paradigm of small business performance perspectives. I started to realise why I couldn't find any knowledge to help me understand how I could have best integrated into the entrepreneurial ecosystem on a personal level or incentivize it among my peers outside quick economic benefits. And so, this research thematically enlightens the reader on how a social actor like myself may be able to identify areas to adapt, grow, and identify opportunities within the natural setting of an entrepreneurial ecosystem as an entrepreneurial person and not a business first.

From my experience, the entrepreneurial ecosystem does exist and thrive in certain regions because of how the social actors are able to network and the nature of interaction they have with one another. The goal of the entrepreneurial ecosystem is however, for expansion of entrepreneurial practice globally. And so, as Aberdeen like other economies seek to provide all the structural infrastructure to support an entrepreneurial ecosystem, it needs the participation and adoption of entrepreneurial practice by social actors within their regions.

I see reality as both pre-existing in some condition externally, but more importantly, created as social actors conceptualise and interact with their environment as they express their motivation in social interaction subjectively. I believe that these commitments enabled me to undertake the research holistically, combining elements of relativism and pragmatism simultaneously for a more in-depth social scientific inquiry into my own inclination legitimately. While I am aware of my positivist views towards the research topic, the scientific methods implored in the form of a guided semi-structured interviews, will be followed by analysis using recommended and validated qualitative research tools to mitigate this bias. As an instrument of data collection, I endeavoured to undertake relevant training on issuing interviews in qualitative research, as well as qualitative analysis using Nvivo 20. I am however, aware of my limited competences that come from a lack of experience typified by seasoned researchers, and so I hope to use this

research as a pilot towards exploring social reality even further as my research skills develop.

While I am also not a seasoned practitioner either, I have gained some legitimacy in the Aberdeen entrepreneurial ecosystem, whereby the participants are able to evaluate me based on referrals. By pursuing both entrepreneurship and academia simultaneously, I developed a relationship with the head of the school of entrepreneurship in one of the institutions, which further proved invaluable in my research journey in contacting participants. This enabled me develop the kind of trust that ensures the best possible quality of data is collected. Establishing legitimacy and trust within the Aberdeen ecosystem, preceded by actions such as referrals from administrative actors within the system makes me suitable to be an instrument in the research, and enables me deliver the research as efficiently as possible.

3.3 Sampling Method: Non-Probabilistic Sampling

While it is often desirable to capture data and analyse a whole population, this often cost a lot of time, resources and expertise to achieve. Due to these limitations, this research used purposive sampling methods, where a part of the population within the Aberdeen ecosystem was selected for interviews within certain criteria, as not every person in the region is a conscious and active participant within the Aberdeen entrepreneurial ecosystem. Using purposive sampling enabled the researcher save time, resources and energy, while ensuring the data gathered would be as relevant to the theme of the research as possible.

The research therefore, created 3 criteria, of which each sample must satisfy at least one to be selected. These are;

1. Sample must be an entrepreneur who operates within the Aberdeen Ecosystem;
2. Sample must have attended an accelerator program within the Aberdeen Ecosystem; and
3. Sample must have an affiliation with the ecosystem through an accelerator program e.g., administrator, investor, mentor, etc.

To reduce sampling bias, the research used these classifications to select samples in an intense-homogenous non-probabilistic manner (Kalviainen et al. 1995). This

is suitable for this research due to information density among participants who operate along the networks of the entrepreneurial ecosystem (Malecki 2018). Based on this proposition, the research holds that entrepreneurial practice is a phenomenon which can be incentivised globally if its dynamic complexities are empirically exemplified.

The sources of these samples included the RGU Accelerator, OGTC and Techx, and Business Gateway cohorts. These sources only offered a list of companies that had been part of their programs, and so I used the LinkedIn data base to connect with co-founders from those companies. Once I connected with them, I shared a poster inviting them for the interview. While this method was helpful, there was an extremely slow response rate.

The research adopted voluntary response sampling method whereby, a public poster was made and posted on LinkedIn to invite respondents to be vetted towards partaking in the research. While this method is often frowned upon, limitations such as time, cost and physical immobility during the coronavirus period made it necessary. I also needed to mark up my sample size by supplementing the chosen method with other forms of non-probabilistic sampling including snowballing sampling techniques through referrals from participants (Gabor 2007).

In total, I sent out 42 private invites on LinkedIn, posted invites on LinkedIn multiple times, sent private invite emails to businesses and founders from business gateway, RGU accelerator, Tech X and OGTC cohorts, as well as requested recommendations. In total, I interviewed 11 participants – 2 from LinkedIn, 4 from the RGU accelerator, 2 from the OGTC, 2 from Tech X, and 1 recommendation. These participants included 1 mentor, 9 entrepreneurs and 1 administrative staff. Because of the low response rate and that the research is self-funded, running costs over time increasingly became a challenge, and so the research used these 11 participant interviews in the analysis chapter. 11 participants is accepted as valid for this research as validity in interpretative qualitative research is both regulatory, as well as relative to the purpose and the circumstance of the research and not a criterion (Whittemore et al. 2001, Ronkainen and Wiltshire 2021). The research however, calls for a larger sample

size to be evaluated using other sampling approaches in the future for a more in-depth understanding of the research subject.

While using the non-probabilistic sampling method, the research mitigated the dependency bias on convenience sampling by implementing purposive methods – as samples were vetted based on their importance and relevance to the study (Etikan et al. 2016). Non-probabilistic sampling thus ensures there would be a range of relevant subjective accounts which offer the researcher a basis for a more robust analysis.

3.3 Research Procedure

Qualitative research is an intensive study that conceptualizes holistic descriptions and analysis of a bounded circumstance such as a social unit, within a natural setting such as the entrepreneurial ecosystem context (Merriam 1998). While the research does not utilize quantitative methods, the research adopts guiding principles for capturing qualitative data to ensure the robustness of the collected data, analysis and findings (Merriam 1998, Yin 2002).

The guiding principles adopted in defining characteristics for validating data in this research are:

1. Particularistic (focusing on situation, event, program, or phenomenon): The participants who were selected for capturing qualitative data were selected based on their history of having attended an accelerator/elevator program within the Aberdeen Ecosystem, validating their relevance to the particular context making the data more specific. Adhering to this criterion ensures that the data gathered from the participants contributes directly to future quantitative researches as this research isn't entirely particularistic.

2. Descriptive (yielding a rich, thick description of the phenomenon under study): the guided questions used in the data collection tool contained all open-ended questions where sufficient time was given to the participants to recount their experiences as elaborately as possible. This ensured that the empirical evidence and findings in the research could be presented in a rich descriptive manner. Some quasi-quantitative methods such as statistical presentation of findings was adopted to further ensure a rich description of data gathered.

3. Heuristic (illuminating the reader's understanding of phenomenon under study): making epistemological commitments that are transformative underlines this principle. The research's commitments to being an educational tool guided the selection of research methods that were applied in this research. While this might represent a challenging read to someone who has no inclination towards the entrepreneurial phenomenon, illumination happens with diligence and practice. Therefore, the qualitative data was gathered, bearing in mind that being a research that seeks to be globally relative, I must not limit the imperative to challenge the reader's perspective of understanding reality and pursuit of knowledge.

Qualitative data was thus gathered and analysed to ensure that only that which requires knowing, and having the potential to lead to significant understanding is recognized as a good form of data to be included in the research. Semi structured interviews were issued to 11 participants between July, 2020 and June, 2021. Consciously and unconsciously, testing out the veracity of perception of the researchers and robustness of the research interpretations required sensitivity and scepticism on the researchers part using five-step framework for thematic analysis mentioned earlier as a guide (Stake 1995, Merriam 1998). The data gathering process involved the acquisition of skills, receiving constructive feedback from the supervisory team, and the use of prescribed academic procedures to select academic journals and mine primary data from semi structured interviews (Merriam 1998 and Yin 2002). Also, data gathering is influenced by the researcher's skills, therefore training for the study and the development of a protocol for the investigation and the screening of the participants was necessary (Yin 2002). To ensure these conditions were met, the researcher sought to gain competencies in qualitative research through online seminars, online courses and study materials.

According to Merriam (1998), there are three major sources of qualitative data which are observation, interviews and documents. Participant observation is arguably the most direct source of data gathering. Observation is however, not only resource consuming, but may be counter-productive where samples act out of bias when they are told they are being watched. While observation could indeed be used to make a research robust, it was entirely impossible to use this data gathering method due to the prevailing coronavirus conditions and the imperative

for individuals to self-isolate physically. This method was thereby not objectively appealing in the case of this research.

This research also does not use the second source of qualitative data, i.e. documents. Documents such as past case studies, learning module outlines, old feedback records and primary data gathered from past researchers would fall under this category. Documents would have played a major role in this research if the focus was on investigating the impact of the mechanisms of the structuring process of the entrepreneurial ecosystem on a social actor, rather than investigating the impact of the social actor's actions and motivations which must be captured primarily.

The last source which is semi-structured interviews, served as the most suitable method for gathering primary data for social interaction; where the samples recount their experiences within the entrepreneurial ecosystem following open ended questions. These interviews were only conducted with eligible participants based on the established selection criteria. Each participant was issued a consent form which they were encouraged to sign and return before their interview, whereas, some of the participants preferred to offer their consent *verbatim* at the start of the interview. Samples were scheduled into meetings, where the interview was then conducted remotely using the Microsoft teams application as recommended by the university. All interviews were conducted virtually and recorded with the consent of all the participants.

These interviews were then saved directly to the Microsoft Stream account. Even though the app offered automated transcription services, I ensured I listened in on each interview and made relevant edits on Nvivo 20. By using the guided research questions as a tool of inquiry, the researcher was able to capture rich and relevant primary data which is used in inferring findings.

All samples were informed that the data gathered would be stored until the end of this research, whereas, all data collected would be destroyed after the researcher has graduated. This data is saved on my university data base. Analysis is discussed in-depth in subsequent sections.

While the use of all three data sources are beneficial, the inquiry for this research is primarily focused on the constructed reality of the entrepreneurs based off their perception and recounted interaction with other entrepreneurs within the

Aberdeen ecosystem. Since social values are expressed in social interaction (Schwartz 2012), observation may seem the most desirable at first impression however, momentary goal orientation during a program like the accelerator may fore shadow other aspects of social interaction limiting other beneficial inputs to this research.

A semi-structured interview, ideally using video and voice calls is wholly adopted in this research. This method of data gathering will ensure the researcher guides the interaction towards the context of inquiry, developing insights that will offer relevant data to the research. The researcher is also able to assess the samples remotely thereby reducing the economic and environmental costs of collocation. Microsoft Teams is the research's choice of data gathering tool for the interviews, using the user profile provided by the Robert Gordon University, where this research is being hosted.

The interview questionnaire consists of 8 open-ended questions (Appendix 1) which were used to guide the virtual conference call using the Microsoft teams® application. The questions were designed to capture the entrepreneur's journey as they interacted with and integrated into the Aberdeen ecosystem. By using these questions to capture data, the research is able to capture personal value expression thematically in the form of the participant's motivation for joining the entrepreneurial ecosystem, and motivation for interaction with other social actors.

To answer the research questions however, the data is also inferred to reveal how the entrepreneurial ecosystem promotes entrepreneurial enactment and personal value creation. To achieve this, the researcher analysis the data and presents findings to reveal what happens during interaction along the social networks of the Aberdeen entrepreneurial ecosystem by capturing the nature of connections and the quality of the interaction thematically.

All data is analysed thematically using Schwartz's (2012) personal value framework, as social values within the context of this research connotes personal value co-creation among entrepreneurs.

Participants were interviewed for an average that came up to 45 minutes. 11 unstructured interviews were undertaken in total between July, 2020 and June, 2021, whereas this research had to move on to data analysis due to a constraint on the researcher's resources and projected time to complete other aspects of the

research in respect to the slow response rate. The sample size of 11, however, proved adequate due to the relatively homogeneous nature and saturation among the ecosystem entrepreneurs (Boddy 2016). Data analysis is explored further in the next section.

The framework analysis mentioned in section 3.1 is applied in this research in the identifying of themes, in the creation and analysis of subthemes, and in synthesizing, reducing and summarising all the data gathered into systemic interpretations and conclusions (Reed et al. 2021, Pelt et al. 2021). The research uses this process in examining, categorizing and tabulating qualitative evidence from the primary data to address the initial propositions of the research study (Yin 2002, Yazan 2015). This process is necessary in making sense out of the data through consolidating the data and making it easier to interpret and infer (Merriam 1998). While there are multiple methods of data analysis, none is inherently most suitable and each researcher needs, through experience and reflection, to find the forms of analysis that work for him or her (Yazan 2015). Data analysis in qualitative research should not only be a matter of giving meaning to first impressions, but also to final compilations adapting the use of analytic tools to ensure the rigor and robustness of the research results (Yazan 2015).

This research uses the NVivo 20® qualitative data analysis software to analyse data, where a code book is developed using Schwartz's (2011) universal personal values as thematic indicators for capturing social value creation, as personal values are co-created during entrepreneurial enactment among entrepreneurs. The codebook and findings are discussed in the chapter 4.

NVivo is used by qualitative researchers in analysing text-based sources such as interviews, surveys, focus groups, websites, and news articles through automation as opposed to traditional means of qualitative data analysis which is energy and time consuming (Heckemann et al. 2007). Some limitations that may abound include the results not directly addressing the research question and the researcher gaining little to no information about what is going on in the background (Adu 2020). On the other hand, the tool will aid in ensuring the robustness of the results by giving the researcher a means to cross reference initial impressions and insights from the data and offer quantitative descriptive tools for presentation of findings.

3.9 Ethical Issues

The exploratory study is carried out within the code of research ethics as stipulated by the Robert Gordon University Graduate School. A research ethics form was issued by the university for approval prior to the researcher beginning the interview process. Samples are requested for consent, as well as informed of the nature of research. Their anonymity during data analysis and presentation of findings is maintained. Before the data gathering process begins, the researcher emailed a letter detailing the aim and purpose of the research including a form to be signed and returned for archiving in the Onedrive cloud space provided by the Robert Gordon University. The data gathered from samples does not include any personal information that might serve to impede on the safety of the samples or the performance of their venture. In line with the code of research conduct however, all data gathered, including documents, will be treated as sensitive material and will be protected from any form of distribution with both audio, visual and transcripts stored only on the Onedrive space provided by the Robert Gordon University. The data will be kept securely by the researcher, on or until the completion of the research and graduation to ensure data has been fully utilized, after which all data will be entirely destroyed.

Chapter 4 Analysis and Findings

4.0 Introduction

The preceding chapters were able to synthesize relevant literature in enlightening the reader theoretically on how the agency of the entrepreneurial ecosystem promotes entrepreneurial enactment among social actors. Based on the literature review, entrepreneurial enactment is prescribed as a prerequisite for credibility and success among ecosystem entrepreneurs (Donaldson and Mateu 2021, De Clercq and Voronov 2021). The research also evaluates how the functional components and institutions of the entrepreneurial ecosystem operate in such a way that reinforces entrepreneurial enactment in social interaction through education and knowledge transfer, financial support, and access to complex networks, communities and infrastructure. This research posits that through entrepreneurial enactment, interacting with and within the components of the ecosystem leads to social actors developing personal values, which in turn constitute social values when these actors are collocated, co-create personal values, and are observed.

This section is dedicated to revealing how the research sought to theoretically inform interpretation of qualitative data efficiently and effectively, as opposed to interpreting based on trial and error – especially in making sense of how social value is created (Strauss 1978, Woolf and Silver 2017). The researcher harnessed the Nvivo 20 qualitative data management program in creating and applying thematic codes, categories, and establishing relationships to infer all findings (Woolf and Silver 2017).

The research adopted Schwartz' (2012) personal value framework in creating the codes used in the thematic analysis. Best put, a code is a word or phrase used in qualitative inquiry which symbolically captures or assigs an attribute, essence, summary, or salient part of qualitative data (Saldana 2021). Codes are used to define parts of qualitative data to be analysed, thereby enabling the researcher link other parts of the qualitative data which exemplify the same definition for categorizing and establishing relationships (Gibbs 2007).

Schwartz's (2012) personal value framework provided the research with universal personal values, followed by their broad goals and value concept definitions - which in turn provided a theoretic, definitive and analytic basis for the thematic

code book. The researcher then used a line-by-line thematic coding approach to analyse the data, whereby the researcher's preconceptions and prejudices were limited by the analytic provisions of the code book. The guided questions used in gathering primary data endeavoured to capture how entrepreneurial enactment along the social networks of entrepreneurial ecosystem leads to value co-creation among social actors from participant accounts. Value co-creation is captured thematically by highlighting value expressing activities from the primary data using the codebook, where value co-creation is seen as the participants ability to engage in value expressing activities while interacting with other social actors and the environment in the entrepreneurial ecosystem.

The guided questions for the semi-structured interview were elemental however, the interview was not only limited to these questions as some participants required further probing. The semi-structured interviews were delivered on a virtual conference call using the Microsoft teams® application and recorded with the consent of the samples for transcription. Out of these recorded interviews, 1 of the files was faulty and inaudible due to equipment error and so was only transcribed using artificial intelligence, whereby it didn't prove valid to include in the final analysis. Below is a table showing the spread of the entire sample size used in this research according to their categories, and the total number of interviews analysed.

Classification	**Total Interviewed**	**Faulty**	**Analysed**
Entrepreneur	9	1	8
Mentor	1		1
Administrator	1		1
Total			**10**

Table 3 Summary Table of Samples

While 11 participants were interviewed in total, only 10 transcripts were analysed under the pseudonyms A-J in adhering to keeping their identities private as promised. Participants A-H are entrepreneurs, while participant I is a mentor and participant J an admin. The transcript that contained data on the recommended participant was incomprehensible due technical difficulties during the interview. This was intentionally exempted to ensure the quality of the primary data analysed.

4.1 Personal Value Creation Analysis

Using the code book affixed in the appendix, the researcher was able to analyse the interview transcripts thematically using a line-by-line coding approach. 11 codes were generated in reference to each universal value mentioned in table 1 above, each with broad goals and value concepts that define each code. The themes captured from analysing categories and creating relationships using these codes were then used to interpret the data and answer the research questions.

Included in the code book is the value concept proposed in this research expressed as social interaction. While this research expressed this proposition, the accompanying broad goal, universal requirements, and value concepts affiliated with this value (Table 5) was developed from thematic analysis of the interviews captured. The code is used to thematically analyse the data with the same process adopted for all other codes used in the research in connecting how values traverse persons to become social values.

Personal Value	**Broad Goal**	**Universal Requirements**	**Value Concepts**
Social interaction	Understanding the need to traverse one's self through articulating one's mental concepts as goals, communicating these goals, and seeking cooperation towards achieving these goals and the vocabulary	The **need** to traverse one's self in sharing value expressing activities with others	Talk to, speak, network, connect, socialise, contact, express myself, conversate, interact, share

	used to express them.		

Table 4 Table showing broad goals, universal requirements and value concepts of Interaction

Using this code book on the Nvivo 20® app, the research was able to identify personal values thematically from the qualitative data. This not only proved that personal values are being created among the social actors who enact entrepreneurship, but also provided evidence to support the relevance of social interaction as a personal value. Below is a table showing each code as a theme, the frequency of each code across transcripts, and the total number of times each theme was identified across all the transcripts.

Theme	**Frequency Among Samples**	**No. of Times Mentioned**
Self-direction	10	17
Stimulation	10	42
Hedonism	3	6
Achievement	10	32
Power	5	8
Security	4	4
Conformity	6	10
Tradition	6	12
Benevolence	8	15
Universalism	8	13
Social interaction	10	53

Table 5 Summary table of Personal Value findings

The findings show that the most frequent personal values experienced by the samples were self-direction, stimulation, achievement and interaction. These values all appeared thematically among all 10 transcripts that were analysed, however, the value with the most distribution by frequency in the results is social interaction at 53, the next being stimulation at 42, achievement at 32 and self-direction at 17.

According to these findings, entrepreneurial value expressing activities play a significant role in why individual are drawn to the entrepreneurial ecosystem. While participant H mentions "all my life I've been into entrepreneurship" and participant B states "I started looking for jobs and there wasn't any. So, I decided to make my own. And I figured let me actually do something I'm passionate about. And I happen to like this planet. And it's my favourite planet. And I started doing like, renewable energy and Led technologies". These two participants like the other participants, found the ecosystem as a place they could express whatever diverse entrepreneurial values that motivates them along with other entrepreneurs.

A common theme that came up as shown by the findings is social interaction. Social interaction was represented as both a value expressing activity in itself, as well as a medium for expressing other values and enacting entrepreneurship.

Participant I states he enjoys the entrepreneurial ecosystem because he gets to keep in touch with the "old boy network". In the case of participant C, the participant states "sometimes you really need to speak to that person, in order to be a successful entrepreneur", connoting social interaction as a means to experience and express *achievement* in the future through making important social connections.

Another important finding around social interaction was its mechanism in integrating individuals into the entrepreneurial ecosystem. Findings showed that individuals often join the entrepreneurial ecosystem on basis of a recommendation during an interaction. Commonly as seen in the case of participant C who states "it was a friend of mine, who told me about the elevator course", there is a common pattern of the ecosystem being promoted through knowledge diffusion in social interaction. Also, participant B states, "those are still contacts I have, and we've cooperated. We support each other", citing an example on how the entrepreneurial ecosystem promotes purposive social interaction which forms positive purposive future chains of interaction.

Whereas social interaction was more frequent in the results, this supported the proposition made in the literature review that social interaction is indeed a universal value concept as exemplified in the research findings, especially in regards to the entrepreneurial ecosystem context.

A thematic analysis of the transcripts also corroborates that just as social interaction is a medium for entrepreneurial enactment, it also acts as the medium for co-creation and transfer of universal personal values. Regardless of the primary goal of the entrepreneur, research findings showed that entrepreneurs are encouraged to engage in social interaction as a tactic means to gain support ang acquire resources in the entrepreneurial ecosystem. Through meaningful social interaction, social value creation is indeed made possible as individuals co-regulate, exchange and express values towards enacting entrepreneurship. Below is a chart showing the overall findings from this analysis revealing the relative frequency of personal values based on the findings pictorially.

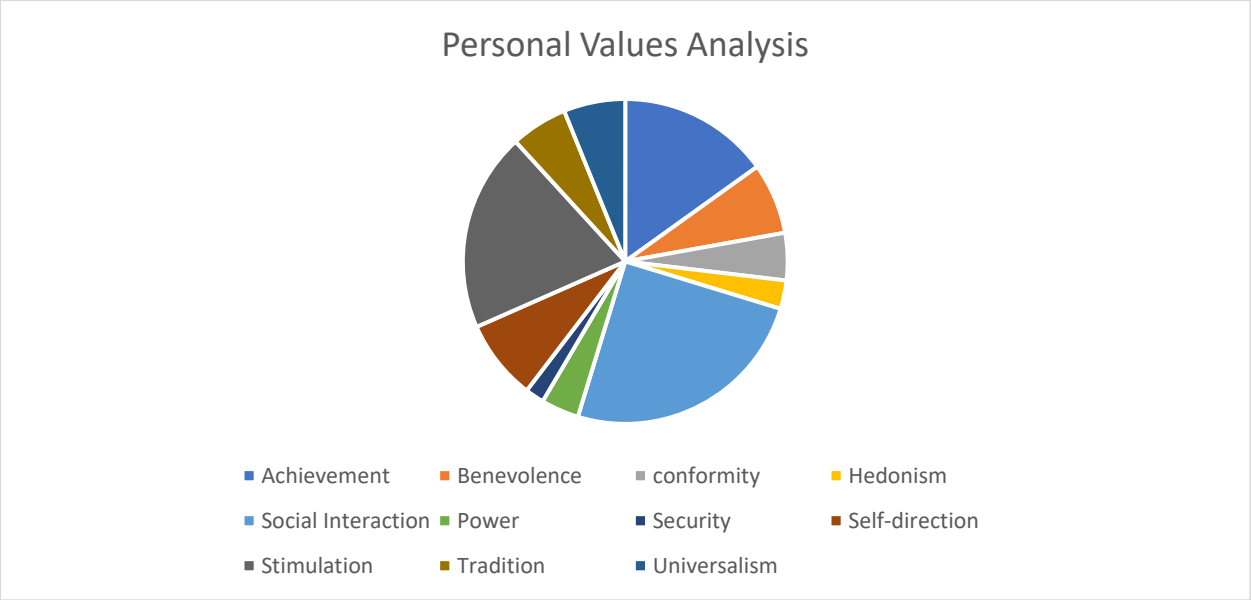

Table 6 Chart showing Personal Value summary

4.2 Social interaction as a Personal Value Analysis

This section provides evidence for social interaction as a personal value in terms of its broad goals, universal requirements and value concepts associated. Identifying this theme from the interview further provided evidence for the relevance of social interaction as a personal value in this research - where the nature and role of social interaction is characterised in how it enables the expression of other personal values.

4.2.1 Evidence for the Broad Goal of Social interaction as a Personal Value

A thematic review of the responses captured the need broad goal for social interaction as a personal value, where social interaction is perceived as a means to traverse one's self as a universal requirement drawn from the need to achieve

ones goals as an expression of one's mental concepts - where values expressed and exchanged leads to social value creation through social interaction.

In expressing the broad goal of social interaction in entrepreneurial enactment, participant A states, "it's definitely something to do with, I would say expression of, you know, expressing what's inside to outside. It's almost like that so almost a necessary thing. Because otherwise, it's like, well, what am I doing? What am I doing on the planet? If I'm not trying to express myself?". This statement clearly highlights traversing one's self as a need which the sample channels through entrepreneurial enactment. Further along in the interview, the participant then states that "through expression definitely comes learning. So, it's like you learn, things to do and things not to do. And you learn things that you didn't expect to learn. So, it's, it's, it's very much I see, learning as hand in hand, it's like bacon and eggs, and no fish and chips. Just go together." The statement above illustrates how social interaction led to the creation of personal values, where the sample finds the need to traverse their individual experience through interacting in the entrepreneurial ecosystem led to *achievement* from the participant increasing his or her cognitive capacity.

Another example of how social interaction is identified in the terms of its broad goals in traversing one's self characterised by an exchange of personal values such as *conformity* and *achievement* values where participant B states, "I started doing like, renewable energy and led technologies and such, which now through some, what people would call coincidence, let me to speak to people who had developed recently, the antimicrobial lighting system, which is totally on the visible spectrum. And through that, we now get into the titanium dioxide." As a nascent entrepreneur in the Aberdeen entrepreneurial ecosystem, the participant finds it necessary to adhere to the tradition of purposive interaction with other social actors with goals or value profiles that would lead to the success of the participant's venture. The ability of the nascent entrepreneur to make contact with these other social entrepreneurs and recruit their support is an achievement in itself.

Alongside achievement values, through social interaction, samples also experience the co-creation of universalism and conformity within the ecosystem as observed in participant G's statement, "Yeah, I think at an early stage, I was, I think and I

do recommend that at an early stage, it's quite good to be involved as well as you meet likeminded people, people maybe at a later stage who have more experience more knowledge of things that you don't have, so that they can help you this synergy is formed, certain ideas you might have might not take off, or you may be able to work with other people who have other ideas, and you've got the expertise, there is a lot to be gained as well." Furthermore, participant C states interaction within the ecosystem involves "certain conversations, and with the kind of the probates which they've got" as a social interaction is indeed a tactic means to experience other personal values within the entrepreneurial ecosystem.

4.2.2 Evidence for the Universal Requirements of Social interaction as a Personal Value

The universal requirements of social interaction as a personal value concept within entrepreneurial ecosystems stem from the need to traverse oneself through articulating one's goals, communicating these goals, and seeking cooperation towards achieving these goals and the vocabulary used to express them. Social interaction is therefore seen as a regulation of values between two or more actors with the purpose of traversing one's self in offering and receiving personal values synchronously.

Evidence for this requirement within the entrepreneurial ecosystem is exemplified in participant's response to the best way they believe nascent entrepreneurs may integrate into the entrepreneurial ecosystem with participant E stating, "*networking has always been the best thing just going out there.* Even if you're as a young as a student or anything, just speaking, just going out and networking. In the past, people like elevator did hold networking events. And also, because we had you know, accelerator programs and they weren't just only for people who were on the program, they were open to everyone, so people or people with ideas would go in there and speak to other like-minded entrepreneurs to see, you know, just create synergies and speak about different ideas."

From time experienced in the accelerator program, participant A recounts, "there is something that I think is something I would say it's something that I have thought about and did think about, and has crystallized more recently. And that is, I think that the human interaction side of things is important. But I think what's critically important is that it there are various scales of that interaction. So, so for

instance, you have interaction where the whole the whole group is, is talking or listening or, whatever it is they're doing, then you have smaller, you know, that splits up. And then that splits up again. I think they did have big and smaller. But I think there was a level missing of even smaller kind of interactions." The aforementioned statement shows that even though social interaction is indeed promoted in the entrepreneurial ecosystem, social actors can confirm that the need for social interaction cannot be overemphasised.

Participants did not only identify that social interaction is indeed an intrinsic requirement for every life, but also that the entrepreneurial ecosystem promotes a mindset for purposive social interaction as a requirement for success. This research, however, observes social interaction as a personal value concept in itself, whereby they expression of this value leads to the creation of other values.

4.2.3 Evidence for Value Concepts used in Capturing Social interaction as a Personal Value

Using selected statements from the interview, the research thus offers evidence of value concepts that were both proposed and adopted in this research. Below is a list of value concepts followed by statements as examples of how these concepts are applied in capturing themes for analysis;

1. **Talk to –** "I managed to talk to as many people as I could, in different ways.", and "just to have somebody talking to you about things that you may even think you know, something about, but you may only know, a tiny little bit rather than just sort of a much."
2. **Speak to –** "let me to speak to people who had developed recently, the antimicrobial lighting system, which is totally on the visible spectrum."
3. **Networking –** "networking has always been the best thing just going out there. Even if you're as a young as a student or anything, just speaking, just going out and networking. In the past, people like elevator did hold networking events."
4. **Connect –** "Well, H, from what H is saying about himself, his experience he would be perfect for us because he will just get what we're trying to do... he really he really gets us."
5. **Socialise –** "like where you can like go out for a drink, and just like socialise about people's personal lives, like that, at least to me, it seems to have

like, a significant amount of intangible value. I think like, that's kind of what I think enabled us to connect really well."

6. **Contact –** "it's much more about contacting people. People who are already in business. Contacting you with bankers with funders."
7. **Express myself –** "I would say expression of, you know, expressing what's inside to outside. It's almost like that so almost a necessary thing."
8. **Conversate –** "But having said that, I would say that there are two, three, probably four people who have actually had, uh, either separate conversations. Or emailed backwards and forwards."

This research, being preparadigmatic, offers these value concepts which have been applied for critique and in-depth evaluation as the researcher supports that the list is neither exhaustive nor robust enough to capture all facets of social interaction.

4.3 Anomalies in Findings

There were certain anomalies that are worth mentioning from the thematic analysis of primary data. These anomalies as stated include:

1. Participants mentioning a lack of success in economic terms, where participant B stated "if you measure success, am I drying my tears with millions of pounds every night I go to bed. No, I haven't been successful. I am feeling increasingly, that I'm not getting rewarded for the work I do as much as I would if I was an employee of a company financially." This is mentioned as an anomaly as it is expected that economic success is usually found as a common value realised in the entrepreneurial ecosystem, however, only this participant emphasised economic success as a key theme of their interview.

2. Participant B also mentioned that peer interaction wasn't incentivised and support wasn't optimal as "I was expecting that the elevator accelerator … in general would be more proactive in encouraging these kinds of incubating ideas, including incubating collaborations, actually nursing companies to merge and become bigger. But most of the time, we find quite frank in the [accelerator], I felt like a fish in the bottle." Also, participant B felt "The elevator program is not about the entrepreneurs in the room, it's about the

[accelerator], and only about that, it was very clear, they will bring you Barclays they bring you Apple to sell you products, and they will take the most well presenting person and take them very far. And my cohort, it was an enterprise that would offer virtually nothing for the betterment of the world." While this is subjective and a singular example, the sample size denotes that possibly 10% of entrepreneurs could feel this way which is a significant number.

3. When the question was raised on the nature of connections made in the ecosystem, participant F mentioned an imbalance between connections with peers over mentors, where the participant stated that, "Most of them are co-entrepreneurs or having their own businesses. I haven't met any mentors yet." This anomaly stands out as the ecosystem theory holds that mentors make up a significant number of connections that needs to be made by nascent entrepreneurs and it is expected that they avail themselves to the opportunity to support accelerator cohorts. This calls for a need to develop a model that regulates the biases of social actors making only one type of significant connection.

4. On the question of recommending the entrepreneurial ecosystem to actors outside the ecosystem, 70% of samples held that creating networks held far more significance than joining an institution such as the accelerator. This stands out as an area for consideration, where networking events should be incentivised as a recruitment exercise for accelerator programs, not based on value profiles and business models, but based on social interaction and exchange of values with no filters.

4.4 Synthesis of Findings

As governments rely on researchers and policy makers to develop new ideas, question inherent status quo, and make use of evidence in creating policies that better focus on long term sustainable goals (Hallsworth et al. 2022), it is important for this research to dedicate a section that seeks to bring together data from the included literature, and synthesise this data with the findings of this research in drawing more robust and clear conclusions on the propositions made within this research. The main aim is to understand how and if there is indeed a sustainable

relationship between entrepreneurial enactment and social value creation by offering a social interaction themed interpretation of the guiding research questions chronologically using prevalent literature and the findings of this research. Keeping in mind the modified Turner's (1988) social interaction model that was used in sensitizing this research, the questions of 'why' social actors interact, 'what' happens when they interact, and the impact of 'where' they interact are revisited thematically as well.

To recap, the guiding research questions are:

1. How does the entrepreneurial ecosystem promote entrepreneurial enactment?
2. How does entrepreneurial enactment promote personal value creation?
3. How does personal value creation lead to social value creation?

The following sub-sections will explore each question individually.

4.4.1 How does the entrepreneurial ecosystem promote entrepreneurial enactment?

On page 2, the research introduces the concept of entrepreneurial ecosystems as the integration of structured socio-economic networks that affect entrepreneurship. The entrepreneurial ecosystem usually pre-exists in some form, but most importantly, it is perceived and created subjectively by entrepreneurial actors as they find themselves interacting with different components of their social reality towards enacting entrepreneurship (Bouncken and Kraus 2021). Also, the literature review explored how through social interaction, a social actor outside the social networks of the entrepreneurial ecosystem may seek to acquire and mobilise resources which he needs to succeed in his venture. The research explored how the social actor must undergo some form of conditioning that enables him gain validity with veteran entrepreneurs who own and control resources within the entrepreneurial ecosystem (Johnson et al. 2019, Prasetya and Wibawa 2020, De Clercq and Voronov 2021, Donaldson and Mateu 2021). The nascent social actor's validity is often evaluated along social networks during social interaction, as entrepreneurial ecosystems are often characterised by a "chain of interaction" typified by exchange of ideas, knowledge, resources and social connections channelled at entrepreneurial enactment (Azomiv et al. 2020, Donaldson and Mateu 2021, De Clercq and Voronov 2021).

From the data gathered, the research found that there is indeed a chain of interaction typified by the aforementioned characteristics within the entrepreneurial ecosystem which enables the promotion of entrepreneurial enactment, supported by the motivation of social actors to enact entrepreneurship and the infrastructural components provided by the entrepreneurial ecosystem (Turner 1988, Donaldson and Mateu 2021, De Clercq and Voronov 2021). For example, during informal social interaction with an entrepreneur who was already a part of the Aberdeen entrepreneurial ecosystem, participant F states, "it was a friend of mine who told me about the elevator course" as he casually shared his motivation to pursue a new business idea. This interaction, as well as subsequent ones he's had, enabled him explore more components such as the elevator where he received educational training and gained financial support to enact his entrepreneurial idea. Also, expanding his network and his ability to interact effectively within the network of the entrepreneurial ecosystem has enabled him maintain a lifestyle where he can enact entrepreneurship perpetually.

This chain of interaction is seen to be emphasised by all participants on their journey towards enacting entrepreneurship, where for example, participant B states about the connections he has made, "we are friends, and we also collaborate", and also, participants C's take on social events within the entrepreneurial ecosystem where the participant states that people are often, "open to everyone" during social events, and, "so people or people with ideas would go in there and speak to other like-minded entrepreneurs to see, you know, just create synergies and speak about different ideas". These statements further exemplify the embeddedness and normalization of entrepreneurial enactment within social networks, as participant B claims it is common following a new connection in the entrepreneurial ecosystem to, "always think about each other" especially in the context of knowing "a person who can do this and who can help me with that" entrepreneurial idea.

From the examples given above, it is possible to infer that a purposive chain of social interaction is promoted and adhered to which both enables new entrepreneurs to integrate and succeed within the entrepreneurial ecosystem and also sustain their success and growth synchronously through the promotion of entrepreneurial enactment within the social networks of the entrepreneurial

ecosystem (Azomiv et al. 2020, Donaldson and Mateu 2021, De Clercq and Voronov 2021).

In order for social actors to be successful within the provisions of the entrepreneurial ecosystem, the research found that there must be an alignment in the motivation of the social actors and the entrepreneurial ecosystem (Turner 1988, Anderson and Korsgaard 2011). This alignment is seen as necessary due to the fact that motivation of social actors often impact perception, and perception impacts the quality of interaction- possibly the reason motivation profiles of social actors are a key indicator in the recruitment of nascent entrepreneurs within formal settings of the entrepreneurial ecosystem (Anderson and Korsgaard 2011, Chan 2019). The entrepreneurial ecosystem is seen to implement innovative and robust teaching modules that seek to create and promote motivation towards entrepreneurial enactment, while creating the opportunity for re-current social interactions that further promote entrepreneurial enactment.

4.4.2 How does entrepreneurial enactment promote personal value creation?

The research found that during social interaction in the entrepreneurial ecosystem, validating personal values of nascent entrepreneurs and how they align with entrepreneurial enactment is a primary criterion for gaining credibility even in a purely capitalist entrepreneurial ecosystem (Anderson and Korsgaard 2011, Dalila et al. 2020). This is because personal values play a significant role in intent and pursuit of goals, and so therefore, for a social actor to thrive within the entrepreneurial ecosystem, they must have personal values that align with entrepreneurial enactment, otherwise, nascent social actors must be open to creating and developing new personal values if they hope to thrive within the entrepreneurial ecosystem (Prasetya and Wibawa 2020).

Through the promotion of entrepreneurial enactment in social interaction and engaging in value expressing activities around entrepreneurship, social actors often find themselves able to create new and transform old entrepreneurial traits into formidable personal values reflected in their everyday lives through recurrent practice within the entrepreneurial ecosystem (Anderson and Korsgaard 2011, Prasetya and Wibawa 2020). In this paradigm, personal value creation traverses traits passed down from older kin to younger members of society, to constitute a disruption of the social actor’s personal value system (Prasetya and Wibawa

2020). Through the agency of purposive social interaction (informal and formal), nascent entrepreneurs find their values and motivations are disrupted within the entrepreneurial ecosystem as they continue to gain more experience and education, and are influenced by the value systems of other entrepreneurial actors, even when their primary goals may or may not perfectly align (Schwartz 2012, Chan 2019, Gokel's 2020).

Participant A mentions her motivation to be a lifelong learner accompanied by entrepreneurial intent was complemented in the entrepreneurial ecosystem accelerator by a "bridging" of "the gap between you and … other people that you'd need to work with, whether they're partners, fabricators or whatever it is". This enabling environment to learn and interact socially with other entrepreneurial actors within the entrepreneurial ecosystem has so far transformed participant A into a lifestyle entrepreneur, where her value expressing activities and personal values are now moreover, grounded in entrepreneurial enactment (Meltzer et al. 2020). The research found social interaction to be a distinct personal value in itself, where participants echoed their need express themselves and traverse everyday reality was being fulfilled through entrepreneurial enactment- except for participant B whose personal value disruption was a desire to return to his engineering job.

As participant A best explains when asked about how it felt to interact in the entrepreneurial ecosystem, she says "I would say expression of, you know, expressing what's inside to outside. It's almost like that so almost a necessary thing. Because otherwise, it's like, well, what am I doing? What am I doing on the planet? If I'm not trying to express myself?". Her answer further reflects the broad goals and universal value concept proposed in table 4 of the research.

Using Scwhartz's (2012) universal personal value concepts as thematic codes, the research investigated 10 other distinct personal values alongside social interaction. These values were seen to be often predicated by the need to enact entrepreneurship, followed by the need to traverse oneself in the entrepreneurial ecosystem through social interaction. Regardless of the typology of interaction, social actors were able to harness all possible overt movements, covert deliberations, and basic physiology aligned with enacting entrepreneurship in a way that created personal values for themselves (Turner 1988, Anderson and Korsgaard 2011, Schwartz 2012).

These findings do in fact reveal that entrepreneurial enactment does promote personal value creation through the agency of purposive interaction like in the context of the entrepreneurial ecosystem. For more on the personal value creation analysis within the entrepreneurial ecosystem, kindly refer to section 4.1.

4.4.3 How does personal value creation lead to social value creation?

Schumpter (1942) says, there will come a time when the world will return to classical democratic economies where the will of the will of the people will be projected unequivocally- but it will require everyone to know what he/she stands for, and definitely know how to connect with one another.

This pattern is definitely adopted and can be observed in the functional nature of the entrepreneurial ecosystem (Roundy et al. 2018, Stam and Ven 2019). As each social actor in the entrepreneurial ecosystem strives to enact their independent entrepreneurial will, it is done in a manner that is of the social actor's own volition, without need for propaganda or pressure groups, ultimately to realize the common good of the entrepreneurial ecosystem as a whole.

The literature review revealed that there is a high level of cooperation and collaboration among social actors and other components of the entrepreneurial ecosystem (Tee et al. 2019, Kusa et al. 2019). This relationship is fostered towards enacting entrepreneurship, which creates a perpetuity for personal value co-creation, or better put, social value creation.

This research posits that social value is created and can be observed in its most basic form whenever two or more autonomous social actors are able to integrate their mindset and goals, and organise or apply this integration in a way that they are able to complete or accomplish any given goal synchronously (Sanders and Simons 2009). Social interaction which is the most frequent personal value concept recorded in the research (see section 4.1), was observed to be both a personal value in itself, as well as the mechanism for social value creation within the entrepreneurial ecosystem.

As explored in the literature review, social interaction within this theme is perceived as the process where two persons simultaneously seek to traverse their individuality by articulating goals, communicating these goals, and seeking cooperation towards achieving these goals synchronously (Gupta and Polonsky 2020, Azomiv et al. 2020). As participant A recounts a typical day at an

accelerator, she says "The whole thing was based on coming together as a group. And there were about 20 teams as it were 20 businesses. We came together. And we would do exercises, they set up sometimes together, sometimes separately. We would talk to each other during our time together, because we would have like eating together, like, you know, snacks and things. And yes, I mean, that, if anything, I think that there could have been more of that. It was it was definitely something valuable". Often times, these forms of social interaction is seen to be responsible for the diverse nature of personal values co-created within the entrepreneurial system. From participant A's statement, we can infer she shares a mutual feeling of *hedonism* and *conformity* along with other social actors in the room as they enjoy being surrounded by other like-minded individuals (Scwhartz 2012).

Some participants even vouched for social interaction as a new fulfilling personal value in itself such as participant I who states, "you always learn in whatever you do especially from the ecosystem. There are things people will do that you would take with you." as you interact with people with "significant experience. people with nothing, grey hair or nay hair, you come across, and the things they will advise you … I think you can take with you to apply in your everyday life and … according to your work". In this example, participant I would feel a sense of *achievement* from an expanded capacity and acquiring new knowledge, while a veteran entrepreneur he interacts with may feel some sense of *benevolence* from helping a nascent entrepreneur (Schwartz 2012).

Through the mechanism of purposive social interaction, driven by the motivation of social actors to enact entrepreneurship within an environment that is governed by policies that promote entrepreneurial enactment, social values are created among collocated entrepreneurial ecosystem social actors perpetually. These social values are found to closely tied with the success of entrepreneurial actors within the entrepreneurial ecosystem, as well as fundamental in supporting a sustainable social environment where the economy of the entrepreneurial ecosystem is able to thrive.

Summary

The analysis presented in this chapter aimed to deliver evidence to support that social values are indeed created by social actors as they enact entrepreneurship within the entrepreneurial ecosystem through the mechanism of purposive social interaction. The promotion of entrepreneurial enactment acts as an axiology to personal value creation, where personal values created by these actors in the process engaging in value expressing activities grounded in entrepreneurial enactment is observed from accounts of social interactions collected from participants. A thematic interrelationship between social interaction and other personal values shows how social interaction acts as a mechanism for expressing other values, whereby the research found social interaction is a personal and social value in itself. The findings mentioned above are discussed further to illuminate how social value creation can be captured within the natural setting of the entrepreneurial ecosystem in the next chapter.

Chapter 5 Discussion

The main aim of this research is to evaluate the relationship between entrepreneurial enactment and social value creation. In the previous chapter, the research findings and synthesis supported that entrepreneurial enactment does lead to social value creation using Schwartz's (2012) personal value framework as a thematic guide for analysing primary data collected from accounts of collocated entrepreneurial actors within the Aberdeen entrepreneurial ecosystem.

The research adopted a modified version of Turner's (1988) social interaction framework introduced in chapter one in sensitizing the research data, especially in demonstrating the relationship between the motivation of entrepreneurial actors, the environment in which they operate in which is the entrepreneurial ecosystem, and the quality of social interaction which leads to social value creation. Findings from the qualitative data gathered from participants corroborated propositions made towards the aforementioned proposition, where the research used Schwartz's (2012) personal values framework in qualifying the nature of social interaction within the entrepreneurial ecosystem and illuminating the relationship between entrepreneurial enactment and social value creation.

The research mentioned at the fore-set that it seeks to incentivize entrepreneurship through illustrating its propensity to create social values within the entrepreneurial ecosystem, and how this can play a role in the realisation of a postmodern society where there is harmony in social values and individuals can thrive. It was therefore necessary to include a personal value concept that seeks to capture social value creation at the most basic level of socialisation, i.e. social interaction. Research supports that participating in social networks which have a meaningful chain of interaction as exemplified in the entrepreneurial ecosystem plays a role in creating both personal and social values as shown empirically by this research (Fosenca and Lukosch 2021). There are other motivations for meaningful social interaction, however, this research has been able to exemplify these findings within the entrepreneurial ecosystem context where entrepreneurial enactment serves as primary motivation.

These findings illuminate the reader on the socialised nature of entrepreneurship within the entrepreneurial ecosystem tactically for individual and social achievement (Pesce et al. 2019, Meltzer et al. 2020). This offers individuals a

diverse opportunity to actualise a large number of innovative ideas or otherwise, express and co-create personal values during social interaction as they pursue enact entrepreneurship within the entrepreneurial ecosystem. Delineating entrepreneurial practice, while signposting its socialised nature will serve as incentive to further integrate social actors into the entrepreneurial ecosystem, as well as for informing better entrepreneurial practice. Furthermore, the research proposes a framework for creating and capturing social value creation within the entrepreneurial ecosystem as a model for policy makers, educators and entrepreneurs to better understand how to identify and evaluate social value creation within entrepreneurial ecosystems as they enact entrepreneurship. To achieve this, the research holds that entrepreneurial enactment acts as an axiology to social interaction within the entrepreneurial ecosystem, where social interaction acts as a mechanism for co-creation of personal values, or rather, the creation of social values among social actors. Given the findings and relationship shown between the personal values evaluated, the research thus proposes a modified version of Schwartz's (2011) personal value framework as seen below.

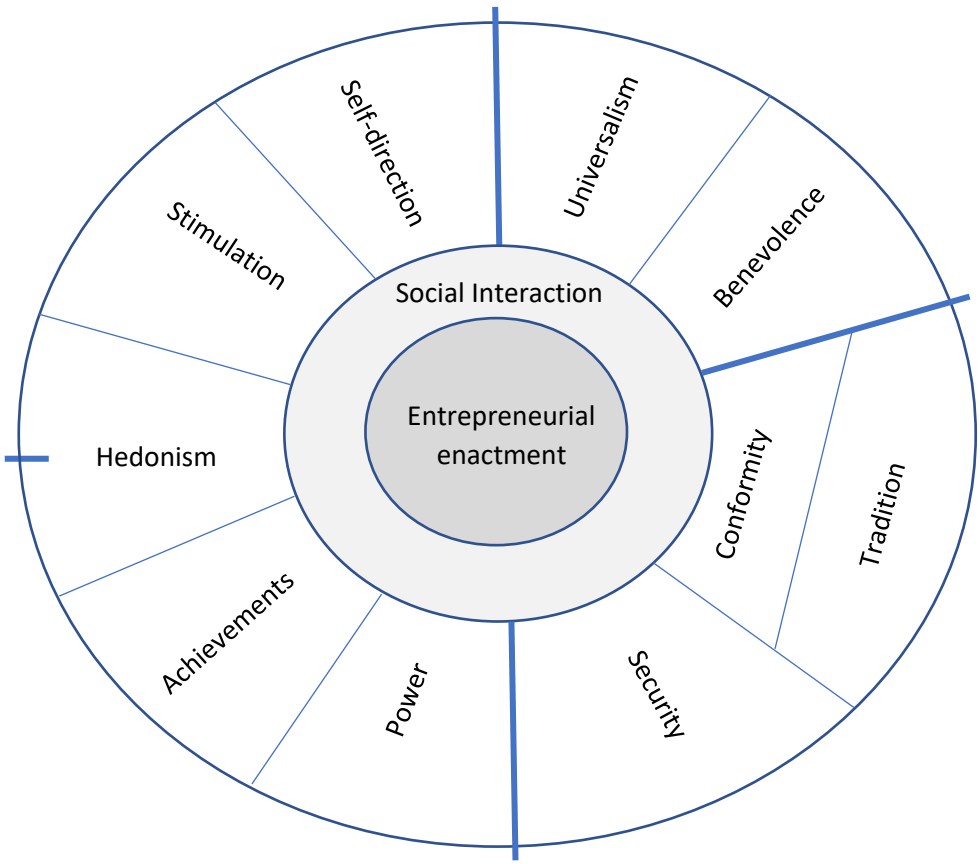

Figure 3 Proposed Framework for Social Value Creation in the Entrepreneurial ecosystem

The reviewed framework which has been purposefully constructed for the entrepreneurial ecosystem context has entrepreneurial enactment at its core, followed by social interaction as a value which was not formerly a part of the original framework. Through the mechanism of social interaction, individuals are able to traverse their individuality in co-creating values as they pursue to enact entrepreneurship synchronously with other entrepreneurial actors in the entrepreneurial ecosystem.

The framework above (Figure 4) maintains the structure of the original cyclical framework designed by Schwartz (2012) to express the dynamic interrelationship of universal values based on their compatibility and conflict in motivation – that is to say that values with similar motivations are more likely to be derived from the same action by the individual social actor and so are represented closer on the framework (Schwartz 2012). An illustration to support this claim could be seen in the response of participant B in stating 'the biggest chance I have in this life to become a wealthy, wealthy person' is to interact with the entrepreneurial ecosystem. Wealth in itself often creates feelings of achievement, power and security. However, having not experienced the financial success expected, the participant feels insecure and states 'I'm actively seeking a way out of being an entrepreneur'. As observed, *achievement, power* and *security* are closely related on the proposed social value framework above. It is expected however, that if participant B were to be successful, other social actors who offered some form of support would experience similar or other personal values such as *achievement* or *benevolence* along with participant B – thus social value creation.

This is not definitive of the nature of the proposed social value creation framework, as opposite values may indeed be derived from two or more autonomous actors engaging in similar value expressing activities. However, the wheel presents a social value framework that offers the perspective of a continuum for personal value co-creation, or rather, social value creation as an ever-expanding phenomenon when social interaction is included and made meaningful. The expression of this integrated structure as a circular continuum also creates a framework for understanding how social values have a relative creation process between multiple social actors, whereas, the original model stopped at implementing the wheel at only an individual level.

In an earlier version of Schwartz' (1992) value framework, spirituality was proposed as a distinct value in itself, where the defining goal for spirituality is expressed in the need to find meaning, inner harmony, and unity with nature in transcending everyday reality. This was however dropped entirely due to an absence in consistency when it came to giving meaning to spirituality in cross-cultural contexts (Schwartz 2011). In the entrepreneurial ecosystem context however, entrepreneurial enactment is seen as the defining goal for transcending one's everyday reality in finding meaning, inner harmony and unity with nature – where nature is represented as the natural setting of the entrepreneurial ecosystem represented by all its interactive components (Wurth and Spigel 2021). The assumption therefore, is that the homogenous actions of social actors within diverse entrepreneurial ecosystem indicates that entrepreneurial enactment may connote spirituality even when social actors have varying primary goals and objectives. This assumption does not however, take into account other pre-existing socio-cultural elements such as language and politics into consideration and so there is still a call for further empirical research. Testing this assumption may further express why entrepreneurial enactment is indicated in the social value framework above as the centre piece of the entire framework, whereby through purposive interaction, social value creation among social actors within the entrepreneurial ecosystem is then made possible.

The reader is reminded at this point that this framework is preparadigmatic. In order to fully understand these propositions academically, further in-depth research is recommended.

Chapter 6 Impact

As governors seek to implement policies that attain better economic outcomes for their regions, they often invest in replicating the success of sustainable entrepreneurial ecosystems by supporting entrepreneurial actors and businesses locally in both advanced and emerging economies (Roundy et al. 2018; Stam and Ven 2019). To achieve sustainable growth of the entrepreneurial ecosystem, policy makers must consider democratising innovation in a way that it complements, reflects and support the social values of social actors within the region (Ferreira et al. 2019, Audretsch et al. 2019).

Researchers such as Paschal (2022) support that for economies to attain better economic outcomes for its citizens, governors must empower social actors in emerging economies as opposed to seeking foreign aid if they are to be independent. This research found that if the entrepreneurial ecosystem approach is to be used to govern and revitalise emerging economies, empowerment of social actors will potentially involves a disruption of personal values if sustainability is to be ensured. One way that governors could begin the process of disrupting personal values is by funding research into areas around socialised entrepreneurial learning that enables individuals refine their ability to pursue motivation at the elementary, high school, tertiary and adult education levels. This research has found that social values are but a reflection of personal values when individuals are collocated and observed, and so social actors are incentivised to engage with and support the socio-economic environment that promote their personal values and value expressing activities.

At an individual level, the research is invaluable in a time when the realisation of the post-modern globalised ecosystem is becoming a reality. The research revealed that social actors who chose to learn and practice entrepreneurship are likely to experience personal values as they integrate and interact with other social actors along the networks of the entrepreneurial ecosystem. The research thus, presents a constructive paradigm towards approaching the prevailing reality at an individual level by delineating the complexity of the entrepreneurial ecosystem, while offering an educated narrative that reveals how people can live happier and more fulfilled lives within such an environment.

The research sought to creatively re-pioneer research into socialised entrepreneurship whereby the research developed a framework for capturing social value creation applicable by individuals, educators and policy formulators for mapping out and evaluating personal and social values within the post-modern entrepreneurial environment. Entrepreneurial enactment has been proven in this research as a valid axiology to personal value and social value creation in the entrepreneurial ecosystem, therefore, informing better practice in entrepreneurship may aid in revitalisation of individuals and economies globally through the adoption and implementation of the entrepreneurial ecosystem approach. This call is made on the premise that each individual plays a role in the formulation of societies, therefore, informing better practice will invariably result in the creation of a harmonious post-modern society (Schumpeter 1942).

Policy formulators may use the framework within various other ecosystems and industries to capture the nature of universal values being expressed. This may provide valuable information on intervention needs, as well as for informing future practice. Creating knowledge that incentivizes participation in entrepreneurial interaction contributes directly to the further adoption and realisation of the globalised entrepreneurial ecosystem, one social actor at a time.

A major limitation to this research was getting access to research participants. This happened partly because during the time of this research the world was on lock down due to coronavirus, but also because participants weren't as forthcoming as I anticipated. This informs me to use better channels next time e.g. streamline with an accelerator cohort, which will make it possible for more in-depth research methods such as participant observation. Also, this research will benefit from cross-regional data inference.

Conclusion

The research was able to utilize a systemic narrative in heuristically contributing to existing entrepreneurial knowledge with the aim of promoting and informing entrepreneurial practice at the individual level. The aim was also to impact how people not only perceive themselves in regard to the society, but also serve as a map to show that each social actor has a role to play in the formulation of the post-modern social system.

Findings from the research validated propositions such as entrepreneurial enactment as a norm in the entrepreneurial ecosystem. Nascent entrepreneurs are made certain that reproduced meaningful interaction is encouraged and groomed in the entrepreneurial ecosystem by incentivising them to express their ideas. Through investigation and evaluation of this research, the reader is able to start developing mental models on how to undergo entrepreneurial prowess and succeed within an entrepreneurial ecosystem through social interaction relatively, even if this concept is entirely new.

The research creatively includes the framework for capturing personal value creation developed and the pre-paradigmatic approach taken in exploring entrepreneurial enactment as social value creation.

While I endeavoured to undertake the semi-structured interviews with as little impact on the participants responses, in some cases I had to interject in bringing the interview back to its theme before the interview turned to a convolution. At this point, a limitation worth emphasising is that the researcher is a first timer with a limited research skill set. While I hope to dig deeper into this research theme as I develop, this is a call to seasoned researchers to embark with me on the journey of informing entrepreneurial practice for personal and social benefits.

References

ABERDEENCITY, 2021-last update, Services|Aberdeen City Council [Homepage of Aberdeen City Council], [Online]. Available: Aberdeen.gov.uk [05/05, 2021].

ACS, Z.J., BRAUNERHJELM, P., AUDRETSCH, D.B. and CARLSSON, B., 2009. The knowledge spillover theory of entrepreneurship. Small business economics,

ADIVAR, B., HÜSEYINOĞLU, I.Ö.Y. and CHRISTOPHER, M., 2019. A quantitative performance management framework for assessing omnichannel retail supply chains. Journal of Retailing and Consumer Services, 48, pp. 257-269.

ALBERTI, F.G. and PIZZURNO, E., 2017. Oops, I did it again! Knowledge leaks in open innovation networks with start-ups. European journal of innovation management.

Alsalman, A., 2021. THE EFFECTIVENESS OF UTILIZING SOCIAL NETWORKS IN SOCIAL INTERACTION REGARDING THE DEVELOPMENT OF THE COVID-19 PANDEMIC AMONG STUDENTS OF IMAM ABDUL RAHMAN BIN FAISAL UNIVERSITY IN DAMMAM. [online] Archives.palarch.nl. Available at: <https://www.archives.palarch.nl/index.php/jae/article/view/7597> [Accessed 31 August 2021].

AMAN, R., AHOKANGAS, P. and ZHANG, X., 2021. Migrant women entrepreneurs and entrepreneurial ecosystems during an external shock: a case study from the healthcare sector in Kazakhstan. Asian Business & Management, , pp. 1-31.

AMANOR-BOADU, V., MARLETTA, P. and BIERE, A.W., 2009. Entrepreneurial supply chains and strategic collaboration: The case of Bagòss Cheese in Bagolino, Italy. International Food and Agribusiness Management Review, 12(1030-2016-82745), pp. 49.

ANDERSON, A., HARBI, S.E. and BRAHEM, M., 2013. Enacting entrepreneurship in 'informal'businesses. The International Journal of Entrepreneurship and Innovation, 14(3), pp. 137-149.

ARFAN, H.H., 2021. Motivation and Work Environment on Employee Performance. Journal of Indonesian Scholars for Social Research, 1(1), pp. 15-19

AUDRETSCH, D.B. et al., 2019. Entrepreneurial ecosystems: economic, technological, and societal impacts. Indianapolis; Los Angeles : Technology Transfer Society.

AUDRETSCH, D.B., BELITSKI, M. and DESAI, S., 2015. Entrepreneurship and economic development in cities. The Annals of Regional Science, 55(1), pp. 33-60

Auerswald, P., 2009. Creating Social Value. [online] Shkoshareacf. Available at: <https://www.oshkoshareacf.org/wpcontent/uploads/2017/11/TWPReadingCreatingSocialValue.pdf > [Accessed 28 August 2021].

BAKALENKO, A. and DOLZHENKO, R., 2019. Crowdsourcing as a modern management technology in conditions of new industrialization, 2nd International Scientific conference on New Industrialization: Global, national, regional dimension (SICNI 2018) 2019, Atlantis Press.

BERJANI, D., VAN BURG, E. and VERDUYN, K., 2021. Entrepreneurship as social change: Enacting revitalization and emancipation in a precarious context. Academy of Management Proceedings. Academy of Management Briarcliff Manor, NY 10510. pp. 15829

BESCHE-TRUTHE, F. et al., 2022. Abstract. S.l.] : SPRINGER NATURE.

BLOCK, J., HORNUF, L. and MORITZ, A., 2018. Which updates during an equity crowdfunding campaign increase crowd participation? Small Business Economics, 50(1), pp. 3-27.

BOUNCKEN, R.B. and KRAUS, S., 2021. Entrepreneurial ecosystems in an interconnected world: emergence, governance and digitalization. Berlin ; Heidelberg : Springer.

Breuer, H., Ivanov, K., Abril, C., Dijk, S., Monti, A., Rapaccini, M. and Kasz, J., 2021. Building values-based innovation cultures for sustainable business impact. In ISPIM Conference Proceedings (pp. 1-31). The International Society for Professional Innovation Management (ISPIM).

BROWN, R., MAWSON, S., LEE, N. and PETERSON, L., 2019. Start-up factories, transnational entrepreneurs and entrepreneurial ecosystems: unpacking the lure of start-up accelerator programmes. European Planning Studies, , pp. 1-20.

CAINELLI, G., EVANGELISTA, R. and SAVONA, M., 2004. The impact of innovation on economic performance in services. The Service Industries Journal, 24(1), pp. 116-130.

CANOVAS-SAIZ, L., MARCH-CHORDÀ, I. and YAGÜE-PERALES, R.M., 2021. A quantitative-based model to assess seed accelerators' performance. Entrepreneurship & Regional Development, 33(3-4), pp. 332-352

CAO, Z. and SHI, X., 2021. A systematic literature review of entrepreneurial ecosystems in advanced and emerging economies. Boston, Mass. : Kluwer Academic Publishers.

CASTLEBERRY, A. and NOLEN, A., 2018. Thematic analysis of qualitative research data: is it as easy as it sounds? Currents in pharmacy teaching and learning, 10(6), pp. 807-815

Chanal V, Caron-Fasan M. The Difficulties involved in Developing Business Models open to Innovation Communities: the Case of a Crowdsourcing Platform. M@n@gement. 2010;13(4):318-40.

CHEN, Z. and SU, S.I., 2021. Assembly system with omnichannel coordination. Journal of Industrial & Management Optimization, .

COBURN, C.E., PENUEL, W.R. and FARRELL, C.C., 2021. Fostering educational improvement with research-practice partnerships. Phi Delta Kappan, 102(7), pp. 14-19

COHEN, S., FEHDER, D.C., HOCHBERG, Y.V. and MURRAY, F., 2019. The design of startup accelerators. Research Policy, 48(7), pp. 1781-1797.

Conger, M., 2012. The role of personal values in social entrepreneurship. In Patterns in social entrepreneurship research. Edward Elgar Publishing.

COPE, J., 2005. Researching entrepreneurship through phenomenological inquiry: Philosophical and methodological issues. International small business journal, 23(2), pp. 163-189

COSTELLO, A.M., 2019. The value of collateral in trade finance. Journal of Financial Economics, 134(1), pp. 70-90.

CRIșAN, E.L. et al., 2021. A systematic literature review on accelerators. Indianapolis ; Los Angeles : Technology Transfer Society.

CULLEN, U.A. and DE ANGELIS, R., 2021. Circular entrepreneurship: A business model perspective. Resources, Conservation and Recycling, 168, pp. 105300

CUNNINGHAM, J.A., LEHMANN, E.E. and MENTER, M., 2021. The organizational architecture of entrepreneurial universities across the stages of entrepreneurship: a conceptual framework. Boston, Mass. : Kluwer Academic Publishers.

DAHLANDER, L. and MAGNUSSON, M., 2008. How do firms make use of open source communities? Long range planning, 41(6), pp. 629-649.

DE CLERCQ, D. and VORONOV, M., 2009. Toward a Practice Perspective of Entrepreneurship: Entrepreneurial Legitimacy as Habitus. International Small Business Journal, 27(4), pp. 395-419.

DE SILVA, M. and WRIGHT, M., 2019. Entrepreneurial co-creation: societal impact through open innovation. R&D Management, 49(3), pp. 318-342.

DIEZ, M.F.J. et al., 2021. Insolvency Prospects Among Small-and-Medium-Sized Enterprises in Advanced Economies: Assessment and Policy Options. International Monetary Fund.

DJELASSI, S. and DECOOPMAN, I., 2013. Customers' participation in product development through crowdsourcing: Issues and implications. Industrial Marketing Management, 42(5), pp. 683-692.

DONALDSON, C. and MATEU, G., 2021. New venture creation: a systematic review of associated literature. Cartago, Costa Rica : Instituto Tecnológico de Costa Rica.

DUPONT, L., 2019. Agile innovation: Creating value in uncertain environments. Journal of Innovation Economics Management, (1), pp. 1-5.

EABRASU, M., 2021. Bet against yourself: integrating insurance and entrepreneurship. Journal of Institutional Economics, , pp. 1-14

EDDINGTON, A.S. and PLAKIDIS, S., 1929. Irregularities of period of long-period variable stars. Monthly Notices of the Royal Astronomical Society, 90(1), pp. 65-71

EDELMAN, L. and YLI–RENKO, H., 2010. The impact of environment and entrepreneurial perceptions on venture-creation efforts: Bridging the discovery and creation views of entrepreneurship. Entrepreneurship Theory and Practice, 34(5), pp. 833-856.

ERHARD, F., JUKSCHAT, N. and SAMMET, K., 2021. Lost in Translation? Openness, Reflexivity and Pragmatism as Guiding Principles for Cross-Language Qualitative Research. Forum Qualitative Sozialforschung/Forum: Qualitative Social Research. DEU.

ETIKAN, I., MUSA, S.A. and ALKASSIM, R.S., 2016. Comparison of convenience sampling and purposive sampling. American journal of theoretical and applied statistics, 5(1), pp. 1-4

European Economic Blogs. 2021. Innovative startup firms and the patent system. [online] Available at: <https://european.economicblogs.org/voxeu/2018/startup-firms-patent-system> [Accessed 2 September 2021].

FERREIRA, J.J.M., FERNANDES, C.I. and KRAUS, S., 2019. Entrepreneurship research: mapping intellectual structures and research trends. Berlin ; Heidelberg : Springer.

Fonseca, X., Slingerland, G., Lukosch, S. and Brazier, F., 2021. Designing for meaningful social interaction in digital serious games. *Entertainment Computing*, *36*, p.100385.

Frey, B.S. and Gullo, A., 2021. Does Sports Make People Happier, or Do Happy People More Sports? Journal of Sports Economics, 22(4), pp.432-458.

GABOR, M.R., 2007. Types of non-probabilistic sampling used in marketing research.„Snowball" sampling. Management & Marketing-Bucharest, (3), pp. 80-90

Gaponenko, T., Dovbysh, V., Filin, N. and Bulatova, R., 2021. Building a value-based human resource management system. In E3S Web of Conferences (Vol. 273, p. 08010). EDP Sciences.

GARFINKEL, H., 1967. Ethnomethodology. Studies in ethnomethodology,

GAST, J., GUNDOLF, K. and CESINGER, B., 2017. Doing business in a green way: A systematic review of the ecological sustainability entrepreneurship literature and future research directions. Journal of Cleaner Production, 147, pp. 44-56.

GHEORGHIU, G. et al., 2021. CREATING A SUSTAINABLE ENTREPRENEURIAL ECOSYSTEM AT HIGHER EDUCATION INSTITUTION LEVEL. Economic Computation & Economic Cybernetics Studies & Research, 55(2),

GHIO, N., GUERINI, M. and ROSSI-LAMASTRA, C., 2019. The creation of high-tech ventures in entrepreneurial ecosystems: exploring the interactions among university knowledge, cooperative banks, and individual attitudes. Small Business Economics, 52(2), pp. 523-543.

Ghosh, S., 2021. Entrepreneurship Development.

GIBBS, G.R., 2007. Thematic coding and categorizing. Analyzing qualitative data, 703, pp. 38-56

GOFFMAN, E., 1959. The moral career of the mental patient. Psychiatry, 22(2), pp. 123-142

GORMAN, M. and SAHLMAN, W.A., 1989. What do venture capitalists do? Journal of business venturing, 4(4), pp. 231-248.

GRAHAM, B., 2000. Interactive environments. School science review, 82(299), pp. 33-36.

HALLEN, B.L., COHEN, S.L. and BINGHAM, C.B., 2020. Do Accelerators Work? If So, How? Organization Science.

Hallsworth, M., Parker, S. and Rutter, J., 2022. Policy making in the real world. [online] The Institute for Government. Available at: <https://www.instituteforgovernment.org.uk/publications/policy-making-real-world> [Accessed 17 March 2022].

HANANDEH, R. et al., 2021. The impact of entrepreneurship education on innovative start-up intention: the mediating role of entrepreneurial mind-sets. World Journal of Entrepreneurship, Management and Sustainable Development,

HANDFIELD, R., PETERSEN, K., COUSINS, P. and LAWSON, B., 2009. An organizational entrepreneurship model of supply management integration and performance outcomes. International Journal of Operations & Production Management, 29(2), pp. 100-126.

HEGEMAN, P.D. and SØRHEIM, R., 2021. Why do they do it? Corporate venture capital investments in cleantech startups. Journal of Cleaner Production, 294, pp. 126315.

HENNINK, M., HUTTER, I. and BAILEY, A., 2020. Qualitative research methods. SAGE Publications Limited.

HERBERT, B., 1969. Symbolic interactionism. Perspective and method.Englewood Cliffs: PrenticeHall,

HOLLSTEIN, B. and KUMKAR, N.C., 2021. Qualitative methods. Soziologie: Sociology in the German Speaking World, Berlin: De Gruyter

HOMANS, G.C., 1961. The humanities and the social sciences. American Behavioral Scientist, 4(8), pp. 3-6

Hormiga, E. and Jaén, I., 2021. Why does she start up? The role of personal values in women's entrepreneurial intentions. International Journal of Entrepreneurship and Small Business, 44(1), pp.53-74.

Hueso Arrabal, J.A., Jaén Figueroa, I. and Linán, F., 2021. From personal values to entrepreneurial intention: a systematic literature review.

HUWS, U., 2015. Platform labour or 'Crowdsourcing'. presentation given at CEPS Winter School "From Uber to Amazon Mechanical Turk: Non-traditional labour markets driven by technological and organisational change", INGRID FP7, CEPS, Brussels, , pp. 23-25.

INVESTABERDEEN, 2021-last update, Welcome to Invest Aberdeen [Homepage of Invest Aberdeen], [Online]. Available: https://investaberdeen.co.uk/ [05/05, 2021].

IQBAL, Q. and AHMAD, N.H., 2021. Challenges for Pakistani SMEs in industry 4.0: Applications of disruptive technologies. Research Anthology on Cross-Industry Challenges of Industry 4.0. IGI Global. pp. 1959-1967

ISACSSON, H. and KITTLE, J., 2019. Forming a Supply Chain Strategy for a Startup.

JANTSCH, P., 2021. On Cultural Entrepreneurship.

JARCHOW, S. and RÖHM, A., 2019. Patent-based investment funds: From invention to innovation. The Journal of Technology Transfer, 44(2), pp. 404-433.

JOHNSON, D., BOCK, A.J. and GEORGE, G., 2019. Entrepreneurial Dynamism and the Built Environment in the Evolution of University Entrepreneurial Ecosystems.

JONES, P. and RATTEN, V., 2021. Knowledge spillovers and entrepreneurial ecosystems,

JONES, P. et al., 2021. An exploration of the role and contribution of entrepreneurship centres in UK higher education institutions. Journal of Small Business and Enterprise Development,

KAHN, K.B., CASTELLION, G. and GRIFFIN, A., 2005. The PDMA handbook of new product development. Wiley Hoboken, NJ.

KÄLVIÄINEN, H. et al., 1995. Probabilistic and non-probabilistic Hough transforms: overview and comparisons. Image and Vision Computing, 13(4), pp. 239-252

KASSENBERG, E.P., 2021. New Problems for Moral Anti-Realism.

KATO, A., 2021. A LITERATURE REVIEW OF VENTURE CAPITAL FINANCING AND GROWTH OF SMES IN EMERGING ECONOMIES AND AN AGENDA FOR FUTURE RESEARCH. Academy of Entrepreneurship Journal, 27(1), pp. 1-17

Kim, M., 2020. A systematic literature review of the personal value orientation construct in hospitality and tourism literature. *International Journal of Hospitality Management*, *89*, p.102572.

KIMMONS, R., 2022. Mixed methods. Education Research,

KON, F. et al., 2014. A panorama of the Israeli software startup ecosystem. Available at SSRN 2441157,

KOOIMAN, J., 2003. Governing as governance. Sage.

KRAUS, S., ROIG-TIERNO, N. and BOUNCKEN, R.B., 2019. Digital innovation and venturing: an introduction into the digitalization of entrepreneurship. Review of Managerial Science, , pp. 1-10.

KUCKERTZ, A., HINDERER, S. and RÖHM, P., 2019. Entrepreneurship and entrepreneurial opportunities in the food value chain. npj Science of Food, 3(1), pp. 6.

KUSA, R., MARQUES, D.P. and NAVARRETE, B.R., 2019. External cooperation and entrepreneurial orientation in industrial clusters. Entrepreneurship & Regional Development, 31(1-2), pp. 119-132.

LÅNGSTEDT, J. and MANNINEN, T., 2021. Basic Values and Change: A mixed methods study. Journal of Change Management, 21(3), pp. 333-357

LEE, H.L., 2002. Aligning supply chain strategies with product uncertainties. California management review, 44(3), pp. 105-119.

LEE, J.A. et al., 2021. Are value–behavior relations stronger than previously thought? It depends on value importance. European Journal of Personality, , pp. 08902070211002965

LEVASSEUR, L., JOHAN, S. and ECKHARDT, J., 2022. Mixed methods in venture capital research: An illustrative study and directions for future work. British Journal of Management, 33(1), pp. 26-45

LIDZ, V.M., 2021. The Theory of Action and the Analysis of Culture. The Routledge International Handbook of Talcott Parsons Studies. Routledge. pp. 48-68

LOUNSBURY, M., CORNELISSEN, J., GRANQVIST, N. and GRODAL, S., 2019. Culture, innovation and entrepreneurship. Innovation, 21(1), pp. 1-12.

LOW, M.B., 2001. The adolescence of entrepreneurship research: Specification of purpose. Entrepreneurship theory and practice, 25(4), pp. 17-26

LUHMANN, N., 1995. Social systems. stanford university Press.

MAC MANUS, S., Dialogues about Data.

MAHAT-SHAMIR, M., NEIMEYER, R.A. and PITCHO-PRELORENTZOS, S., 2021. Designing in-depth semi-structured interviews for revealing meaning reconstruction after loss. Death studies, 45(2), pp. 83-90

MALECKI, E.J., 2018. Entrepreneurship and entrepreneurial ecosystems. Geography compass, 12(3), pp. e12359

MELTZER, A., DOWSE, L., SMITH, L. and DEW, A., 2020. A framework for interconnected benefits of peer support for family members of people with disability. Australian Journal of Social Issues, .

MERRIAM, S.B., 1998. Qualitative Research and Case Study Applications in Education. Revised and Expanded from" Case Study Research in Education.". ERIC.

MORENO-GÓMEZ, J. and LAFUENTE, E., 2019. Analysis of competitiveness in Colombian family businesses. Competitiveness Review: An International Business Journal, .

MYGOV, S., 2021-last update, Access to public services in Scotland [Homepage of Scottish Government], [Online]. Available: https://www.mygov.scot/ [05/05, 2021].

NANDA, R. and RHODES-KROPF, M., 2013. Innovation and the financial guillotine, .

NEERGAARD, H. and ULHØI, J.P., 2007. Handbook of qualitative research methods in entrepreneurship. Edward Elgar Publishing.

NEESSEN, P.C.M., DE JONG, J.P., CANIËLS, M.C.J. and VOS, B., 2021. Circular purchasing in Dutch and Belgian organizations: The role of intrapreneurship and organizational citizenship behavior towards the environment. Journal of Cleaner Production, 280, pp. 124978.

Ovchinnikova, A. and Topoleva, T., 2021. The regional accelerator as a driver for the development of an innovative environment and technological entrepreneurship. SHS Web of Conferences, 116, p.00053.

PACKARD, M.D., 2017. Where did interpretivism go in the theory of entrepreneurship? Journal of Business Venturing, 32(5), pp. 536-549.

PARK, I. and PANAGOPOULOS, A., 2019. Patent Protection, Startup Takeovers, and Open Innovation. International Journal of the Economics of Business, 26(1), pp. 39-64.

PARSONS, T.E. and SHILS, E.A., 1951. Toward a general theory of action.

PAYMENTSENSE, 2018-last update, The 15 Best Cities to start a business. Available: https://www.paymentsense.com/uk/blog/15-best-cities-to-start-a-business-2018/ [05/05, 2021].

PESCE, D., NEIROTTI, P. and PAOLUCCI, E., 2019. When culture meets digital platforms: value creation and stakeholders' alignment in big data use. 22(15), pp. 1883-1903.

POUSTI, H., URQUHART, C. and LINGER, H., 2021. Researching the virtual: A framework for reflexivity in qualitative social media research. Information Systems Journal, 31(3), pp. 356-383

RAE, D., 2019. Entrepreneurship in the Open Space: a New Dynamic for Creating Value? Emerald, .

Revisiting the difference between mixed methods and multimethods: Is it all in the name? 2018. Dordrecht : then] Berlin : Kluwer Academic Publishers.

RONKAINEN, N.J. and WILTSHIRE, G., 2021. Rethinking validity in qualitative sport and exercise psychology research: A realist perspective. International Journal of Sport and Exercise Psychology, 19(1), pp. 13-28

ROUNDY, P.T., BRADSHAW, M. and BROCKMAN, B.K., 2018. The emergence of entrepreneurial ecosystems: A complex adaptive systems approach. Journal of Business Research, 86, pp. 1-10.

RUSH, H., MARSHALL, N., BESSANT, J. and RAMALINGAM, B., 2021. Applying an ecosystems approach to humanitarian innovation. Technological Forecasting and Social Change, 165, pp. 120529.

RYCROFT, R.W., 2007. Does cooperation absorb complexity? Innovation networks and the speed and spread of complex technological innovation. Technological Forecasting and Social Change, 74(5), pp. 565-578.

SAEBI, T., FOSS, N.J. and LINDER, S., 2019. Social entrepreneurship research: Past achievements and future promises. Journal of Management, 45(1), pp. 70-95

SALAMZADEH, A., 2015. Innovation accelerators: Emergence of startup companies in Iran, 60th Annual ICSB World Conference June 2015, pp. 6-9.

SALDAÑA, J., 2021. The coding manual for qualitative researchers. sage.

SARIPAH, I., ABDUHAK, I., HERYANTO, N., LESTARI, R.D. and PUTRA, A., 2020. STUDY ON EVALUATION OF STARTUP BUSINESS TRAINING MODELS IN THE ENTREPRENEURSHIP SKILLS EDUCATION PROGRAM AT WEST JAVA COURSE AND TRAINING INSTITUTE, INDONESIA. International E-Journal of Advances in Social Sciences, 5(15), pp. 1340-1348.

SAUNDERS, M.N.K., LEWIS, P. and THORNHILL, A., 2019. Research methods for business students /. Boston: Pearson.

Schwartz, S.H., 1992. Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. In Advances in experimental social psychology (Vol. 25, pp. 1-65). Academic Press.

SCHWARTZ, S.H., 2012. An overview of the Schwartz theory of basic values. Online readings in Psychology and Culture, 2(1), pp. 2307-0919.1116.

SEAWRIGHT, J., 2016. Multi-method social science: Combining qualitative and quantitative tools. Cambridge University Press.

SHEKHAR, P. and HUANG-SAAD, A., 2021. Examining engineering students' participation in entrepreneurship education programs: implications for practice. International Journal of STEM Education, 8(1), pp. 1-15

Sherman, A., Shavit, T., Barokas, G. and Kushnirovich, N., 2021. On the role of personal values and philosophy of life in happiness technology. Journal of Happiness Studies, 22(3), pp.1055-1070.

SHI, J., LI, Q., CHU, L.K. and SHI, Y., 2021. Effects of demand uncertainty reduction on the selection of financing approach in a capital-constrained supply chain. Transportation Research Part E: Logistics and Transportation Review, 148, pp. 102266.

SIEGNER, M., PINKSE, J. and PANWAR, R., 2018. Managing tensions in a social enterprise: The complex balancing act to deliver a multi-faceted but coherent social mission. Journal of Cleaner Production, 174, pp. 1314-1324

SMITH, R., 2020. Understanding the entrepreneur as socially constructed., .

SONG, Y., DANA, L.P. and BERGER, R., 2019. The entrepreneurial process and online social networks: forecasting survival rate. Small Business Economics, , pp. 1-20.

SPIGEL, B., 2017. The relational organization of entrepreneurial ecosystems. Entrepreneurship theory and practice, 41(1), pp. 49-72

STAKE, R.E., 1995. The art of case study research. sage.

STAM, E. and VAN DE VEN, A., 2019. Entrepreneurial ecosystem elements. Small Business Economics, , pp. 1-24.

STAM, E. and VAN DE VEN, A., 2021. Entrepreneurial ecosystem elements. Boston, Mass. : Kluwer Academic Publishers.

STOCK, G.N., TSAI, J.C., JIANG, J.J. and KLEIN, G., 2021. Coping with uncertainty: Knowledge sharing in new product development projects. International Journal of Project Management, 39(1), pp. 59-70.

STRACHAN, R., 2021-last update, Aberdeen: A city in transition [Homepage of Invest Monitor], [Online]. Available: https://investmentmonitor.ai/cities/aberdeen-a-city-in-transition [05/05, 2021].

STRAUSS, A.L., 1987. Qualitative analysis for social scientists. Cambridge university press.

TEECE, D.J., 2012. Dynamic capabilities: Routines versus entrepreneurial action. Journal of management studies, 49(8), pp. 1395-1401.

THAKUR, G.H., 2019. Entrepreneur Icons of Modern India: Their Role in Economic Transformation.

The Guardian, 2016. Where's the best place to start a business? The Guardian. Available at: https://www.theguardian.com/small-business-network/2016/feb/29/wheres-best-place-start-business-funding-success [Accessed August 29, 2021].

TING-TOOMEY, S. and DORJEE, T., 2018. Communicating across cultures. Guilford Publications.

Tomczyk, D., Lee, J. and Winslow, E., 2013. Entrepreneurs' personal values, compensation, and high growth firm performance. Journal of Small Business Management, 51(1), pp.66-82.

TRIPATHI, N. and OIVO, M., 2020. The Roles of Incubators, Accelerators, Co-working Spaces, Mentors, and Events in the Startup Development Process. Fundamentals of Software Startups. Springer, pp. 147-159.

TU, C. and YANG, S., 2013. The role of entrepreneurial creativity in entrepreneurial processes. International Journal of Innovation, Management and Technology, 4(2), pp. 286.

TURNER, J.H., 1986. The mechanics of social interaction: Toward a composite model of signaling and interpreting. Sociological Theory, 4(1), pp. 95-105

Uk, G., 2021. Intellectual property: Patents - detailed information - GOV.UK. [online] Gov.uk. Available at: <https://www.gov.uk/topic/intellectual-property/patents> [Accessed 2 September 2021].

VAN DE VEN, H., 1993. The development of an infrastructure for entrepreneurship. Journal of Business Venturing, 8(3), pp. 211-230

VAN OVERWALLE, G., 2021. Open innovation, IP ownership and biotechnology: an exemplary case study in the Covid-19-pandemic.

VOLKER, L., 2019. Looking out to look in: inspiration from social sciences for construction management research. Construction Management and Economics, 37(1), pp. 13-23.

WENDT, A., 1994. Collective identity formation and the international state. American political science review, 88(2), pp. 384-396

WENDT, A., 1999. Social theory of international politics. Cambridge University Press.

WHITTEMORE, R., CHASE, S.K. and MANDLE, C.L., 2001. Validity in qualitative research. Qualitative health research, 11(4), pp. 522-537

WOOLF, N.H. and SILVER, C., 2017. Qualitative analysis using NVivo: The five-level QDA® method. Routledge.

Wurth, B., Stam, E. and Spigel, B., 2021. Toward an entrepreneurial ecosystem research program. *Entrepreneurship Theory and Practice*, p.1042258721998948.

YAZAN, B., 2015. Three approaches to case study methods in education: Yin, Merriam, and Stake. The qualitative report, 20(2), pp. 134-152.

YIN, R.K., 2012. Case study methods.

Appendices

Appendix 1 – Sample Interview Guide

No.	Question	Scope
1.	How did you start your entrepreneurial journey in Aberdeen?	1. Revisiting motivation for venturing into entrepreneurship and capturing various methods used. 2. Opening a context into how integrating into the Aberdeen ecosystem has influenced the entrepreneur personally.
2.	In what ways did joining a program in the Aberdeen ecosystem impact your entrepreneurial journey?	1. Exploration into personal value creation through the sample's interaction contexts and techniques in integrating into the Aberdeen Ecosystem as a nascent entrepreneur.
3.	What would you say have been your successes within the Aberdeen ecosystem? How does this make you feel?	1. Further exploration into personal value creation within the Aberdeen Ecosystem. 2. Investigating for contexts of interaction with other functional elements of the ecosystem.
4.	What kind of one-on-one conversation did you have with other individuals in the entrepreneurial ecosystem?	1. Exploration of quality of social interaction within the Aberdeen ecosystem, where impact is an indicator for quality.

5.	What kind of connections were you able to build with other individuals in the entrepreneurial ecosystem?	1. Setting context for visiting informal social interaction.
6.	What kind of interactions do you have with these connections?	1. Exploration of quality of information in informal social contexts among social actors in the Aberdeen Ecosystem, and the possibility of purely social-personal value creation.
7.	How would you say making connections in the entrepreneurial ecosystem impacts interacting with individuals in your daily life?	1. An exploration of how personal value creation in the ecosystem diffuses into in social values in everyday life.
8.	If you are happy to be part of the Aberdeen Ecosystem, how would you recommend this opportunity to a friend?	1. Exploration of other values which exist and are created during interaction within the Aberdeen ecosystem which the researcher has not predetermined.

Appendix 2 - Codebook

Name	Description
Achievement	Personal success often defined by demonstrating competence by social standards. Achievement often leads to acquiring resources which individuals need to survive and often leads to gaining social approval.
Benevolence	Preserving and enhancing welfare of those constantly around the individual. The need for smooth group functioning and the need for personal affiliation.
Conformity	Restraint of actions, inclinations or impulses that would threaten expectations and norms. Practicing self-restraint due to the need for smooth interaction and group functioning.
Hedonism	Intrinsic pleasure or gratification. Need for pleasure and satisfaction.
Interaction	Understanding the need to traverse one's self through exchange of values using language. The need to traverse one's self in sharing moments with other social actors; often expressed as values through language.
Power	Social status, prestige, dominance or control over people or resources. The need for social institutions to have some degree of status differentiation has made power an accepted value. It is viewed as a transformation of the individuals need for dominance and control.
Security	Safety, harmony, stability of social relationships and self. The need to preserve one's self or a group, where the group is determined by the person who identifies with it.
Self-direction	Independent thought and action expressed in decision, creativity and exploration. Need for control, mastery, satisfy curiosity, autonomy and independence.

Name	Description
Stimulation	Excitement, novelty and challenge in life. Need for variety and level of activation for an optimal and positive life. Often underlies self-direction values.
Tradition	Respect, commitment and acceptance of one's culture or religious provisions. Shared practices, symbols, ideas, beliefs developed and reinforced in the need for the group's solidarity, expressing the groups uniqueness and for survival.
Universalism	Understanding, appreciation, tolerance, and protection of all people and for nature. The need to accept all within and outside one's primary group. This creates an understanding of universal interrelationship and interdependence which births two subgroups of concern – the welfare of those in the larger society and world, and the welfare of nature.

Appendix 3 – Breakdown of Themes Captured A

A. INTERVIEW TITLE	Question 1	Question 2	Question 3
A	Self-direction I guess I've always had leanings to do something myself. Interaction Need for expression	Joined the accelerator as a result of interacting with someone who knew about the ecosystem. Motivated by financial and learning opportunity	Being able to interact (self-expression) Achievement through increased capacity in learning Hedonism in deriving pleasure from the process
B	Universalism and benevolence shown in love for the planet as motivation. Developed technology that needed funding.	Joined accelerator to seek funding and retire	Feeling of universalism from being around likeminded people Having the opportunity to develop a network with likeminded people and people to learn from Starting up multiple businesses that can now employ staff concentrically
C	Started entrepreneurial	Joined ecosystem through university accelerator.	Development of networks with likeminded people

	journey straight out of university. Through achievements has gained a larger network and continued growing within the ecosystem based on opportunities that present themselves in interaction	Emphasised the role of the accelerator in enabling the sample integrate into the ecosystem through connections with likeminded people	Achievement felt in improved competence
D	Grew up in Aberdeen however, joined the ecosystem to show benevolence in solving a health issue.	Joined the ecosystem after receiving information about the accelerator on the alumni network	Accrues success (achievement) to having the opportunity to have conversations with the 'right' people – power in social recognition, interaction and hedonism
E	Practiced entrepreneurship in the past outside the Aberdeen ecosystem and experienced achievement and power.	Joined the Aberdeen ecosystem after attending a networking event and having a conversation with an acquaintance and has maintained this network.	Creating valuable connections with talent within the ecosystem through social events, hubs and the accelerator Increased capacity Gaining financial support

F	Started with an idea in mind. Achievements in learning, stimulation and maintaining networks has played a part in keeping the actor as part of the system.	Joined the accelerator program based on a referral from a contact.	Making likeminded friends and connections Expanding these networks on a need basis through referrals Expanding product knowledge through feedback from networks
G	Self-direction, achievement, power and stimulation gotten from entrepreneurship stand out as primary drivers.	Part of the ecosystem accelerator currently as a co-founder in a contacts company.	Creating networks with people within and outside the ecosystem who actively contribute to the sample's business
H	Hedonism, Achievement and self-direction stand out as primary motivation in the past.	Heard about the accelerator on the student grapevine and applied for funding for a social health development project	Establishing connections with networks which led to increased capacity Feedback from networks disrupting primary motivation of sample from monetary based

			goals to socially based goals
I	Self-direction and stimulation shown by an Aberdeen local in moving from employment to business ownership.	Achievement and Power made it possible to become an investor and mentor within the ecosystem.	Achievement accounted for as monetary success Creating a larger customer base Ability to grow other teams and reinvest in other businesses
J	Self-direction shown in wanting own one's destiny. Achievement, Power and Hedonism shown in growth story. Benevolence shown in desire to help others do the same.	Joined the ecosystem as an administrator.	Creating networks to expand capacity through peers and mentorship Ability to access funding

Appendix 4 - Breakdown of Themes Captured B

INTERVIEW TITLE	Question 4	Question 5	Question 6
A	Feelings of universalism from connecting with like-minded actors with similar goals. Respect for tradition show in similar mindsets of social actors	Camaraderie among peers- expressed as contacts Networks including mentors	No single interaction identified, instead a feeling of universalism in belonging during social networking
B	Respect for tradition expressed in open collaboration, like mindedness of peers	Friends and contacts – mostly with peers	No single interaction identified, however, knowledge transfer was recurrent during interaction
C	Sample experiences increase in capacity from interactions within the ecosystem in the form of advice, shared experiences and feedback	Networks – with co-entrepreneurs, mentors and investors	No single interaction identified, rather a series of interactions which lead to knowledge transfer
D	Connections within the ecosystem led to increased capacity in how the sample operates its business.	Friends and contacts – with co-entrepreneurs, veteran entrepreneurs,	Didn’t have as many interactions due to computer mediated delivery of program but interactions had led to achievement

	Interaction within the ecosystem gives sample the feeling of achievement and self-direction through evidence-based decision making	mentors and investors	through new perspectives and knowledge transfer
E	Interacting within the ecosystem increases the samples capacity in moving from being a nascent entrepreneur to where the sample currently is on its journey	Networks with co-entrepreneurs and veteran entrepreneurs	No single interaction identified, however, series of interactions leading to new perspectives through feedback and expansion of existing network and opportunities
F	Universalism derived from like-mindedness of social actors because of similarity in goals and creation of strong bonds. Respect for tradition expressed in feedback	Networks and contacts – with co-entrepreneurs	No single interaction identified, however a connection was identified that impacts sample through feedback and new perspectives, practical support, advise and knowledge transfer

G	Tradition and universalism expressed as open mindedness, being able to receive feedback and practical support from the samples network. Increased capacity and stimulation from gaining new knowledge on how to do things. (support and training)	Connections and contacts with co-entrepreneurs, veteran entrepreneurs and mentors	No single interaction identified, rather the tradition of interaction with open mindedness leading to expansion and disruption in value, new perspectives and opportunities, expansion of networks and knowledge transfer
H	Lots of feedback existent within the entrepreneurial ecosystem networks. Diversity guided in tradition and universalism. Stimulation in finding new perspectives in doing things Open mindedness	Networks and friends with co-entrepreneurs and mentors	Interacting with mentors leading to disruption in values from monetary motivation to social impact

I	Universalism in like mindedness Tradition through similar modalities in interaction lots of feedback and increased capacity opportunities for investment	Networks with peers	Interaction leading to expansion in networks, opportunities, capacity and knowledge transfer
J	Universalism in like mindedness Diversity leading to stimulation in knowledge transfer across industries Ability to identify with traditions that deliver a sense of belonging leading to community building	Connections with nascent entrepreneurs, veteran entrepreneurs, mentors, investors and admin	Interaction leading to knowledge transfer, universalism, respect for tradition, new perspective, access to support and investment

Appendix 5 - Breakdown of Themes Captured C

INTERVIEW TITLE	Question 7	Question 8
A	Achievement expressed as growth in capacity leading to confidence in daily endeavour Increased level in desire and practical human interaction as encouraged in the accelerator	Joining the accelerator and interacting with as many actors as possible
B	Confidence developed from feeling of universalism and confidence which can be reflected in the work place	Join networking events before seeking financial support from institutions
C	Development and creation of new values reflected in daily routines Increase in capacity as to how to undergo new endeavours	Expand network and understanding of product by speaking to as many people as possible and being open to feedback.
D	Learning to appreciate the process of unlearning and relearning to develop new perspectives to looking at things	Speaking with as many people as possible and researching idea.

		Also, joining the accelerator with the intent to expand networks and learn more
E	Development in character shown as a reflection of new values. Being open minded. Increased knowledge on the human psyche, team leadership and management reflected in everyday business acumen.	Developing a prototype or business plan around idea and then joining an ecosystem institution such as the accelerator or incubator.
F	Learning to persevere and be genuine even when what you're offering isn't attractive	Reaching out to other entrepreneurs with your idea and developing a similar mindset to help expand networks
G	Learning to appreciate how much work and effort that goes into making an endeavour successful. Gaining the basic capacity to undertake endeavours.	Expanding networks and learning from other entrepreneurs from socialising before joining an accelerator/incubator program

		Must be ready to learn from others
H	Being open minded. Looking at situations from new perspectives.	Directly through recommending perks such as the level of security. Joining existent ecosystem institutions such as the accelerator
I	Being part of a robust network that is driven by entrepreneurial achievement daily which promotes productivity in knowledge transfer, finance and diffusion of opportunities	Joining an accelerator to gain financial support, technical support and expand networks
J	Need for emphasising interaction within the ecosystem – this has led investing in opening up of more open innovation spaces and hubs.	Making connections and building a formidable team before joining the accelerator where the entrepreneur and co-founders can expand concentrically in increased capacity, sourcing finance and expanded networks