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High Skilled Migrant Entrepreneurship in the Technology Sector: Business Accelerators and the Opportunity Structure

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Thesis submitted for the degree of Doctor of Philosophy in Management

University of Sussex

September 2018

Declaration

I hereby declare that this thesis has not been and will not be, submitted in whole or in part to another University for the award of any other degree. However, small sections of Chapter 3 have been submitted as part of required coursework for the Postgraduate Diploma in Social Research Methods which was attained while working towards this PhD.

Signature:

Abstract

Situated at the intersection of migrant entrepreneurship and high-tech entrepreneurship studies, this thesis examines the ways in which entrepreneurs negotiate their experiences using business accelerators officially endorsed by the British Government. To do so, this research uses a 'mixed embeddedness' framework due to its relational nature, whereby both structure and agency are taken into account. However, due to its lack of specificity on resources and institutions within the tech sector, this research also draws on the concept of the 'entrepreneurial ecosystem'.

Drawing empirically on interviews with 45 entrepreneurs who have taken part in the aforesaid business accelerator programmes in the United Kingdom between 2011 and 2016, the thesis finds that the business accelerators shape the structure of opportunities available to high-tech entrepreneurs at the macro, meso and micro levels. At the macro level, accelerators are one of the few remaining routes for new migrants to start a business, highlighting a selective migration regime where legislation also invariably dictates the kinds of businesses it prefers. However, through 'accelerator hopping', entrepreneurs actively used them to gain quick access to new markets, thereby shaping the opportunity structure at the meso level. And at the micro level, business accelerators were seen to provide access to resources. Nevertheless, going back once again to the macro level, it was witnessed that the entrepreneurs' ability to draw on those accelerator-provided resources were constrained by how accessible the rest of the institutionally embedded opportunity structure that accelerators are a part of, actually was.

The findings of all the chapters taken together highlight the need for broadening our understanding of institutional frameworks that shape opportunity structures as being 'mostly national in character'. The thesis highlights that the entrepreneurs operate in transnational social spaces which have been mediated through the use of business accelerators. This has indirectly led to the creation of a kind of transnational entrepreneurship which goes beyond the entrepreneur's ties between home and host country, or even diaspora based linkages. Accordingly, the thesis also questions whether the heavy focus on accelerators as important ecosystem actors is warranted. Furthermore, the research indirectly has implications towards understandings of migrant integration, as the broader opportunity structure thus created makes for an entrepreneurship which can now be truly borderless.

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Acronyms

UK	United Kingdom
EEA	European Economic Area
EU	European Union
DIT	Department of International Trade
UKTI	UK Trade and Investment
UKVI	United Kingdom Visas and Immigration
EIS	Enterprise Investment Scheme
SEIS	Seed Enterprise Investment Scheme
VC	Venture Capital
HQ	Headquarters

Chapter 1: Introduction

1.1 Context

This research studies high skilled migrant entrepreneurs in the tech (high-tech) sector in the United Kingdom (UK), and the ways they mediate their entrepreneurship using business accelerators, a by-product of the reformation of policy surrounding high skilled migration and the promotion of technology entrepreneurship.

Tech is a context where highly skilled migration policies have figured prominently in policy debates as part of an agenda to encourage innovation. The value of migrant talent in this agenda is represented by a speech in 2010, by the then Prime Minister David Cameron, at the inauguration of Tech City in London. He stated,

"...we will reform Tier One to make sure that it is genuinely a route only for the best. And as part of that package, I can announce today that we will create a new Entrepreneur Visa. These Entrepreneur Visas will mean that if you have a great business idea, and you receive serious investment from a leading investor, you are welcome to set up your business in our country... We want you; we'll make it easy for you; we'll put out the red carpet for you. With our new Entrepreneur Visa we want the whole world to know that Britain wants to become the home of enterprise and the land of opportunity." (Gov.uk, 2010)

These Entrepreneur Visas are part of the first tier (Tier 1) classification of migratory categories which might be interpreted as highlighting these individuals' value over other migrants. The complete tier is made up of persons of 'exceptional talent' (Paul, 2016; Gov.uk, 2018a) such as world leading artists, scientists (Paul, 2016), and 'role models' in the technology sector (Tech Nation, 2018), which is a result of Britain reforming regulations to counteract a sluggish economy, with the country shifting from a liberal immigration regime to a demand-led framework which is increasingly

selective as well as restrictive (Greene and Hogarth, 2017; Lissoni, 2018). These changes have been incremental with adjustments being made to the points based system of migration since its inception in 2008, a direct result of the economic crisis preceding that period (Greene and Hogarth, 2017).

Thus, it might be noted that the introduction of these Tier 1 entrepreneur visas is in keeping with other policy reforms limiting migration in the UK to more exclusive groups of 'desirable' migrants (Desiderio, 2014). Not only has a cap on migration numbers been placed, but this cap has included high skilled migration, and visa sponsorship has been mandated in almost all cases (Cerna, 2016). Accordingly, business accelerators have been offered by policy as sponsors or facilitators of the migration of these entrepreneurs, with the amount of funds needed to obtain the said visas getting substantially reduced with accelerator backing (Gov.uk, 2018 a, b).

While the UK continues to reform its policy, a large number of other countries have also engaged in the use of business accelerators and innovation centres to attract migrant entrepreneurs (Herrington, 2017). As accelerators have only recently become a focus of academic enquiry (Cohen 2013; Cohen and Hochberg 2014; Hochberg 2016), this promotion may be a direct result of its popularity, as business accelerators offer both start-up finance through seed competitions as well as continuing know-how support through a short term-intensive programme (Miller and Bound, 2011). They are therefore looked on favourably in the start-up community due to their 'boot camp' process. Boot camps speed up either the growth or failure of a venture and are hence relatively popular among entrepreneurs who want quick results to ascertain whether their idea is scalable or not (Haines, 2014). Chile for example, has had a policy success utilising accelerators to attract over a thousand entrepreneurs in technology with the promise of initial funding, key networks, and expert mentorship through their

programmes (West and Karsten, 2015). This programme was adapted from policy reforms initially made in New Zealand (Herrington, 2017). Similarly, the Canada Accelerator and Incubation Programme, part of the Government of Canada's Venture Capital Action Plan, directly funds outstanding accelerators to improve the offerings for early stage migrant and non-migrant firms to help them develop into sustainable, high growth firms (NRCC, 2016). To some extent similar programs exist in France, Ireland, the Netherlands, Singapore, Peru, Portugal, Slovenia, and Thailand (EU Impact Assessment, 2016; Herrington, 2017). Thus, despite the relatively low numbers of individuals this reform actually involves, the importance of business accelerators in high skilled migrant entrepreneurship cannot be ignored.

1.2 Aims and Structure of this Thesis

This thesis specifically investigates the ways high skilled migrant entrepreneurs operating in the technology sector explore opportunities, and mobilise resources, by examining the following key question.

Research Question – How do high skilled migrant entrepreneurs in the tech sector navigate their entrepreneurship with the use of business accelerators?

The extant literature however has focussed very little on high skilled migrant entrepreneurs, but this more recent type of entrepreneurship, whereby entrepreneurs are essentially 'recruited' to the UK through business accelerators is completely underresearched. Furthermore, even when research has focussed on tech migrant entrepreneurship, this literature has attempted to establish newer forms of diaspora based linkages (Saxenian, 2001, 2002; Bagwell, 2014; Brzowski et al, 2017).

Likewise, 'forms of capital' (Bourdieu, 1983; 1986, 1997) and 'mixed embeddedness' models (Kloosterman et al 1999; Kloosternman and Rath, 2001; Kloosterman, 2010) have been frequently used to explain the diversion of migrant entrepreneurship from mainstream entrepreneurship (for e.g. Ram et al, 2008; Vershinina et al, 2011), with only recent literature attempting to expand these theories beyond a singular host country perspective (for e.g., Bagwell, 2018). Therefore, high skilled migrant entrepreneurship which has been brought about by selective migration policies, needs to be distinguished from both ethnicity-based migrant entrepreneurship (e.g. Light et al. 1994) and the 'transnationalism' of entrepreneurship which occurs within a home-host dichotomy (e.g. Portes et al. 1999; Portes et al. 2002).

To understand the behaviour of high-tech migrant entrepreneurs, this thesis is situated within migrant and tech entrepreneurship literature and uses a 'mixed embeddedness' (Kloosterman et al, 1999) framework due to its relational nature whereby both structure and agency are taken into account. According to Kloosterman et al (1999) and Kloosterman and Rath (2001), the aim of endorsing the theory of mixed embeddedness was to highlight the fact that the foundations of migrant entrepreneurship are based on more than the entrepreneur's social embeddedness in co-ethnic social networks. They emphasised that markets and the regulatory frameworks of the local context are also fundamental in understanding this field. Kloosterman (2010) further built on this conception to put stronger emphasis on the three levels of analysis in understanding the entrepreneurial opportunities available to migrants. Kloosterman (ibid) presents an analytical framework which combines 'the micro level of the individual entrepreneur (with his or her resources) with the meso-level of the local opportunity structure and links the latter in a more loose way to the macro-institutional framework' (p. 25). This framework, as Kloosterman (2010: 28) states, helps 'address the question of patterns of

variation in migrant entrepreneurship – between groups, sectors, between place and between countries'. In this framework, a 'simple model of the opportunity structure' (Kloosterman, 2010: 28), is put forth. The focus here is on accessibility of markets, where lack of capital (financial, human and social) not only limits an entrepreneur's ability to enter certain markets but also limits his/her ability to expand a fledgling business. As Kloosterman (2006: 4) has stated, 'opportunities occur in markets... to be able to start a particular business in a market where a demand seems to exist, an aspiring entrepreneur has to have the right kind of resources'. Thus, the meso level of the local opportunity structure is highly dependent on the micro level of the entrepreneur and his resources. However, the number of opportunities in various markets being generated for entrepreneurs is also highly dependent on geographical location, political climate, and the regulatory framework supporting migrant entrepreneurship. Kloosterman (2010) points to specific macro-institutional factors such as the overall development of the country, state intervention in the labour market, business regulation, and the different relationships that exist between various economic actors. Thus, the opportunity structure is also clearly institutionally embedded. Therefore, the overall structure of opportunities affecting migrant entrepreneurship is dependent on inter-related factors at the three levels of micro, meso, and macro.

However, if one were to consider the 'mixed embeddedness' of migrant entrepreneurs in the technology sector, further acknowledgement has to be made to the concept of the 'entrepreneurial ecosystem' (Isenberg, 2010) which does bear similarity to the former model, and complements it as well. An 'entrepreneurial ecosystem' concept, however, is focussed more on the factors which drive high growth entrepreneurship and relies on the presence of certain 'pillars' which make a successful ecosystem easy to imitate. This policy oriented perspective of entrepreneurship (Stam, 2015), is therefore not

analytical, but rather prescriptive in nature. Nonetheless, while it has been acknowledged that the ecosystem literature is philosophically and theoretically different from that of mixed embeddedness, this should not overshadow its similarities and how it complements the latter. As the mixed embeddedness theory lacks specificity about the resources and institutions that migrant entrepreneurs in tech have access to, and are affected by, the entrepreneurial ecosystem literature provides insight to the functioning of the tech sector more generally. The ecosystem literature talks specifically about the need for a supportive community of financiers, mentors, companies and events that help foster startups (Feld, 2012). It also highlights the need for governments to understand the unique processes of startups and put in place appropriate policies (ibid). It is also this literature which highlights the need for specific mechanisms to encourage innovation, and it is here, where a practical discussion of business accelerators may also be found (e.g. Fehder and Hochberg, 2015; Goswami et al, 2018; Vanaelst et al, 2018; Van Hove et al, 2018). The term 'entrepreneurial ecosystem' is also popular among practitioners and policy makers alike. While this popularity leads to varying interpretations of what defines its 'success' (Oh et al, 2016), ignoring the terminology in the thesis is as good as ignoring its very existence.

Therefore, with the acknowledgement that both structure and agency are consequential in migrant entrepreneurship, interviews with 14 entrepreneurs from countries outside the European Economic Area (EEA), 16 entrepreneurs from countries within the EEA and 15 entrepreneurs from the UK who took part in UK Home Office endorsed business accelerator programs between 2011 and 2016, were conducted. The interviewees were divided into these three groups to understand whether the decisions the entrepreneurs made were policy necessitated or whether this was a wider trend

indicative of the nature of tech. Questions surrounded their background, operations, access to capital, use of accelerators and their experiences.

Based on the interviews, and consistent with the theory of mixed embeddedness, it was found that while the entrepreneurs are influenced by social, economic and institutional forces, the decision to migrate and mobilise resources using an accelerator allowed them to exert their own agency and provide opportunities to uniquely shape these forces. However, since the decision to migrate to a certain country is based on the overall opportunities available there, the decision to use an accelerator was found to be noteworthy at the macro, meso and micro levels. In this thesis, micro, meso and macro refer once again to micro level access to resources, meso level access to markets, and overall macro institutions affecting the opportunity structure for migrant entrepreneurship, but in particular, its relationship to accelerators. At the macro level, accelerators have been actively promoted to encourage innovation in the country. But at the same time, accelerators are also one of the few remaining routes for new migrants to start a business, highlighting a selective migration regime where legislation also invariably dictates the kinds of businesses it prefers. However, through 'accelerator hopping', entrepreneurs actively used them to gain quick access to new markets, thereby shaping the opportunity structure at the meso level. And at the micro level, business accelerators were seen to provide access to resources. Nevertheless, going back once again to the macro level, it was witnessed that the entrepreneurs' ability to draw on those accelerator-provided resources was constrained by how accessible the rest of the institutionally embedded opportunity structure actually was. Accordingly, the findings of this research have been presented in the following themes.

a. The agency of the high skilled migrant entrepreneurs in utilising business accelerators to chart their migration.

- b. The interplay of business accelerators and access to resources.
- c. The institutional embeddedness of business accelerators.

Overall, the thesis will show that due to the high levels of human capital that the high skilled entrepreneurs in tech possess and the proliferation of business accelerators, the entrepreneurs operate in 'transnational social fields' (Levitt and Glick Schiller, 2004), where their lives are no longer limited by a home-host dichotomy. This ultimately frees them from the bondage of localised forces of selectivity and bias. This thesis therefore argues that business accelerators are a part of, and even shape a broader opportunity structure that is not local in character. They therefore sit somewhere between national and transnational opportunity structures.

This thesis is structured as follows. After highlighting the analytical framework of this study through unpacking the various related literature surrounding business accelerators, migrant entrepreneurship and tech entrepreneurship (Chapter 2), and describing the methodology of this thesis which also provides further insight into the accelerators in this study, (Chapter 3), the various aspects of the way migrant entrepreneurs' experiences are mediated through the business accelerators are then discussed in Chapters 4, 5 and 6.

Chapter 4 of this thesis examines the agency of entrepreneurs and business accelerators, i.e., how do the entrepreneurs use the opportunity structure which the accelerators are a part of, to thus chart their entrepreneurship and their migration. Unwittingly, this underscores both the macro and the meso level influence of business accelerators in shaping opportunities for high skilled migrants. At the macro level, as stated earlier, using business accelerators which promote technology startups, are one of the few

remaining routes for new migrants to start a business in the UK. However, business accelerators were seen to be actively utilised in providing speedy access to new markets, thereby influencing the opportunity structure at the meso level. Within this, Chapter 4 will further show the transnationalism of the entrepreneurs' migratory histories, underlining how the presence of business accelerators beyond the UK affected their decisions.

Chapter 5 draws attention to how entrepreneurs mobilised resources and converted their capital using business accelerators. This chapter builds on Bourdieu's (1986) theory of capital which argues that capital is accrued labour. When adopted by agents, it allows them to assume 'social energy', which then determines their chances of success. To further elaborate, this theory has been used to underscore the micro level 'influence' of the business accelerator in shaping the opportunity structure, where business accelerators were seen to be used to convert capital from the human to the financial and social, and vice versa. It is observed that business accelerators are a concrete mechanism whereby relatively abstract policies are translated into resources; and accelerators themselves impact on the availability, combination and form of resources used.

Chapter 6 then goes back to the macro level and examines the constraints on how, and how much, entrepreneurs can bank on business accelerators as a resource. The chapter highlights that the 'institutional embeddedness' of the opportunity structure in the UK seems to limit the 'use' of these resources.

The thesis concludes with Chapter 7.

Chapter 2: Literature Review

2.1 Introduction

The previous chapter introduced this thesis which justified the need to study high skilled migrant entrepreneurship. This chapter builds on that to highlight the analytical framework of this thesis which is positioned within migrant entrepreneurship and high-tech entrepreneurship literature. Two key ideas that this thesis draws on are the 'mixed embeddedness' framework (Kloosterman et al, 1999; Kloosterman, 2010) and the concept of the 'ecosystem' (entrepreneurial/innovation; Isenberg, 2010; Jackson, 2011). This thesis places business accelerators as part of the opportunity structure for the expanding post-industrial/high skilled markets. This chapter therefore starts with discussing the concept of the business accelerator. This is followed by debates surrounding the 'mixed embeddedness' of the migrant entrepreneur, which is subsequently followed by tech entrepreneurship and the entrepreneurial ecosystem. The chapter concludes with the analytical framework of this thesis.

2.2 Business Accelerators and the Promotion of High-growth Entrepreneurship

The development of global technological infrastructure has reduced the barriers to accessing information for budding entrepreneurs. Business accelerators, while being a relatively new concept, have gained popularity amongst entrepreneurs, policy makers, and the media (Stam, 2015). This 'idealisation' of business accelerators is representative of an article published in The Economist in 2014, which claimed that accelerators were 'the biggest professional training system you never heard of'.

Statements such as 'raised \$3.2 billion in follow-on funding and generated 'exits' worth \$1.8 billion' (The Economist, 2014) are commonplace in the promotion of the accelerator concept in the media. This thesis however is set against a background of relatively scant literature on business accelerators. Yet, while the current academic literature is limited, and is mostly US centric, it has also failed to take into account the perspective of the entrepreneur. The focus thus far has mostly been policy oriented, with the most comprehensive collection of literature published on accelerators recently this year (Wright and Drori, 2018) highlighting the impact of business accelerators on the economy and on the growth of a 'successful' entrepreneurial ecosystem.

2.2.1 What Accelerators Do

The 'business accelerator model', an idea which was launched in 2005, with the start of Y Combinator in USA, was formulated as a novel way for Venture Capital (VC) organisations to make multiple investments at one go (Miller and Bound, 2011). The popularity of the accelerator model is highlighted by the fact that according to different estimates there are anywhere from 200 to over 2000 accelerators in operation globally (Cohen and Hochberg, 2014; NESTA, 2017; Christiansen, 2018).

The process of accelerating ventures starts with fostering and selecting startups through a competitive process, which is then followed by an intensive limited duration, typically a three month programme, where cohorts of teams are brought together and connected with mentors and extended networks. Access is then provided to all the essential resources needed to start-up a firm. Firms are accelerated using metrics and milestones, and the founders are connected with mentors and investors. All this

culminates with a Demo Day, an event where the startups are finally presented to a room of carefully selected investors (Mason, 2014; Haines, 2014).

In attempting to understand what accelerators really do, in one of the earliest research recorded on business accelerators, Christiansen (2009) highlighted reasons why individuals/groups choose to launch accelerator programmes. The author puts forth that other than gaining financial return, a top reason for them to launch accelerators was to create an 'ecosystem' around the accelerator which would enable long term employment for entrepreneurs. However, equally important was to gain a source of high quality 'deal flow' for personal angel investing, yet at the same time gaining the excitement of being involved in startups without any of the pain, and last but not the least, gaining local/regional influence as a business/community leader.

The need to highlight the novelty of accelerators is important, especially since accelerators are often referred to as incubators; however it is important to note that they support entrepreneurs in different ways (Isabelle, 2013). While the concept of the accelerator may have gained momentum only recently, the idea of business incubation has been around a long time, with the first ever incubator launched in 1959 (Kilcrease, 2012). The need to highlight this novelty of business acceleration is also vital since this is the first time any kind of 'incubation model' has been endorsed by policy for migration. It has been argued by Cohen (2013), that while philosophically incubators nurture ventures by shielding them from the environment to help 'give them room to grow', accelerators 'speed up market interactions' to help ventures 'adapt quickly and learn' (p 21). It has been further maintained by Cohen (ibid) that while acceptance onto an accelerator programme might not necessarily be a sign of a successful venture, it speeds up the cycle of the venture nonetheless, leading to either quicker growth or quicker failure. This is beneficial either way, as quicker failure can benefit

entrepreneurs by enabling them to grow different ventures, or move to higher value prospects. In doing so, and when considered with the fact that migration policy only offers time limited (1-3 year) entrepreneur visas (Gov.uk, 2018a,b), it may be argued that business accelerators become a great selective mechanism to ensure only migrant firms with high growth prospects stay behind in the country.

The emphasis of business accelerator programmes, that potentially have immense benefits for all the stakeholders involved, is further highlighted by literature emphasising the highly competitive nature of their programmes. Radojevich-Kelley and Hoffman (2012) argue that the extreme selection criteria that accelerators adopt ensure higher success rates of their firms. Kim and Wagman (2014), for example, show the significant role of business accelerators as venture capitalists who have done their due diligence in the selection process, as investment by the business accelerator affects the future valuation of the firm. This role of the accelerator has led the top accelerator programmes to have an acceptance rate of just a few per cent, while thousands of applicants normally compete for around 10 to 15 places per programme in the most well-known accelerators (ibid). Thus, greater awareness about the use of business accelerators is important, especially since they have the potential to greatly 'influence the supply and valuation of startups as an intermediary between entrepreneurs and investors' (ibid: 521).

This attempt at understanding their impact on entrepreneurial performance may still be developing, however, the following research stands out in adding to our understanding. Comparing startups that used accelerators versus startups that didn't, Hallen et al (2014) found that though leading accelerators help startups reach key milestones faster, not all accelerators are helpful, and may even contribute negatively to startup performance. However, Winston-Smith and Hannigan (2015) took the comparison

further to evaluate startups that used accelerators against those that gained finance through angel investment groups. They discovered that accelerated companies were more likely to either find their next funding round, be acquired, or conversely even fail sooner than those that were funded by angel groups. Mejia and Gopal (2017) have gone beyond this to specifically focus on the impact of the mentorship and investor ties that the accelerators offer on entrepreneurial performance, and argue that only experienced entrepreneurs should spend their time at the accelerator building investor ties, while inexperienced ones should be incentivised to seek mentoring instead.

2.2.2 Types of Accelerators

While the advent of the business acceleration model may be unique in itself, different accelerators function in different ways today. Recent research on business accelerators in the UK highlights that mentoring and direct funding, landmarks of the business accelerator model, are not offered by all, with 85 per cent of accelerators offering mentoring, and 61 per cent offering direct funding (Bone et al, 2017). In that vein, studies on business accelerators have also attempted to both understand and classify the different types of accelerators. While the 'original/standardised' model of acceleration emerged to ease VC funding decisions as mentioned earlier, this variety within the acceleration model has emerged, as accelerator aims and missions have been getting refined, and sources of accelerator funding have been getting diversified.

Kohler (2016) for instance, has provided keen insight into the design of corporate accelerators, a distinct form of acceleration which is a unique collaboration of innovation between large corporations and young startups. Kanbach and Stubner (2016) have gone even further to create a typology of corporate accelerators based on its locus

of opportunity, strategic logic, industry focus, equity involvement, and venture stage. This typology is representative of the fact that while some accelerators could be looking for new innovation for their corporations, others might be looking for the next billion dollar 'unicorn'. Other examples of this research include Malek et al (2014), who focus their research only on accelerators nurturing clean technology ventures, and in the process unearth that the business model of accelerators can vary based on the numbers of ventures they support and the amount of capital they are able to offer. They further illustrate that based on the business model, accelerators in that sector can be research and development enabled, technology enabled, market enabled, or network enabled.

However, Pauwels et al (2016: 8), more recently, have revealed the role of accelerators as serving three key purposes today, 'Identification of investment opportunities'; 'Matching customers with startups'; and 'Stimulation of startup activity and economic development'. The authors notably delineated the business accelerator as a distinctive incubation model while distinguishing between different types of accelerators based on shareholder objectives. They looked at thirteen accelerators all over Europe and identified different types of accelerators which serve different functions as intermediaries between diverse stakeholders. This typology has been highlighted in the table below.

Table 2.1 – A typology of business accelerators

Type of Accelerator	Function	
Ecosystem builder	A corporate accelerator aiming to create an	
	'ecosystem' of stakeholders and customers	
	around the parent company	
Deal flow maker	A liaison between investors and	
	entrepreneurs	
Welfare stimulator	An accelerator with government agencies	
	as the main stakeholder	

(Adapted from Pauwels et al, 2016)

The typology above is a valuable starting point in summarising the three distinct kinds of accelerators that mostly function today. By focussing on the accelerator's shareholders' objectives, i.e., whether their ultimate aim is 'building a company ecosystem as in the case of corporates; identifying interesting investment opportunities in the case of investors; or stimulating start-up activity and economic development in the case of government agencies' (p 21), creates a typology that further helps understand the reasoning behind the accelerator's programme package, strategic focus, target entrepreneurs, and eventual target audience. This typology also highlights the fact that the significance of business accelerators within the growth/development of a startup environment cannot be ignored, as the evolution of accelerators from a standardised VC model to accelerators which serve a larger purpose, indicate the value of accelerators to entities beyond the entrepreneur and the investor, i.e., the government. This typology has been further referred to in the next chapter to highlight the types of accelerators that have been endorsed by the UKVI/Home Office (UK Visas and Immigration of the Home Office).

2.2.3 Accelerators as Policy Tools

Research by Vanaelst et al (2018) has shown why government policies have supported accelerator programmes. The authors compare USA and EU-wide entrepreneurship policy. EU-wide entrepreneurship policy was assessed by studying cross-country programmes which were part of the Startup Europe initiative funded by the European Commission, and the authors note that while the US supports accelerators in certain geographical locations to specifically fill funding gaps (where VC and other institutionalised forms of capital aren't readily available), the EU's promotion of accelerators is 'part of a broader macro-economic plan... to answer to challenges brought by the gravest economic crisis in the last 50 years... (and thus) to support accelerators in creating flourishing entrepreneurial ecosystems' (p 137). Van Hove et al (2018) take this forward and look specifically at the UK, and stress on the need to distinguish between the different types of incubation models. They maintain that if policymakers are focussed on promoting accelerators for regional and employment development, 'ecosystem accelerators' do not have the business model to enable this on a short or even medium term time scale.

In another direction, Gonzales-Uribe and Leatherbee (2017) evaluate StartUp Chile, and discover that this form of government-endorsed entrepreneurship schooling leads to a significant increase in the amount of venture funds that entrepreneurs are able to raise later on. Furthermore, literature such as that by Fehder and Hochberg (2015) researching different areas in USA has shown that the benefits of the business accelerator move beyond the startups, to the overall ecosystem of a region, affecting even non-accelerated companies by attracting more VC and angel investors to the local region. In a similar vein Goswami et al (2018), have also evaluated the role

accelerators play in developing the regional ecosystem in India by highlighting the fact that when stakeholder co-operation and founder knowledge are increased, ecosystem 'additionality' is created, even if the sponsored firms are unsuccessful.

Thus, the competitive nature of accelerators, which not just provide funding and support, but also validate a business idea for further investment, potentially makes accelerators attractive to both entrepreneurs as well as policy makers. From a policy perspective, accelerators could also be considered as being vital institutional mediators between the government and the private sector (McDermott et al. 2009; Armanios et al. 2017), as the competitive nature of accelerators coupled with the accelerated success or failure rates, make accelerators ideal selection tools to ensure only the best talent is attracted and retained. This may be considered with the fact that start-up funding in general has become increasingly competitive, with firms needing to prove their value before gaining any source of institutionalised finance (as will be highlighted in the section on Tech Entrepreneurship below). Putting this into the British context, if also considered with the fact that business accelerators are put forth as seed competitions, i.e., competitive funding which enables easier access to Tier 1 Entrepreneur Visas only to those entrepreneurs able to secure said funding (Gov.uk, 2018a,b), the interplay of the high degree of selectiveness of accelerators and migration policy comes to light.

In summary, while the focus within accelerator literature has mostly been on creating a viable 'business' model for either investors, or local policy makers, the literature has tended to downplay how the entrepreneurs chart their entrepreneurship through business accelerators. But more specifically, it has failed to focus on migrant entrepreneur experiences, especially since the growing popularity of accelerators has spread to governments realising the benefits of accelerators as well. This thesis fills that gap.

2.3 Mixed Embeddedness of the Migrant Entrepreneur

As stated earlier, since business accelerators are to some extent a policy endorsed tool that opens up the British market for tech migrant entrepreneurs, this thesis situates business accelerators as part of the opportunity structure for migrant entrepreneurs operating in these high skilled markets. The previous section therefore reviewed literature surrounding business accelerators and put forth that it has failed to take into account the perspective of the entrepreneur.

In aiming to understand the experiences of high skilled migrant entrepreneurs through accelerators, it is important to review how migrant entrepreneurship has been researched in the literature. More specifically, in this section, the 'mixed embeddedness' theory (Kloosterman et al, 1999) has been unpacked, and further focus has been placed on high skilled migrant and transnational entrepreneurship, highlighting the interactional role of both structure and agency on the migrant entrepreneur within it.

2.3.1 The Mixed Embeddedness Theory and Access to Resources

The 'mixed embeddedness' theory (Kloosternman et al, 1999) is one the most comprehensive explanations of the causes and consequences of migrant entrepreneurship. It is a theory of a relational nature whereby it acknowledges the influences of structure but also underscores the role of agency within migrant entrepreneurship. The 'opportunity structure' for migrant entrepreneurship is central to the 'mixed embeddedness' theory (Kloosterman et al, 1999). Traditionally opportunity structures have been presented as a tool to explain 'school to work' transitions, but it

has become a vital part of understanding migrant entrepreneurship. As Kloosterman (2006: 4) states, 'opportunities occur in markets... to be able to start a particular business in a market where a demand seems to exist, an aspiring entrepreneur has to have the right kind of resources'. This focus on the opportunity structure has systematically evolved from previous literature which has over the years mostly focussed on ethnic and enclave economies; ethnic minority businesses; the constraints for ethnic enterprises and social networks; and social embeddedness in dealing with those constraints (Ma et al. 2013). This past focus on ethnicity within the literature has been to the extent that in understanding the causes and consequences of migrant entrepreneurship, the term ethnic and migrant have often been used interchangeably (Ilhan-Nas et al, 2011). Therefore, it must be stressed that the two are notably different, as the former is specifically a kind of entrepreneurship that is surrounded by a distinguishable ethnic community as well as rooted in a structure of community based co-ethnic social relations and their institutions (Zhou, 2004), while the latter, which purely considers entrepreneurship by individuals who have migrated, is the focus of this research.

While literature has emphasised certain traits such as hard work, frugal living and propensity towards self-employment being engrained in certain communities and ethnicities (e.g., Basu and Altinay, 2002; Volery, 2007), this entrepreneurship was once considered to be barely innovative, low value added, and only marginally profitable (Waldinger, 1996). Furthermore, this literature has frequently highlighted that this entrepreneurship has predominantly been undertaken out of necessity by the structurally disadvantaged, where the obstacles migrants face on arrival to a country, made entrepreneurship the 'price of immigration to be paid by the first generation' (Rajiman and Tienda, 2000: 701). However, despite changing research agendas, which

have occurred simultaneously with changing demographics of 'western' society (Vertovec, 2007, Sepulveda et al. 2011; Ram et al. 2013; Meissner and Vertovec, 2015), and which have noted the increase in the entrepreneurial potential of regions that are more culturally diverse, and which host more dynamic startups with respect to knowledge intensive activities (Rodríguez-Pose and Hardy 2015), research has consistently found entrepreneurship within this group to be a temporary survival strategy, with even most highly educated migrants preferring white collar employment (Jones et al, 2012). Jones et al (2014: 210) paints the picture of an entrepreneur with 'inadequate capabilities' in a hostile environment and argues, 'for all the fresh promise of their 'newness' (Vertovec 2007), the most recent wave of migrants is even more entrepreneurially disabled than its forerunners'. Nevertheless, 'migrant entrepreneurship is being invoked as response to an array of diverse challenges, from enhancing competitiveness to promoting integration' (Ram et al, 2017:14). Accordingly, a theoretical shift in the literature has been witnessed from studying the entrepreneur as a victim of 'structure' (Rajiman and Tienda, 2000) to further debates which highlight the 'mixed embeddedness' of the entrepreneur by putting the focus on both, entrepreneurial agency and institutions (Kloosterman et al, 1999).

According to Kloosterman et al (1999) and Kloosterman and Rath (2001), the aim of endorsing the theory of 'mixed embeddedness' was to move forward from old theories of social embeddedness. Thus, they focussed on the fact that the foundations of migrant entrepreneurship are based on more than the entrepreneur's social embeddedness in coethnic social networks. They emphasised that markets and the regulatory frameworks of the local context are also fundamental in understanding this field.

Kloosterman's (2010) refinement of 'mixed embeddedness' of the migrant entrepreneur has further stressed on the three levels of the entrepreneurial opportunities available to

migrants, i.e., the micro level of the entrepreneur and his resources, the meso level of the local opportunity structure and the macro level of the wider institutional framework. This is crucial, since Kloosterman and Rath (2001) point out that the likelihood of setting up a business is not just due to the supply side, i.e., the migrant entrepreneur's access to resources, but also due to the demand side, i.e., markets, which shape the 'opportunity structure' for the migrant entrepreneur in the host country. Thus the opportunity to operate a business only arises if the market for that product or service also exists, and the accessibility of these markets is dependent on the resources that the entrepreneur also has access to. However, since markets are also dependent on the geographical location (Ward, 1991) and the current political situation (Aldrich and Waldinger, 1990), the opportunity structure is also shaped by these factors. This institutional embeddedness of the opportunity structure however, as Kloosterman (2010: 37) argues, is 'very complex and relationships can be rather open and undetermined', and highly dependent on the 'varieties of capitalism' (Esping-Andersen, 1990; 1999). Kloosterman (2010: 37) as a result, does not come up with a comprehensive theoretical model to analyse this factor, but offers potential dimensions along which the institutional framework might affect the opportunity structure. These dimensions concern the level of 'provisions' offered by the state, the level of state intervention in the labour market; state intervention in the regulation of businesses; and the 'multifarious webs of relationship between the various economic actors' (p. 39).

Thus, due to the subjective complexity of the institutional framework, Kloosterman (ibid) puts the focus on accessibility of markets, which he argues is based on both the human capital of the entrepreneur and the 'growth potential' of the business, the combination of which generate four typical openings in the opportunity structure, i.e.,

vacancy chain openings; stagnating high threshold markets; post-industrial/low skilled and post-industrial/high skilled markets. This has been represented in the figure below.

Figure 2.1 -- Opportunity structure – markets split according to accessibility and growth potential

<growth potential=""></growth>			
台		Stagnating	Expanding
uman	High		Post Industrial/High Skilled
Capital>	Threshold		
al v	Low	Vacancy Chain Openings	Post Industrial/Low Skilled
	Threshold		

(Kloosterman, 2010: 30)

A migrant entrepreneur's access to resources is highlighted within this theory as a combination of agency and environment. And as Kloosterman (2010) also puts forth, the opportunity structure, i.e., accessibility of markets, is shaped by the individual's access to resources.

This focus on 'more than structure' has led to inter-related research by other academics with Nee and Sanders (2001) using a 'forms of capital' framework that goes beyond the social, and arguing that a migrant's integration into the labour market depends on a blend of the social, human and financial capital (as proposed by Bourdieu, 1986) at their disposal. They use this to evaluate migrant transitions into entrepreneurship and argue that depending on the combination of the capitals cited above, 'the process of incorporation of some immigrants is almost completely rooted in the social institutions of the ethnic community, whereas other immigrants depend almost entirely on the resources of their immediate family and the open economy', or upon themselves (p

393). Accordingly, research on migrant entrepreneurs' access to resources is often studied using Bourdieu's (1986) conceptual lens (e.g. Nowicka, 2013; Rodgers et al, 2018).

Bourdieu's (1986) theory of capital argues that capital is accrued labour. When adopted by agents, it allows them to assume 'social energy', which then determines their chances of success. Capital, Bourdieu (1983: 243) states, 'can present itself in three fundamental guises: as economic capital, which is immediately and directly convertible into money and may be institutionalised in the forms of property rights; as cultural capital, which is convertible under certain conditions into economic capital and may be institutionalised in the forms of educational qualifications; and as social capital, made up of social obligations, which is convertible in certain conditions into economic capital and may be institutionalised in the forms of a title of nobility'. The term human capital has been criticised by Bourdieu (1983; 1984) for its 'economism' (as cited in Nee and Sanders, 2001), but as Nee and Sanders (2001) argue, that since the term 'has the advantage of wider usage in the social sciences and standardized measurement' (p. 392), and since there is considerable overlap between the terms human capital and cultural capital, they therefore suggest using the term human-cultural capital instead.

While in policy circles, migrant labour is almost always theorised in terms of their education and skills, i.e., their human capital (Colett and Zuleeg, 2008; Constant and Zimmerman, 2005), in migrant entrepreneurship literature, migrant capital has often presented itself in the form of social capital which gets converted to financial and human capital. Accordingly, literature highlights this degree of embeddedness of migrant entrepreneurs into the wider world of business (e.g., Nee and Sanders, 2001; Basu and Altinay, 2002) and identifies the significance of ethnic resources, familial bonding, ethnic solidarity and ethnic markets on their firms (e.g. Min and Jaret, 1984;

Greene and Chagnati, 2003; Edwards and Ram, 2006; Andersson and Hammarstedt, 2015). For instance, the literature has specifically drawn attention to how social capital transformed into financial capital. Problems with gaining finance from institutionalised sources have been exacerbated due to their outsider status in the host country (Jones et al, 1994; Tseng, 1997), which thereby reduces the propensity of migrant entrepreneurs to access these forms of finance (Ram and Deakins, 1996) and thus have to rely on informal forms of financing through community based networks (e.g., Bates, 1997; Yoon, 1995; Yoo, 1998). However, while these experiences greatly vary between different ethnicities (Ram and Jones, 2008; Smallbone et al, 2003), literature has also highlighted the fact that more variations appear within ethnic minority groups, rather than between ethnic minority groups as a whole and 'whiteowned' firms (Smallbone et al, 2003). This literature however does have its exceptions. For example, Kushnirovich and Heilbrunn (2008) study migrant entrepreneurs in Israel and show that while the migrants rely on informal means of financing, they are less likely to finance their businesses via family and friends or rely on government grants. This they maintain is in strong contrast to native entrepreneurs.

Accordingly, Bourdieu's (1986) forms of capital has been and continues to be a useful analytical tool to highlight resource mobilisation by migrant entrepreneurs, as it is the interplay of different forms of capital rather than one form of capital alone that affects entrepreneurial activity (Nee and Sanders, 2001; Ram et al, 2008; Vershinina et al, 2011). It also, as Ram et al (2008: 429) state, 'injects a refreshing element of balance into an agenda previously over-preoccupied with the social capital vested in ethnic resources'. Accordingly, it is useful to study the ways business accelerators factor into the process.

To understand the ways in which the concept of 'forms of capital' can be used to further understand migrant entrepreneurship, several studies have explicitly combined the theoretical lens with that of 'mixed embeddedness' to 'look beyond social capital' (Vershinina et al, 2011: 101), as entrepreneurial outcomes are a by-product of two way interactions where structure is shaped by agency, and agency by structure. Ram et al (2008) therefore use this combination to evaluate the form of new migrant enterprise among Somalis in Leicester, and find that depending solely on 'social capital explanations' is inadequate. They therefore stress on the fact that to truly understand business dynamics, one needs to appreciate how the entrepreneurs 'mobilise different forms of capital within a given political, social and economic context' (p 427).

Vershinina et al (2011) take it forward to explain inter-ethnic variations between Polish migrant entrepreneurs. They find that using the forms of capital model helps highlight the variations as 'the composition, proportion or mix of capitals, changes with time spent in the UK' (p 113).

Similarly, Wang and Warn (2018) study three different groups of Chinese entrepreneurs in Australia, and further define the interaction between economic and policy conditions and personal resources. They emphasise the need to look beyond broad cultural factors while examining the paths chosen by migrant entrepreneurs and therefore recognise the significance of a dynamic interactional interpretation of the mixed embeddedness model. They argue that the factors affecting the mixed embeddedness of entrepreneurs are often considered to be deterministic. However, these need to be considered as interactive, as 'the pathway to a specific opportunity structure depends on a dynamic combination of environmental and individual factors rather than a shift in a single factor' (p 13). They show how migration policy in Australia, through its selectivity, chose migrants on a 'limited range of attributes'

without taking into account the 'complex interactions' that shape opportunity structures. They maintain that 'individual resources should be analysed as a complex bundle of well-specified resources rather than as a single, generic dimension' (p 13).

Similarly, this theory of mixed embeddedness, with its associated focus on not just access to resources but also institutions, has also been applied to a variety of other contexts to study different groups in different economies. For example, the theory has been used to uncover reasons for migrant entrepreneurship in 'newer' migrant towns, with Price and Chacko (2009) being able to go beyond enclave economics and shed light on labour market segmentation and the blocked mobility that Ethiopians and Bolivians face in new migrant towns such as Washington DC, and show how they forge political alliances to operate their businesses. In doing so, they highlight how groups that are not traditionally known for entrepreneurship still end up becoming entrepreneurs due to the opportunity structure of the local context.

The theory has also been used to study newer 'super-diverse' groups (Vertovec, 2007), such as Kloosterman et al's (2016) research on Ghanaian migrants in Netherlands, who find that despite the high levels of human capital that the group on the whole possess, still end up in the lower levels of the opportunity structure. The authors (ibid) argue that lack of recognition of their education and skills, as well as the closed off nature of their dense ethnic social ties, limit their opportunity structure to low skilled markets. Thus the nature of their capital serves as obstacles which prevent these highly skilled migrants from entering cultural-cognitive activities.

Moyo (2014) on the other hand uses the framework to study migrants in South Africa, a developing country context, and highlights how Black African migrant entrepreneurs are immersed in an array of social, political, economic and institutional frameworks.

The author finds the overwhelming role of the local opportunity structure in 'promoting' migrant entrepreneurship, i.e., a combination of the high degree of xenophobia, the role of the government in turning a blind eye towards said xenophobia, and the desperation of the migrants. She argues that while the 'South African government is not xenophobic, the enforcement of this principle is weak, such that those South African nationals and officials who choose to act xenophobically, do so with impunity' (p 265-266), thus pushing migrants into entrepreneurship. Thus the mixed embeddedness approach is put forth as a useful analytical tool as it 'views immigrant entrepreneurship as a social, even political, and not mechanical, assembly-line process involving rational economic actors on a homogenous economic terrain' (p 251). But Peters' (2002) research based on migrant entrepreneurship in Western Australia, finds substantial differences between and within ethnicities, underlining that while access to resources and the opportunity structure is important, the entrepreneur himself must not be overshadowed in the narrative.

In summary, what the mixed embeddedness theory highlights is that simply focussing on an entrepreneur's access to resources without considering the environment that he or she operates in, is inadequate in understanding this entrepreneurship. It is the interactional aspect of both structure and agency that is key to understanding migrant entrepreneurship. Furthermore, the resources that affect the growth potential of a migrant firm is more than just the entrepreneur's human or social capital. It is a full bundle of resources that the entrepreneur has access to, which is a result of the convertibility of the said human or social capital. However, what the studies listed above also highlight is that while high skilled migrants have been acknowledged within the mixed embeddedness framework, most studies that explicitly use this framework very rarely study this group, and instead study migrant entrepreneurs more as a group

borne out of structural disadvantages. Therefore, the next section reviews the embeddedness of the high skilled migrant entrepreneur more generally.

2.3.2 (Mixed) Embeddedness of the High Skilled Migrant Entrepreneur

High skilled migrant entrepreneurs are key to this thesis because while business accelerators are not intended to primarily be migration tools, they do provide an opportunity structure for this group of individuals.

Within the wider classifications of markets for different entrepreneurs, as highlighted in figure 2.1 above, Kloosterman (2010) identified an opportunity structure for new expanding post-industrial high skilled markets. It has been emphasised that the opportunities for the 'cognitive cultural activities' (Kloosterman, 2010; 2016; Scott, 2012) of these individuals who do not become entrepreneurs out of necessity, and have higher social and human capital, predominantly lie in the technology sector (Kloosterman, 2010). The necessary educational qualifications, i.e., this higher capital of these individuals is not just determined by the very nature of tech, but in a number of cases made mandatory by policy (ibid). Thus, the promotion of high skilled (tech specifically) entrepreneurship is seen with a turn towards selective migration policy worldwide, with countries competing to attract the world's 'best and brightest' (Batalova and Lowell, 2006). However, since a more recent turn towards political nationalism also shows migration policy even limiting high skilled migration (Cerna, 2016), the differentiation of skilled migrant workers and those who migrate as entrepreneurs (Saxenian, 2002; Ley, 2010), has advanced the claim that high skilled migration cannot just be theorised in terms of an idea about a new division of labour.

Instead it is the recognition that recruiting global talent enables economic growth, which in turn creates advanced economies (Findlay and Cranston, 2015).

This has led to a renewed interest in migrant entrepreneurship by high skilled migrants which has resulted in Kerr (2013: 5) drawing attention to three main strands of literature that focus on high-tech migrant entrepreneurship, specifically in the US. The first strand considers 'descriptive traits' about immigration, innovation, and entrepreneurship. Here, the debate focuses on the quantity versus quality of innovation by migrants. The second body of work he highlights, considers the 'aggregate consequences of higher immigration to the United States for innovation'. Here, he emphasises the debate which centres on the employment consequences of natives due to higher immigration to the country, and finally looks at how high skilled migrants 'shape economic exchanges with their home countries'. Within this he argues that this final body of work has scope for further development as the focus has almost always been from a host-country perspective.

Accordingly, using three multivariate analyses, Hart and Acs (2011), compared high skilled technology firms led by natives and migrants in the US, and demonstrated that the impact (in terms of job creation) of migrant firms is perhaps even more significant than that of native born entrepreneurs in the US. This is due to the fact that migrant entrepreneurs identify different opportunities, and more often than not, see potential markets and supply chain relationships in their home country that are usually not visible to those entrepreneurs without this international background. Hart and Acs (ibid) further put forth that migrant entrepreneurs are also bigger risk takers in business as they have less to lose, and that the impact of migrant businesses on the economy tend to be greater than native businesses.

However, wider research surrounding high skilled migrant entrepreneurs or migrant inventors is often considered under the all-encompassing term of 'innovation diffusion' and also includes high skilled migrants in MNEs in their work. Moreover, this strand of research on innovation diffusion has also researched ethnic solidarity in high-tech firms using surname analysis which only indicates an individual's ethnic identity (albeit with little reliability) rather than their migration status (e.g. Agrawal et al, 2008; Breschi et al, 2014). Nevertheless, ethnic solidarity was found to be largely prevalent even in high-tech firms today (Agrawal et al, 2008; Cucculelli and Morettini, 2012; Saxenian, 2002; Shih, 2006). For instance, Shih (2006)'s comparative research in the US showed how Asian migrants use their networks to start their own business or job hop onto a co-ethnic firm, and then use their networking to job hop into bigger and better companies.

Agrawal et al (2008) in a similar vein found that probability of cross company citation in the high-tech sector depended not only on physical distance between the firms, but also on co-ethnic ties. All the same, they highlight that the unique process of high skilled migrant entrepreneurship is essentially different from traditional ethnic or migrant enterprises with transnational ties often being more developed and traditionally less dependent on cultural networks. However, Saxenian (2002) illustrates how Silicon Valley's Asian migrant entrepreneurs depend on local professional and social networks to marshal finance, information, know-how and even high skilled talent to set up their tech firms, as these networks are truly transnational with cross-Pacific relationships. Taking that forward, Miguelez (2016) demonstrates how migrant technology inventors utilise diaspora networks, leading to the internationalisation of inventive activity between developed and developing nations. And Brzozowski et al (2017), for instance show how migrant entrepreneurs operating in the ICT sector in Italy are extremely

bound by home country ties, but they also argue that this reduces the longer they reside in the host country. This strong ethnic solidarity though, is not without its limitations in the tech world. As Almeida et al (2015), using the National Bureau of Economic Research's database of patents, surveyed Indian inventors in the US semi-conductor industry, found that while collaborating with members of the same ethnic community is useful and positively affects innovativeness, this is 'subject to diminishing returns' (p 15). At the same time, this knowledge sharing can then lead to over-embeddedness and an over-reliance on ethnic community knowledge, which in turn can negatively affect the quality of venture innovativeness.

In summary, while the rhetoric appears to have changed from the 'unfortunate' migrant entrepreneur bound by circumstances, to the 'new' migrant entrepreneur with a different profile, eventually leading to the 'high skilled, innovative, and highly attractive' entrepreneur, social capital has been a major part of these evaluations with attempts accordingly being made to highlight the social embeddedness of the entrepreneurs. However, this literature also showed that this embeddedness may be transnational with tech entrepreneurs having diasporic connections all over the world. Therefore, the next section looks more deeply at the embeddedness of transnational entrepreneurs.

2.3.3 (Mixed) Embeddedness of the Transnational Migrant Entrepreneur

Within the wider debates on migrant entrepreneurship, a lot of interest has been placed on transnational entrepreneurs, with Portes et al (1999) stressing on the promise of this emergent field. Transnationalism 'broadly refers to multiple ties and interactions linking people or institutions across the borders of nation-states' (Vertocvec, 1999:

447). The term 'transnational' recognises that the reality of a migrant's life spans different places or 'geographical spaces' (Pries, 1999:3; Glorius and Friedrich, 2006:164). This 'social process in which migrants establish social fields that cross geographic, cultural, and political borders', is an acknowledgement that migrants 'develop and maintain multiple relations – familial, economic, social, organizational, religious, and political – that span borders' and operate 'within a field of social relations (i.e., transnational social spaces) that links together their country of origin and their country or countries of settlement' (Glick-Schiller et al, 1992:1).

The field of transnational entrepreneurship is 'composed of a growing number of persons who live dual lives: speak two languages, have homes in two countries, and make a living through continuous regular contact across national borders' (Portes et al, 1999: 217). Portes et al (ibid) thus reflected on the different contradictory claims talking about the 'fluidity and diversity' (p 218) of these transnational exchanges. While some scholars have noted transnational entrepreneurs to be a 'new and still exceptional breed' (p 218), others have remarked that transnationalism is as old as labour migration itself. Transnational entrepreneurship, as Drori et al (2009) put it, 'consists of individual entrepreneurs who leverage opportunities that arise from their dual fields and networks, optimizing resources where they may be most effective' (p 1003). Transnational entrepreneurs overcome substantial barriers in navigating multiple institutional fields. They do not start out as international firms but they leverage opportunities that arise from dual home country networks (ibid).

Transnational entrepreneurship has been studied in many contexts. First, these contexts usually consider entrepreneurs as existing within a home-host duality. For example, from Indian transnational entrepreneurs in the diamond district of Antwerp (Henn, 2010, 2013) to Latin American entrepreneurs in USA (Portes et al, 2002). According to

Portes et al (2002), instead of 'focusing on traditional concerns about origins of immigrants and their adaptation to receiving societies, this emerging perspective concentrates on the continuing relations between immigrants and their places of origin and how this back-and-forth traffic builds complex social fields that straddle national borders' (p 279). This complexity is further highlighted by Rodgers et al (2018) who show how migrant entrepreneurs use the symbolic capital (Bourdieu, 1986) that they achieve operating within transnational social spaces to subsequently enhance their social capital which they then convert to economic value. This symbolic capital, they illustrate, may be achieved from the co-ethnic community, but may also be achieved from their 'co-migrant experiences' (p 14), or even from the wider host community. Moreover, Zhou and Lee (2013) show that transnational entrepreneurship has instead strengthened the economic base of Chinese migrants in USA which has in turn strengthened their localisation into the host society. Gryszmala-Kazlowska and Phillimore (2018) therefore put forth that old understandings of integration do not enable a true appreciation of how migrants adapt whilst operating in transnational social fields.

Secondly, while the transnational entrepreneurship literature does not overtly make this connection, a growing body of literature on transnationalism acknowledges the serial migration (Ossman, 1994) of individuals, which highlights a generational change towards massive middle class mobility (Favell et al, 2006). This has seen further growth after the economic crisis of 2007-2009, when the number of migrants to the OECD with tertiary education increased over 70 per cent (Arslan et al, 2014). For instance, this definition of transnationality of individuals is seen in research by Liebelt (2008), who highlights serial migration from the perspective of Filipino domestic workers whose transnationality sees them moving from one country to another,

continuously migrating further, moving 'on and on, rather than back and forth' between home and host country (p 568).

This body of literature on serial migration is in line with other literature that highlights why individuals migrate in the first place. The literature focuses on factors such as physical and cultural distance (Molle and van Mourik, 1989; Geis et al, 2011; Wang et al 2016), probability of finding employment (albeit debated in the migration literature; Harris and Todaro, 1970; Katselis and Glytsos, 1989; Lundborg, 1991), levels of individuals' networks (Erikkson, 1989; Faini and Venturini, 1994, 2010; Neto and Mullet, 1998; Maani, 2016) role of the family (Smith, 1985; Ryan, 2004), and common language (Melitz and Toubal, 2014; Nowotny, 2015), with literature pointing to individuals inherently choosing to move to destinations where same ethnic groups have gone earlier (Epstein, 2008). However, literature also points to institutional variables such as migration policy (Belot and Hatton, 2012), welfare systems (Borjas, 1999; Giulietti and Wahba, 2013), tax policies (Liebig and Sousa-Poza, 2004; Nowtony, 2015), as well as general conditions such as urban amenities (Scott, 2010; Levkovich and Rouwendal, 2014).

Thus, within this, a growing body of literature centres on the newer patterns of 'footloose' migrants (Vertovec, 2009; Engbersen et al, 2013) where individuals live their lives across borders, and have the same level of ties in all the countries they are in. The literature finds that these individuals could either be 'nomads' who are highly mobile, cosmopolitan in outlook, and move depending on work opportunities (Duvell and Vogel, 2006), or they may be young, ambitious individuals who are unpredictable and intentionally keep their options open (Eade et al, 2006). With changing trends in the overall mobility of individuals, and with questions surrounding their level of integration into the host country a cause for concern (Ostergaard-Nielson, 2011;

Mugge, 2016), this literature may therefore be considered in tandem with literature on migrant entrepreneurs.

Third, despite the overt connection not being made to serial migration in the literature, newer studies on transnational entrepreneurship have nonetheless re-examined the very definition of transnationalism. Brzozowski et al (2017) stress on the need for research to differentiate between transnational entrepreneurship which occurs between a homehost duality, and that which occurs across multiple locations. Correspondingly, Bagwell (2014) has interpreted transnational entrepreneurship as going beyond the simple definition of the entrepreneur who travels between home and host country, to the degree to which entrepreneurs lean on support from their transnational networks. Accordingly, Bagwell (ibid) in her research on Vietnamese businesses in the UK, found that even micro organisations were involved in transnational activity which made use of tangible and intangible forms of capital, either to meet family obligations or for a competitive edge. Some firms had business links with up to five different nodes of the diaspora. This is also similar to research by Wahlbeck (2013) who studied Turkish migrant entrepreneurs in Finland and found that they use their transnational social ties to establish their businesses in a market, which is largely closed to migrants. He argues that to simply possess this transnational capital is not enough but that it has to be in the right 'currency'. He contends that, since firms are always tied to specific places and contexts, the social capital has to be transferrable from one country to another. Thus, it is put forth that there is a need to study the embeddedness of entrepreneurs in both a local and transnational context. Similarly, the findings by Bagwell (2014) above led her to later call for a re-evaluation of the mixed embeddedness theory (Bagwell, 2018). She emphasised the 'need for a further transnational layer of embeddedness, so as to enable

it to more accurately account for migrant enterprise today and in particular, to reflect the global influences on business development' (p 105).

In summary, while the mixed embeddedness theory is a unique analytical tool that helps move beyond the 'structurist' or 'culturalist' approaches of previous migrant entrepreneurship/ migration literature, the need for adding a transnational layer to the mixed embeddedness theory, as Bagwell (2018) puts forth, is an important contribution to the academic literature, as literature on mixed embeddedness is evaluated almost always from a national perspective. It does not acknowledge that migrant entrepreneurs may be able to 'leverage opportunities that arise from their dual fields and networks, optimizing resources where they may be most effective' (Drori et al, 2009: 1003). In doing so, it falls short of appreciating the value of migrant entrepreneurs' transnational social capital and its convertibility into that of economic value. And thus, it fails to recognise that their opportunity structure is not always limited to a single country.

2.4 Tech Entrepreneurship and the Entrepreneurial Ecosystem

While the 'mixed embeddedness' theory can account for why and how migrant enterprises come into existence, it lacks specificity about high skilled groups of entrepreneurs. Although the acknowledgement does exist that high skilled groups operate differently, especially if they operate in expanding markets such as those within the cultural-cognitive industries (Kloosterman, 2010), but when focusing specifically on tech, it is not enough to understand the interplay of the different actors operating within this sector. This is because the opportunity structure for tech entrepreneurship is reliant on more nuanced resources and institutions. Therefore, when considering

migrant tech entrepreneurship, the 'entrepreneurial ecosystem' (Isenberg, 2010) approach widely used in studies of high-tech entrepreneurship might offer interesting insights. However, at the onset it must be stressed that the two theories are philosophically different, with the ecosystem theory being more normative or prescriptive, i.e., a policy centred, outcome oriented, 'theory' which studies the institutions and highlights what a good entrepreneurial environment should look like to promote innovation (Stam, 2015), rather than an analytical theory that studies the entrepreneur and his/her interaction with the surrounding institutions (Kloosterman et al, 1999).

2.4.1 The Ecosystem Concept

'Ecosystems are the union of localized cultural outlooks, social networks, investment capital, universities, and active economic policies that create environments supportive of innovation-based ventures' (Spigel, 2017: 49). Literature on entrepreneurial ecosystems draws on interrelated work on social capital, networks, clusters, innovation systems and economic geography. Although these various bodies of literature are theoretically, methodologically, and philosophically different, the combined literature recognises the environment that entrepreneurs exist in and therefore shares the common belief that entrepreneurs do not exist in a vacuum (ibid).

The term 'ecosystem' is valuable in technology entrepreneurship studies, as the key pillars of an entrepreneurial ecosystem together make up a combination of 'market resources' that add substantial value to an entrepreneurial venture. This ecosystem view of entrepreneurship, as first proposed by Moore (1993) and made popular by Isenberg (2010) on 'How to Start an Entrepreneurial Revolution', acknowledges both the macro

as well as micro influencers on entrepreneurship (Goswami et al, 2018). Mason and Brown (2014: 5) define an entrepreneurial ecosystem as a group of 'interconnected entrepreneurial actors (both potential and existing), entrepreneurial organizations (e.g., firms, venture capitalists, business angels, banks), institutions (e.g., universities, public sector agencies, financial bodies) and entrepreneurial processes (e.g., the business birth rate, numbers of high growth firms, levels of 'blockbuster entrepreneurship,' number of serial entrepreneurs, degree of sell-out mentality within firms and levels of entrepreneurial ambition) which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment'.

Similarly, the focus on 'innovation ecosystems' relies on compatible actors, resources and institutions, and has thus emerged in tandem with that of 'entrepreneurial ecosystems'. Fostering innovation in particular has become a 'mandated task' for most governments, and 'innovation ecosystems' are 'the most prominent type of environment being built' to do so (Rabelo and Bernus, 2015: 2250). Jackson (2011) has described the innovation ecosystem as 'the complex relationships that are formed between actors or entities whose functional goal is to enable technology development and innovation', with Rabelo and Bernus (2015: 2252) listing the elements that comprise an ecosystem as being made up of actors, capital, infrastructure, regulations, knowledge, ideas, culture and interface, i.e., '(a channel) to interact with the other actors, including customers, stakeholders and civil society'.

While there is lack of consensus on the different aspects that make up a 'successful' ecosystem (Alvedalen and Boschma, 2017), the key aspects have been highlighted in the table below. These have been labelled as the key 'pillars' of a 'successful' entrepreneurial ecosystem (WEF, 2013).

Table 2.2 - Key pillars of an entrepreneurial ecosystem

Key Pillars	Description
Accessible markets	Other companies and customers, both domestic and foreign
Funding and finance	Friends and family, venture capital, angel investment, private
	equity, access to debt
Support systems	Mentorship, entrepreneurial networks
Access to human	Management and technical talent, migrant workforce,
capital and workforce	entrepreneurial company experience
Regulatory framework	Business friendly legislation, access to basic infrastructure,
and infrastructure	telecommunication and transport
Education and training	Availability of workforce with pre-university and university
	education, and entrepreneur specific training
Cultural support	'Toleration' of entrepreneurship
Major universities as	Promoting a culture of entrepreneurship, offering graduates
catalysts	for new companies, and helping with idea formation of new
	companies

(Adapted from; WEF, 2013: 6-7)

Within all of this, the entrepreneur is central to this theory. Stam (2015) highlights the fact that the entrepreneur keeps the ecosystem healthy, and this centrality of the agency of the entrepreneur has been best articulated by Autio (2016: 20), who argues that entrepreneurial ecosystems are essentially resource allocation systems which promote innovation. He states:

'Entrepreneurial ecosystems' resource allocation dynamic is brought to life by trial-and error opportunity pursuit by enterprising individuals and venture teams. Entrepreneurial action is triggered by opportunity perception: entrepreneurs perceive opportunities for value creation and capture. However, there is no way to tell, *ex ante*, whether the opportunity is real or not: the only way to validate a perceived opportunity is to mobilise resources for its pursuit.'

However, Oh et al (2016), in a scathing article on the 'ecosystem' concept, argue that while there is no singular definition of what constitutes an innovation ecosystem, the term keeps getting mentioned in several contexts, from corporate innovation ecosystems to regional, national, digital, city-based, university-based and high-tech SME centred innovation ecosystems. They further inform that most university

initiatives focus purely on the 'entrepreneurial' subset of the innovation ecosystem and call it the entrepreneurial ecosystem. As Autio (2016: 20) clarifies, 'an innovation ecosystem is not the same as an entrepreneurial ecosystem – although the two frequently overlap. Whereas digitalisation directly drives innovation ecosystems, it drives entrepreneurial ecosystems only indirectly through its enabling on Lean Startup, New Venture Accelerator movement, and associated cultural change'. Oh et al (2016) further report that some incubators and accelerators claim that the services they offer combine to create a 'hyper-local' innovation ecosystem, which Cohen (2017) describes as creating more opportunities to bolster research, education and service missions, all within an extremely convenient distance.

This contention over the overarching term has led to further claims that it lacks a clear analytical framework, and that it also remains unclear to the extent to which institutions affect the structure of an entrepreneurial ecosystem (Alvedalen and Boschma, 2017). Furthermore, Isenberg (2016) has argued that analysing the ecosystem solely from the entrepreneur's perspective, and therefore by default valuing it over investors' perceptions is 'tantamount to viewing the star (of a theatrical production) as the play (in itself), whereas the latter would not exist without a larger infrastructure' (p569). However what is key here is that understanding entrepreneurial experiences from the ecosystem perspective provides a helpful guide for public policy, as it recognises that the role of the government is central to its success (Stam, 2015).

In summary, despite the nascency of the research, the popularity of the ecosystem may be attributed to its focus on access to resources and its focus on location. However, it must be stressed again that this theory is not analytical and does not highlight how entrepreneurs act but is instead prescriptive and policy oriented. Even though the entrepreneur is central to the theory of the entrepreneurial ecosystem, it essentially

studies the institutions surrounding the entrepreneur. It also does not really discuss the interdependencies between any of the other actors within the ecosystem (Spigel, 2017). Thus, keeping that in mind, the following sections will discuss literature on tech resources as well as tech clusters more generally, which despite the literature's theoretical incompatibility with each other, are key to understanding tech entrepreneurship.

2.4.2 Access to Resources

Access to resources is central to the notion of an entrepreneurial ecosystem. As mentioned earlier, Autio (2016: 20) argues that 'entrepreneurial ecosystems, for their part, are essentially resource allocation systems', which are 'brought to life by trial-and error opportunity pursuit by enterprising individuals'. Similarly, some of the core 'pillars' of an entrepreneurial ecosystem as put forth by Isenberg (2010) and WEF (2013), highlight the value of access to human capital, funding and finance, support systems, as well as education and training. However, within tech entrepreneurship literature, this is often at the firm or even regional level, rather than the individual level.

The value of the entrepreneur's human capital in high-tech firms is obvious with literature clearly indicating that firms with higher levels of human capital are more likely to identify opportunities and less likely to fail (e.g., Colombo and Grilli, 2010; Marvel et al, 2016). However, literature has also pointed to the value of access to 'hired' human capital, be it in the form of technical or complementary managerial skills (Andries and Czarnitzki, 2014) with Siepel et al (2017) stressing on its value on a firm's long-term success.

The value of social capital/support systems in the tech sector has most often been shown in how entrepreneurs and firms leverage social capital for knowledge acquisition (Presutti et al, 2007; Huang et al, 2012; Wu et al, 2008; Yli-Renko et al, 2001). For instance, Wu et al (2008) analysed Taiwanese high-tech firms in the growth phase of their life cycle and found that the willingness of support firms to cooperate with them was actually dependent on their trust in the high-tech entrepreneur, i.e., the entrepreneur's symbolic capital, rather than the level of resources that the entrepreneurs had access to.

Anderson et al (2007) therefore contend that the conceptualisation of social capital is ambiguous, with the definition becoming even more unclear with high-tech firms. They put forth that social capital is a 'social relational artefact' where investment into social resources is made with the clear expectation of direct or indirect returns at some point in the future. This pool of goodwill cannot be owned but depends on interdependency, sociability, trust, and associability of social networks, and should essentially be viewed as a 'revolving mutual fund of traded and untraded interdependencies' (p 265).

Further support for the value of access to social resources may be evidenced by literature on relational learning. Through the experiences of business leaders on an executive development programme, Leitch et al (2013) explore how entrepreneurship development is a social process and is a result of relational learning. Furthermore, Pret et al (2016) show how entrepreneurs in the creative industries value the benefits of sharing ideas with each other and advance the industry as a whole rather than fearing loss of sales or intellectual property.

Access to mentorship and support systems have also been shown to have links to 'reputational capital' (Hayton, 2005). However, as research reveals, when ventures are

young, reputational capital is hard to come by. According to Carter and Crowther (2000: 24), 'professional legitimacy' that membership to professional networking bodies accord, increases the 'symbolic/reputational capital' of entrepreneurs, which then affords them the benefit of representing themselves as 'impartial purveyors of truth' (as cited in Stringfellow and Shaw, 2009: 140). Other research by Polidoro (2013) and Drover et al (2017) draw attention to the value of third party certifications such as those by established business influencers which are used by outsiders to judge the quality of an entrepreneur and his/her firm, thereby increasing its 'reputational capital', with Rindova et al (2005) underlining the economic value of reputation being influenced by the extent to which the firm is widely recognised in the field.

This leads to the understanding of the economics of the tech sector, especially since the consensus view seems to be that high-technology firms fail due to a lack of financial resources (Bruton and Rubanik, 2002). Literature highlights that investment from external sources is obtained at different stages of a firm's growth, 'from seed to growth, from series A to C' (Startupexplore, 2016). However, prior to the seed stage, pre-seed capital comes from self-financing, family, friends, and business angels. This is that initial money needed for the absolute first stage of an entrepreneurial venture, when the entrepreneur needs time to work out the initial product idea, and perhaps test their prototype (Graham, 2005). This is also often the same stage where business accelerators come into the picture.

Extensive literature has focussed on the role of personal capital (savings, for example), as playing a role in financing one's venture (e.g. Cassar, 2004; Carter and Van Auken, 2007; Conti et al, 2013). Conti et al (2013) stress on the value of social capital, i.e., personal, friends as well as family funds to gain business angel funding. However, the industry around venture capital and the newer angel forms of finance exist mainly due

to the limited funds that are available to entrepreneurs from personal networks, and the high risks involved in gaining debt related financial resources from other institutions (Wright and Robbie, 1998). Gaining this kind of funding is highly competitive, with entrepreneurial teams with higher levels of human capital, i.e., skills, education and technical knowledge exhibiting higher chances of success (Baum and Silvermann, 2004; Dimov and Shepherd, 2005), and Venture Capital (VC) investors often being reluctant to invest in early stage businesses that have not yet proven themselves (MacMillan et al, 1985).

Venture capitalism works on a broad theoretical model that incorporates raising a large amount of capital from various institutional investors, assembling experienced partners, extensively evaluating each deal, and employing strong governance to protect the investment. Venture capitalists therefore look for entrepreneurs with traits such as being able to react well to risk, capable of long term intense effort, thorough in their knowledge of the market (MacMillan et al, 1985), and thus their overall 'preparedness' (Chen et al, 2009) and entrepreneurial and product passion (Warnick et al, 2018).

The relationship between the VC and the entrepreneur has led to a wide range of research which has focussed on the potential that the VC has on being more than just a financial resource (e.g., Gorman and Sahlman, 1989; Hellmann and Puri, 2002; Huang and Knight, 2017). Thus, Nouira et al (2005) look at this demand side of the chain, and study the entrepreneur's perception of how important different kinds of early stage financial resource options really are. They note that during early stages, the entrepreneur's views of different financial actors are influenced by the need to grow, the desire to orient towards the international market, and the initial lack of customers. On a similar note, Sapienza and De Clercq (2000) highlight the fact that the unstable and difficult conditions under which venture capitalists and entrepreneurs function, is

extreme. Likewise, they show that the difference in goals and perspectives of venture capitalists and entrepreneurs creates an environment in which conflict is common. Sapienza et al (1994) have put forth three roles that define this relationship. They claim venture capitalists take on a strategic role as a sounding board for entrepreneurs, an operational role to help facilitate networking with external resource providers, as well as a personal role as mentors and confidantes. However, the authors find that venture capitalists see their operational role as having more value than the others, as that shows their active interest in the future of the entrepreneur's company. Thus the VC as both a source of funding as well as a support system intertwines within the entrepreneurial ecosystem. Despite these varied goals, Florida and Kenney (1988) have also mentioned the possibilities of conflict within the entrepreneur-venture capitalist relationship, and have argued that this is due to the differences in the ultimate aims of the two. While VCs look solely at the financial gains of their relationship with entrepreneurs, entrepreneurs tend to look at profit more as a long term prospect, while focussing more on security, self-satisfaction, and personal achievement from their venture.

2.4.3 Tech Clusters

The emphasis of entrepreneurial ecosystems encouraging innovation has mostly been on a regional level. Within the UK, this is represented by the creation of Tech City¹, a technology cluster in Shoreditch, East London, backed by the government with the aim

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¹Tech City UK, the project that supports Tech City 'delivers programmes and initiatives to accelerate the growth of digital businesses across the UK at all stages of their development'. https://www.techcityuk.com/

of making the UK the 'technology centre of Europe'². This is representative of a growth of tech clusters worldwide, with substantial research studying this formation.

As stated above, a key feature of the entrepreneurial ecosystem is that it focuses on a specific geographical location, and is almost always local in character. Furthermore, with most of the business accelerators endorsed by the British government being situated in London (as will be highlighted in the next chapter), the literature on tech clusters cannot be ignored. However, it must also be stressed that while an entrepreneurial ecosystem tends to develop around a tech cluster, the one key difference between existing literature on entrepreneurial ecosystems vs. that of clusters, learning districts, innovation systems, and industrial districts, is that the latter focus on the business while the former on the entrepreneur (Stam, 2015).

The advent of major technological successes coming out of areas such as Silicon Valley, Austin, Texas, and Route 128 in Boston has led to research on the entrepreneurial potential of these clusters, with a considerable focus initially on USA, and now the world over (Ostergaard and Park, 2015). Literature on specific regions such as by Saxenian (1994) on Silicon Valley, Feldman (2001) on Washington DC and Aoyama (2009) on Kyoto has established how 'interlocking historically produced, place-based elements created the conditions for long-term entrepreneurial success' (Stam and Spigel, 2016: 3). Todtling (1994), for example, looks specifically at the Greater Boston area as a complete region of high-technology networks and emphasises the importance of local links to universities, research institutions, venture capitalists and specialised suppliers and customers. For this need for involvement from very specific knowledge intensive institutions, only a few regions in a country grow into

² Chancellor George Osborne at the inauguration of Google Campus in Tech City in 2012 -- https://www.gov.uk/government/speeches/speech-by-the-chancellor-of-the-exchequer-rt-hon-george-osborne-mp-google-campus-launch

high-technology networks, but they are nevertheless vital for the survival of very early stage firms.

Tech clusters around the world have been documented as starting in capital and global cities because they tend to provide access to diverse specialised labour markets and 'publically funded cultural institutions... through which soft innovations are circulated' (Chapain et al, 2010, in Foord, 2013: 52). While the tech entrepreneurship literature does not explicitly make this parallel, it must be noted that this development of global (Sassen, 1991) or world cities (Friedmann and Wolff, 1982; Friedmann, 1986) has been attributed to the mobility of the high skilled who are able to move to the most profitable and/or convenient locations due to the geographically flexible nature of tech (Brixy et al, 2013; Da Rocha et al, 2017). These world cities are seen to 'play a key role in the new international division of labour, acting as command and control centres for transnational and multinational corporations and financial capital and providing a crucial infrastructure of corporate business services' (Hamnett, 1994: 401). Therefore, these cities end up being centres of innovation as well as markets for the innovation produced (Sassen, 1991), but more importantly, 'the dynamism of the world city economy results chiefly from the growth of a primary cluster of high level business services which employ a large number of professionals – the transnational elite' (Friedmann and Wolff, 1982: 320, in Hamnett, 1994: 403).

Thus, despite the focus of tech clustering often being at the firm level, the people within it have not been ignored. Clustering has also been documented as supporting relational learning as 'knowledge is held by individuals, and not firms' (Foord, 2013: 52). And the emergence of incubators as co-working spaces within these clusters, not only cuts costs, but also works as a great support system for entrepreneurs (Pratt, 2008). This has also been examined in emerging economies like Thailand, with Sansom and

Jaroenwanit (2016) putting forth that firms mutually benefit from each other's resources in industry clusters.

This, in no small way also has to do with the level of 'cultural support' entrepreneurship receives in a country, with a wider tolerance for risk taking and contrarian thinking being more conducive to the development of an innovative region (Isenberg, 2014). This acknowledgement of creativity now allows for an understanding of the need for entrepreneurial teams to work virtually, a work style which values creativity and productivity over 'presenteeism' (Johns and Gratton, 2013:8S).

Finally, going back to the UK once more, tech clustering emerged in the aftermath of the 2008 economic crisis (Foord, 2013; Nathan and Vandore, 2014; Nemkova, 2017). It has been argued that this emergence of a creative digital cluster in East London is in part due to the fact that creative individuals who are able to manage risks are 'exposed to new ideas, tastes and values as well as different cultures, knowledge and skills' which explains this 'cosmopolitan assemblage' (Foord, 2013: 52). Thus, as mentioned above, the emergence of a tech cluster is also in part dependant on the diversity of a region, and thus, a region with access to migrant talent, and with a favourable migration policy. With the UK's moves towards an overhaul of migration policy in favour of tech, and the development of the UK as the centre of technology (as also represented by David Cameron's speech at the inauguration of Tech City, Gov.uk, 2010), makes the study of how the entrepreneurs navigate these policy changes and negotiate their experiences utilising these policy promoted business accelerators, a study of value.

2.5 Analytical Framework

This thesis draws on all the aforementioned theoretical sources to propose that both structure and agency are complementary in shaping the opportunity structure for high skilled migrant entrepreneurship in the tech sector. Thus, the analytical framework is primarily based on the 'mixed embeddedness' framework as put forth by Kloosterman et al (1999), but also utilises the theory of the 'entrepreneurial ecosystem' (Isenberg, 2010).

Despite the fact that migrant entrepreneurship and tech entrepreneurship as well as literature on migrant and tech entrepreneurship have generally developed differently, the mixed embeddedness and ecosystem theories are connected in a number of ways. While it has been acknowledged that the ecosystem literature is philosophically and theoretically different from that of 'mixed embeddedness', this should not overshadow its similarities and how they complement each other in understanding migrant tech entrepreneurship. Moreover, while the mixed embeddedness theory provides a framework that can analyse a variety of possible empirical contexts, the focus within practitioner circles on encouraging entrepreneurship through policy tools has mostly chosen to debate the specific institutional factors supporting entrepreneurship under the more popular entrepreneurial ecosystem framework. It is also this literature which highlights the need for specific mechanisms to encourage innovation, and it is here, where a practical discussion of business accelerators may also be found. Thus, as the mixed embeddedness lacks specificity about the resources and institutions that migrant entrepreneurs in tech have access to, and are affected by, the entrepreneurial ecosystem literature provides insight to the functioning of the tech sector more generally as well as the factors affecting and supporting innovation and the creation of startups.

Furthermore, while the popularity of the term entrepreneurial ecosystem amongst practitioners and policymakers leads to varying interpretations of what defines its 'success' (Oh et al, 2016), ignoring the terminology in the thesis is as good as ignoring its very existence.

The ecosystem literature talks specifically about the need for a supportive community of financiers, mentors, companies and events that help foster startups (Feld, 2012). It also highlights the need for governments to understand the unique processes of startups and put in place appropriate policies (ibid). Accordingly, the ecosystems literature also needs to be referred to since it enables a sound understanding of this policy promoted accelerator-led entrepreneurship as there is a heavy focus on business accelerators in the entrepreneurship ecosystem literature (e.g. Fehder and Hochberg, 2015; Goswami et al, 2018; Vanaelst et al, 2018; Van Hove et al, 2018).

The ways the two theories are therefore interconnected have been elaborated on below.

First, the concept of the ecosystem heavily relies on market forces as being an influential factor in supporting innovation. While Oh et al (2016) mention this as a flaw of the ecosystem concept, when considering innovation with respect to migrants, the influence of market forces simply cannot be denied. The accessibility of markets is key when studying migrant entrepreneurship as market conditions are shaped by external factors such as changing migration policies (Kloosterman et al, 1999). Thus the concept of the 'opportunity structure' is central to understanding migrant entrepreneurship. However, the mixed embeddedness framework takes this one step further from the entrepreneurial ecosystem and identifies the interaction of access to resources and structure on the accessibility of markets, rather than as 'add ons', as the entrepreneurial ecosystem concept does. As Aldrich and Waldinger (1990: 114)

highlight, 'groups can only work with the resources made available to them by their environments, and the structure of opportunities is constantly changing in modern industrial societies'.

Second, and leading from the first, is that of access to resources. Kloosterman (2010) stresses on the accessibility of the opportunity structure being dependant on the entrepreneur's access to resources, i.e., human, social, and financial resources. Within that, the social embeddedness of entrepreneurs has been highlighted as being influential in gaining financial and human capital (Kloosterman et al, 1999). To that end, highly skilled individuals operating in expanding markets such as tech have more of a growth potential (Kloosterman, 2010). However, despite the acknowledgement of highly skilled individuals into the framework, the theory does not specify if, and how, they operate differently. To that effect, while the framework recognises the importance of resources, it remains somewhat vague with regards the kind of resources that migrant entrepreneurs in the tech sector access, or have access to. The theory of the entrepreneurial ecosystem however elaborates more on that very aspect. In many ways, the concept of the entrepreneurial ecosystem draws on similar ideas as those in the mixed embeddedness framework, for example by emphasising the value of access to markets, human capital and finance in supporting a 'successful' ecosystem (WEF, 2013). However the breakdown of these 'pillars' (i.e., the aforementioned access to markets, human capital and finance) provide further empirical specificity to the terms of the debate. For instance, Feld (2012: 186-187) provides deeper insight by highlighting the need for a 'strong, dense, and supportive community of VCs, angels, seed investors, and other forms of financing'; 'large companies... (which) encourage cooperation with high-growth start-ups; 'large number of events for entrepreneurs and community to connect, with highly visible and authentic participants (e.g. meet-ups,

pitch days, startup weekends, boot camps, hackathons, and competitions)'. Furthermore, similar to the mixed embeddedness framework, the role of knowledge, and the convertibility of social to human capital, is also central to that of the entrepreneurial ecosystem. However, the specificity provided by the concept of the entrepreneurial ecosystem makes it more concrete. According to Stam and Spigel (2015: 5) 'in addition to market and technical knowledge, entrepreneurial knowledge is crucial. Knowledge about the entrepreneurship process is shared between entrepreneurs and mentors through informal social networks, entrepreneurship organizations, and training courses offered'.

Third, the entrepreneurial ecosystem also complements the mixed embeddedness theory particularly by highlighting specific policies and policy tools that prove critical to the success of high-tech firms. The mixed embeddedness theory highlights the fact that the 'opportunity structure itself is a product of socioeconomic and institutional forces' (Kloosterman, 2010: 41) and that the 'size and shape of the opportunity structure' (ibid: 37) depend on the broader institutional framework. Kloosterman (ibid) finds certain dimensions along which the institutional framework of a country may affect the opportunity structure; however, this mixed embeddedness framework is once again vague with regards the tech sector. The concept of the entrepreneurial ecosystem here too elaborates on that specific aspect, as government support for startups has been specifically discussed in this literature. Feld (2012: 186-187) further focuses on the need for 'strong government support and understanding of start-ups to economic growth. Additionally supportive policies should be in place covering economic development, tax, and investment vehicles'. Feld (ibid) also stresses on the importance of institutional intermediaries such as 'many well-respected mentors and advisors

giving back across all stages, sectors, demographics, and geographies as well as a solid presence of effective, visible, well-integrated accelerators and incubators'.

Thus, the aforementioned similarities between the two theories further show their complementarity as well. These resources are key to the tech community where, as the above statements highlight, being part of a common all-encompassing 'ecosystem' is what binds them together rather than simply industry or market. However, while the mixed embeddedness theory stresses on the level of ease in accessing basic resources, whereby an entrepreneur's human capital determines the 'true' level of access of other resources (Kloosterman, 2010), the concept of the 'entrepreneurial ecosystem' provides more specific elements to the specific case of the tech sector, where high levels of human capital, are by default, already a common denominator.

The fourth way that the two concepts of mixed embeddedness and the entrepreneurial ecosystem are connected, is that of location. However, this locational factor may be considered a limitation of both theories. Location is an important factor in analysing both the theories as it must be stressed that both are local/regional/national in their outlook. The mixed embeddedness theory considers migrant entrepreneurship from a perspective of local integration, with Kloosterman et al (1999: 253) stating that migrant entrepreneurs are embedded 'in the socio-economic and politico-institutional environment of the country of settlement'. This locational factor is also central to the entrepreneurial ecosystem as, at its core, is the development of an environment conducive to entrepreneurship structured around a given location. To that effect, the concept is mostly targeted at policy makers for the development of regional areas (Stam, 2015). But as research by Bagwell (2018) has already pointed out, the national character of the mixed embeddedness model is sorely in need of re-evaluation. Even the

theory of the entrepreneurial ecosystem is limited in its outlook as it fails to take into consideration the international character of tech entrepreneurship.

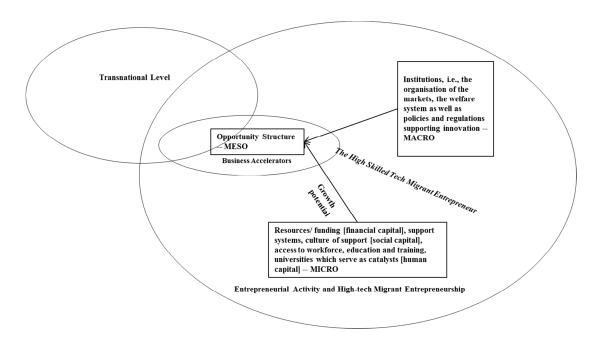
Within all of this, it is important to once again mention that the mixed embeddedness and entrepreneurial ecosystem approaches to studying entrepreneurship are philosophically different with Gast et al (2016) pointing out the former to be more of a social constructionist bent and the latter taking a neo-liberal positivist outlook. While the entrepreneurial ecosystem approach highlights what a 'good' ecosystem should look like to successfully enable entrepreneurship, the mixed embeddedness perspective views the social actors, i.e., the entrepreneurs as gaining knowledge via interaction with various institutions (Gast et al, 2016). Nevertheless, it must be stressed that irrespective of the philosophical differences between the mixed embeddedness and the ecosystem approaches, the fourth similarity between the two theories is that the entrepreneur is at the heart of both theories, thus making it apt to link the two theories. The mixed embeddedness theory makes this more obvious, giving priority to the agency of the entrepreneur. With the concept of the entrepreneurial ecosystem, the entrepreneur too is central, with Stam (2015) affirming that entrepreneurs are important players in keeping the ecosystem 'healthy'. This centrality of the entrepreneur has been highlighted in the literature review of the entrepreneurial ecosystem above.

However, in attempting to define what a 'successful' entrepreneurial ecosystem should look like, the theory gets overloaded with predisposing factors that shape entrepreneurial activity. In doing so, this policy oriented theory loses sight of causality (Stam, 2015). Nevertheless, certain elements of this theory need to be relied on since the mixed embeddedness theory, with its focus on ethnicity, lacks specificity about both the nature of resources as well as the institutions that affect specific groups such as

tech entrepreneurs. Thus, though the two theories cannot be used interchangeably to understand migrant tech entrepreneurship, they complement each other.

Keeping the mixed embeddedness theory at the core, and incorporating certain elements of the entrepreneurial ecosystem, the figure below highlights the interplay of entrepreneurial resources, the institutional framework and the accessibility of markets in shaping the opportunity structure for high-tech migrant entrepreneurship.

Figure 2.2 -- Analytical framework: business accelerators and the opportunity structure for the high skilled migrant entrepreneur in tech



Business accelerators offer both start-up finance through seed competitions, and continuing know-how support through a short term-intensive programme (Miller and Bound, 2011). They are facilitators of visas as they are endorsed by seed competitions, however they also act as intermediaries in attracting and selecting the world's talent to the UK through other policy programmes as presented in the section above. Consequently, they open up/ provide easier access to new markets. Business

accelerators are also looked on favourably in the start-up community due to their 'bootcamp' process. Bootcamps speed up either the growth or failure of a venture, making them popular amongst entrepreneurs who want quick results (Haines, 2014). Accordingly, as the diagram above illustrates, business accelerators have been situated as part of the 'opportunity structure' of the expanding post-industrial high skilled markets.

The entrepreneurs in this study, i.e., tech entrepreneurs, have high levels of human capital, and operate in high growth markets. Their opportunities are shaped by the migration regime of the country; policies supporting tech entrepreneurship in general; and their access to a heavy supply of vital financial, social and human resources to operate in these competitive markets. Thus, the accessibility of the market in general and the ecosystem within which they operate is just as vital to high-tech migrant entrepreneurs as it is to other tech entrepreneurs, as well as to migrant entrepreneurs operating in different markets. However, within all of this lies the centrality of entrepreneurial agency as mentioned above, i.e., the decisions they make and the resources they mobilise. This thesis therefore puts the high skilled migrant entrepreneurs in the centre and investigates the ways they mediate their experiences and chart their entrepreneurship through business accelerators. The next chapter will now discuss the methodology of this thesis.

Chapter 3: Methodology

3.1 Introduction

This thesis is an exploratory study of a distinctive type of entrepreneurship, i.e., high skilled migrant entrepreneurship in tech which has been mediated through business accelerators in the UK. The previous chapter discussed the literature on business accelerators, migrant entrepreneurship and tech entrepreneurship linking it up to the concepts of 'mixed embeddedness' and the 'entrepreneurial ecosystem'. This chapter now describes and justifies the approaches used to research the phenomenon in question. Migrant entrepreneurs operating this style of business, and using this specific mechanism, have not been studied in the academic literature to date. Thus, due to this novel phenomenon of high skilled migrant entrepreneurs using business accelerators, the research question identified required an exploratory qualitative research strategy. The thesis draws on semi-structured interviews with 45 entrepreneurs, 14 migrants to the UK originally from non-EEA countries, 16 migrants to the UK originally from EEA countries and 15 entrepreneurs originally from the UK. All 45 entrepreneurs have taken part in seven business accelerators officially endorsed by the Home Office's UK Visas and Immigration and the Department for International Trade between 2011 and 2016. A critical realist position has informed the thinking behind the entire research.

This chapter begins by outlining the ontological and epistemological orientations of this study, highlighting the trends in entrepreneurship and migration research as well. The research design and the strategy behind the selection of interviewees, which was based on theoretical sampling, is then explained. This is followed by a description of how the

data was analysed. The final section is a note on the embeddedness of research ethics into the entire study.

3.2 Ontological and Epistemological Orientations -- Studying High Skilled Migrant Entrepreneurship through a Critical Realist Lens

This thesis studies high skilled migrant entrepreneurship in the tech sector using a 'mixed embeddedness' approach (Kloosterman et al, 1999) because of its relational nature whereby structure and agency are both taken into account. This is a qualitative study due to the exploratory nature of the topic. However, the philosophy of the social sciences needs to be considered while framing one's research outline, because the philosophical research paradigm a researcher adopts contains significant assumptions about the way he or she views the world (Saunders and Lewis, 2012). And one of the main concerns within this is that of paradigmatic commensurability. According to Howorth et al (2005), if paradigms are incommensurable units (as purported by Burrell and Morgan, 1979), 'studies and individual researchers will sit firmly in one paradigm and never the twain shall meet' (p 26). While James and Vinniecombe (2002) have cautioned against letting our intrinsic partialities disturb our research design, Blaikie (2000) describes these characteristics as part of a chain of choices that the researcher must consider, and must also show that this position connects these choices back to the original research problem. Consequently, the novelty of business accelerators as well as the recent nature of these being linked to migration policy, led to the creation of an exploratory research design since qualitative methods are more suitable for understanding complex issues, novel phenomena, and contributing towards theory building (Eisenhardt and Graebner 2007).

However, using a qualitative design has also meant acknowledging the debates against qualitative methodology. Objectivists argue that the 'scientific method' needs 'publicly observable, replicable facts' and this is only possible when studying 'overt behaviour' (Diesing, 1966: 124). They also believe that subjective singularities such as intention, suppression, conception, can only be considered indirectly through their links with overt behaviour (ibid). Subjectivists, on the other hand, argue that any science that ignores the meaning and purpose of human behaviour, is not a true social science. Since human behaviour is ruled by reasons and images rather than causes and stimuli, any social science must attempt to study this from the view of the actor (ibid).

In an attempt to bypass the binaries, Weber (2004:12-13) has reasoned that while the 'rhetoric of positivism vs. interpretivism' has been enormously helpful in paving the groundwork for change, and in doing so, 'unseating the positivist hegemony and allowing newer, interpretive forms of research to grow and prosper', it is finally time to discard this rhetoric. The solution to such issues is promoted with a critical realist perspective, which makes the assumption that the settling of methodologies needs to be at the ontological level. The distinctive features of critical realism are a 're-vindication of ontology' (Bhaskar and Lawson, 1998:5); a critique of the reduction of the real to the actual, and the actual to the empirical, a trust that instruments or 'mechanisms' have causal forces which may not necessarily be enforced but exist independently of the researcher's perception nonetheless; an outlook that society is stratified, integrates 'mechanisms' at various stages, and components of these 'mechanisms' cannot be 'reduced to those of the level from which they emerged'; a view in which entities have developing characteristics which intermingle with one another due to which newer characteristics then emerge; and 'the designation of the relation between structure and agency as the key framing device at the ontological level' (Scott, 2007: 14). Thus,

while there is no unitary dogma or methodology that binds critical realists, it is nevertheless the reflexive philosophical stance that emphasises the need to examine ones assumptions about the social world. It is with this reflexivity that this research has been conducted.

This acknowledgement of structure and agency has been further realised through the recognition that the debate between the two factors continues to exist within migration studies as well as entrepreneurship studies. Even if the debate is now old, it keeps recurring in different guises, whether it be as a debate over micro-macro level of analysis or be it individuals vs. society, or voluntarism vs. determinism (Bakewell, 2010). This debate is vital to migration studies as the agency of migrants plays an important role, both in migration theory developments, as well as policy responses to migration (Faist, 2000). This leads to different approaches to research, where the assumption of a determinist position tends to disregard the behaviour and decisions of the actors involved. Consequently, the voluntarist position focuses solely on the agency of individuals and does not consider the wider social structures at play, unless those structures are reconciled through the migrant's decision making (Bakewell, 2010). This paradigmatic debate continues even within entrepreneurship studies which starts right with the definition of the 'entrepreneur' and 'entrepreneurship'. There have been arguments that this field of study suffers from reaching generalisations without theory and fragmentation (Howorth et al, 2005). Gartner (2001) therefore emphasises that progress in the development of entrepreneurship theory relies on researchers being aware of the assumptions that ground their work.

Within migrant entrepreneurship research, this issue of subjectivity presents itself when migrant entrepreneurs are portrayed as being victims of structure, as highlighted in the literature review. Examples of exceptions to this research are those by Nee and Sanders

(2001) who study the resources they mobilise to acknowledge the agency of the entrepreneur rather than to highlight the inequalities within structures. However, this too has been argued as being subjective, with Ram and Jones (2008) contending that it is still one sided as it tends to ignore the migrant as being anything more than the sum of his resources.

The theory of 'mixed embeddedness' offered by Klosterman et al (1999), and which this thesis is based on, is therefore seen as a solution to this problem where it is argued that structure and agency matter simultaneously. They argue that markets and the institutional framework are important contributors to a migrant's access to capital as well as to the causes and consequences of migrant entrepreneurship, just as is a migrant's own agency central to mobilising co-ethnic capital. The acknowledgement of these different contexts 'draws on critical realism's idea of a layered ontology' which essentially means to go beneath the level of the actual to study the deeper processes at play (Ram et al, 2015: 565). This theory of 'mixed embeddedness' is built on Granovetter (1985) and Aldrich and Waldinger's (1990) theories where the former argues that all economic action is embedded in social relations which affect business development, while the latter points to market conditions which affect business opportunities. Kloosterman et al (1999) therefore put forth that the social and economic embeddedness of migrant entrepreneurs was intermingled in shaping entrepreneurial outcomes, and the conception of mixed embeddedness was promoted as a better explanation which has been widely supported by researchers to explain entrepreneurship in different settings.

This thesis recognises this relationship between structure and agency of the highly skilled migrant entrepreneur in tech, and therefore investigates how entrepreneurs mobilise resources and in the process navigate policy through the use of policy

endorsed accelerators. This relationship between structure and agency has been acknowledged in the data collection and analysis of this research, and subsequently been described. The study was not hindered by overt partiality, but guided by the understanding and acceptance that reality exists apart from one's own experience and knowledge. Therefore, this critical realist perspective guided the conceptualisation, data collection, and analysis of this study.

3.3 Research Design

This thesis is a study of the use of business accelerators by entrepreneurs in the tech sector, with a special focus on migrant entrepreneurs. The study is based on an exploratory ground-up research design as this is a novel phenomenon which has not been studied before. The main research question of this study is as follows.

Research Question – How do high skilled migrant entrepreneurs in the tech sector navigate their entrepreneurship with the use of business accelerators?

As the aim of this thesis is to explore how business accelerators factor into the decisions of high skilled migrant entrepreneurs, it is important to take into consideration factors at the macro, meso, and micro levels that affected the said decisions. Thus, to get a sound understanding of these decisions, both structure and agency needed to be given due importance in the research design. Therefore, this consideration was factored in right from data collection. First and foremost, this research used purposive sampling and therefore draws on interviews with entrepreneurs from diverse countries. An equal amount of interviewees were targeted to represent migrant entrepreneurs from countries outside the EEA, migrant entrepreneurs from

within the EEA, and British entrepreneurs. And for consistency, a further delineating factor was to ensure that all the interviewees went through one or more of the seven business accelerators officially endorsed by the Home Office's UK Visas and Immigration and the Department for International Trade as sponsors of the Tier 1 (Entrepreneur) Visa.

This first step ensured an understanding of any migration policy influences on the use of business accelerators. Accordingly, this decision to collect the data from these three comparative groups was to understand whether the decisions the entrepreneurs made were policy necessitated or whether this was a wider trend indicative of the nature of tech, and where policy was simply an enabler of innovation or conversely, a restrictor of wider spread migrant entrepreneurship. Accordingly, almost all Non-EEA entrepreneurs who used these accelerators, and whose contact information was obtainable (be it personal, company based, generic, or social media linked), were contacted. Numbers were then equally balanced with EEA and British entrepreneurs through the same means. Accordingly, this thesis draws on in-depth interviews with 45 entrepreneurs, 14 entrepreneurs were from outside the EEA area, 16 entrepreneurs from within the EEA area, and 15 British entrepreneurs.

The next step to ensure that all aspects of structure and agency were taken into consideration was in the interview process. The need for qualitative semi-structured interviews has been due to the exploratory nature of this study. The in-depth nature of the interviews allowed for exploring the circumstances at play, while the structure allowed for the creation of reliable and comparable qualitative data across the three groups. Questions were all encompassing, ranging from the interviewees' backgrounds and their motivations and rationale behind their various migratory and entrepreneurial decisions, to their individual experiences in the entire process. Accordingly, their

agency was given due credit, whilst also ensuring that any 'influencing' factors of structure were taken into account.

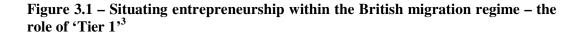
Finally, on analysing the interviewee data, this same consideration of structure and agency led to the breakdown of the empirical chapters, where this interplay has been represented in how business accelerators and entrepreneur decisions connect at the meso, micro, and macro levels.

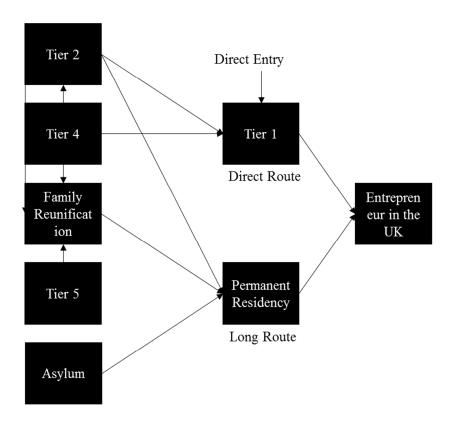
This research design is based on the theory of 'mixed embeddedness' by Kloosterman et al (1999) which is also relational in nature and takes into account both structure and agency. This theory takes into account 'the micro level of the individual entrepreneur (with his or her resources) with the meso-level of the local opportunity structure and links the latter in a more loose way to the macro-institutional framework' (Kloosterman, 2010: 25). Within this, business accelerators have been situated as shaping the opportunity structure for migrant entrepreneurship as it a policy endorsed institution to recruit and select the 'right' kind of migrant entrepreneur, but then, which also opens the British market for those deemed 'suitable'. This thesis however is also based on the understanding that migrant entrepreneurship often moves beyond national boundaries, with business accelerators themselves operating in multiple countries at the same time. Consequently, Chapter 4 of this thesis examines the agency of entrepreneurs and business accelerators, i.e., how do they use the opportunity structure which the accelerators are a part of, to thus chart their entrepreneurship and their migration. Chapter 5 goes down to the micro level and draws attention to how the entrepreneurs mobilised resources and converted their capital using business accelerators. Chapter 6 then goes back to the macro-institutional level and examines the constraints on how, and how much, entrepreneurs can 'use' business accelerators as a resource by highlighting the institutional embeddedness of the opportunity structure.

Going back once again to the choice of interviewees as the first step of data collection, the need to focus on these entrepreneurs from these specific accelerators was based on a combination of factors. The first such reason is that of the changing nature of migration policy and its increasing selectivity where not only has a limit on migration numbers been placed, but where high skilled migration has also been targeted, and where visa sponsorship has become a requirement in most situations. Herein, the power of accelerators becomes apparent as sponsors and overall decision makers of who to 'recruit' to the UK. The second reason is due to an attempt made to understand the 'migrant tech scene' through additional exploratory fieldwork conducted prior to conducting interviews. This step was undertaken with the explicit purpose of designing a study that would soundly explain this specific policy enabled mechanism. The following section therefore elaborates more on that below. This is then followed by going through the data collection process in detail, subsequently followed by the analysis of the data collected.

3.3.1 Practical Justifications – Policy

Unless Non-EEA individuals have 'leave to remain' in the UK by means of long term settlement, dependency, or asylum, policy today allows 'new' migrants to the country to only start a business on the Tier 1 Entrepreneur Visa, thus justifying the need to study this entrepreneurship. The figure below highlights this.





Essentially what this figure illustrates is that non-EEA individuals are legally required to either be on the Tier 1 Entrepreneur or Graduate Entrepreneur Visa, be married to a UK resident, be a refugee, or be a permanent resident to become an entrepreneur in the UK. Thus the Tier 1 visa schemes are central to the promotion of high skilled migrant

³ Tier 1 refers to the various entrepreneur and 'high worth' visas. These include the graduate entrepreneur visa, the £200,000 self-funded entrepreneur visa, the £50,000 funded visa via venture capital or seed competitions, the £1m investment visa, and the exceptional talent visa for individuals endorsed by the Home Office who are recognised as emerging leaders in science, humanities, engineering, medicine, digital technology or the arts. Tier 2 refers to the highly skilled work visa which requires sponsorship from a UK company and a substantially high minimum salary. Tier 3 refers to low skilled work. This route has never been opened. Tier 4 refers to the long term (over 6 months) student visa. Tier 5 refers to a short term internship visa.

entrepreneurship and are one of the few remaining routes for individuals to set up a business in the UK.

Within this promotion of the Tier 1, the role of business accelerators appears on multiple levels. Not only are business accelerators directly linked to the Tier 1 Entrepreneur visa as reducing the funds required for said visa, but accelerators have also been linked to the Sirius programme (which was subsequently linked to the Tier 1 Graduate Entrepreneur Visa) as well as to the Global Entrepreneur Programme, which promotes high-tech migrant entrepreneurship in the UK. These programmes have therefore been summarised below highlighting how they work with business accelerators.

a. Tier 1 Entrepreneur Visa

Entrepreneurs with fledgling startups that have high growth potential normally have to apply for the Tier 1 Entrepreneur Visa to move to the United Kingdom (exceptions have been noted above). For this, entrepreneurs require £200,000 investment from personal funding or alternatively £50,000 from a sanctioned organisation (venture capital firm, UK government, or through a DIT⁴ (Department for International Trade, formerly UKTI -- UK Trade and Investment) endorsed seed competition. At the time of writing, there are eleven accelerators whose programmes the DIT has endorsed as approved 'seed competitions'. Furthermore, a latest update on the Home Office website shows that individuals already in the UK as students can only

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⁴ The DIT is one of the 22 non ministerial departments of the government. It is responsible for international trade and investment, help British companies expand globally, increase the country's export potential, and encourage overseas businesses to set base in the UK.

transfer to the Tier 1 Entrepreneur Visa with funding from a sanctioned seed competition, i.e., business accelerators, or personal funds. Venture capital funding no longer figures in the process, with modifications also being made for individuals converting from other visas to Tier 1 Entrepreneur Visas, further bolstering the value and 'power' of business accelerators⁵.

b. Tier 1 Graduate Entrepreneur Visa⁶

This route is for recent graduates from universities in the UK to start a business in the country, but is distinct from the Tier 1 Entrepreneur scheme in its lack of financial requirements for application. However, to be eligible for this visa scheme, all graduates have to be sponsored by an approved UK Higher Education Institution. The only exception for graduates from non-UK universities is if they are sponsored by the DIT for its Sirius programme. In the Sirius programme, graduates of British universities not a part of the Tier 1 Graduate Entrepreneur visa scheme either have to apply to the DIT, or directly for the Tier 1 Entrepreneur Visa. These visas are valid only for a year, and can be renewed for a further year if the university is still willing to endorse its graduates, after which all entrepreneurs have to transfer to the Tier 1 Entrepreneur visa if they wish to continue to remain in the UK. The Tier 1 Graduate Entrepreneur Visa also does not lead to settlement in the UK. A recent Migration Advisory Committee (2016) evaluation on the Tier 1 routes suggested more power be given to accelerators, and even the Tier 1 Graduate Entrepreneur route be explicitly linked to them as the

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⁵ https://www.gov.uk/tier-1-entrepreneur/overview

⁶ https://www.gov.uk/government/publications/endorsing-bodies-tier-1-graduate-entrepreneur

https://www.gov.uk/tier-1-graduate-entrepreneur-visa

https://www.gov.uk/tier-1-graduate-entrepreneur-visa/extend-your-visa

selection procedures adopted by accelerators were considered robust and would thus be in a better place to 'recruit start-up talent from anywhere in the world' (p 148).

c. Global Entrepreneur Programme⁷

The Global Entrepreneur Programme was launched in 2003 by the UKTI to encourage foreign businesses set up base in the UK. It was also to cater to foreign entrepreneurs operating high-tech ventures in cyber, robotics, aerospace, fintech, medtech, digital media and big data to start up their ventures in the UK with the help of twelve (now nineteen) 'Deal Makers', who are drawn in as agents in the process. These entrepreneurs, settled in different parts of the world with networking links to the UK, identify and assess other foreign entrepreneurs; mediate between the public and private sector; and encourage potential participants to relocate to the UK. This programme does not mandate that entrepreneurs join accelerators or offer additional benefits for joining a business accelerator other than the ease of Tier 1 visa restrictions. However, over the years, the GEP has been modified substantially with visa changes, and the inclusion of founders of accelerators as dealmakers. These dealmakers offer 'support (which) is free and includes help to develop business plans; assistance with relocating to the UK; providing introductions to investors; guidance on how to grow internationally; mentoring from experienced entrepreneurs; and continued help once located in the UK' (Migration Advisory Committee, 2016: 111).

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⁷ https://www.gov.uk/government/publications/entrepreneurs-setting-up-in-the-uk/entrepreneurs-setting-up-in-the-uk

d. Sirius Programme⁸

The Sirius programme is meant to attract global entrepreneurs, specifically recent graduates from around the world to start their ventures in agri-science, robotics, advanced materials, energy, big data, regenerative medicine, synthetic biology, and commercial applications of space. It was initially started as a pilot programme in September 2013. The programme originally recruited 47 companies in two cohorts, some pre-existing and some new. This took place via two streams, the business stream and the ideas stream. The selection process was open, with scores given for different criteria. Though the streams were advertised as being judged by the then UKTI on factors such as -- the combination of team members (higher scores given to multiple cofounders with a range of qualifications); the potential impact it leaves on the UK; market strategy; and the entrepreneurial skills of the team members, the final decisions were made by individual accelerators.

There were initially five accelerators associated with the UKTI and its Sirius programme. These accelerators ran custom made programmes that had been specifically designed for the Sirius but were slightly different from their regular programmes⁹. This comprised support on manufacturing, sales, legal, human resources, accounting, funding opportunities and mentoring for the duration of the programme.¹⁰ The accelerator programmes were longer, running for six months with another six months of incubation space given. A key feature of the programmes here however was

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⁸ https://www.gov.uk/government/collections/sirius-programme-for-graduate-entrepreneurs, http://www.siriusprogramme.com.

⁹ Based on a thorough research of publically published information by all the accelerators linked to the Sirius programme.

¹⁰ https://www.omnicompete.com/hosting/ukti/faqs.php

that no equity was taken. Non-EEA applicants could apply for a Tier 1 Graduate Entrepreneur visa to enter the UK on this programme.

The pilot programme ran for a year and after a gap of 3 years was re-launched in 2017. The Sirius programme while retaining its initial characteristics in terms of participant requirements, is now run by a different group of private companies. Furthermore, ten per cent equity is now taken in exchange for participation on the programme.

Thus, in this increasingly restrictive migration regime, the value of business accelerators cannot be ignored in the promotion of high skilled migrant entrepreneurship.

3.3.2 Practical Justifications – Popularity

To set the scene for data collection, the primary research started with a complete immersion into the start-up scene, both online and offline, and the decision to interview entrepreneurs who used accelerators was further enforced based on this experience. Three entrepreneur networking events were attended, one a general business show, the second a technology entrepreneur specific event, and the third, a migrant business show. Informal conversations with a number of entrepreneurs and resource providers took place at the various events. This was supplemented by active participation in a number of social media entrepreneur networking groups and informal chats were had with a range of entrepreneurs online as well. Here I noticed that business accelerators were mentioned again and again, with them either being promoted at the events, or online. Furthermore, the entrepreneurs appeared to show a high degree of trust in the accelerator system, with multiple entrepreneurs offering tips to others on social media on maximising their chances of being accepted by them. Consequently, a leading

accelerator was contacted and an invitation to attend their Demo Day was received. In addition, three accelerators were visited which led to very helpful conversations with the programme directors of two of the accelerators. On request, secondary information from a programme director was received with a complete profile of all the entrepreneurs on their programmes, which included their nationalities. Moreover, interview data was supplemented with archival data from various sources including publically available government archives online, websites and news articles about the different accelerators and their entrepreneurs, their social media profiles, as well as blogs and other articles written by them. These secondary sources helped with familiarisation of the context as well as helped create case histories of the entrepreneurs before the interviews as a means to triangulate the insights gained from the interviews (Huberman and Miles, 1983).

3.4 Data Collection

3.4.1 Selection of Participants

For the selection of participants for this study, the decision to split the entrepreneurs into three groups of non-EEA, EEA, and UK was made so as to investigate the extent to which their decisions were policy necessitated or whether they were indicative of the nature of tech as mentioned earlier. The Non-EEA entrepreneurs' home countries included countries in North America, Latin America, East, South, and Central Asia, the Middle East, and Australasia. The decision to focus on an over-arching non-EEA group rather than specific regions was reached after analysing the pubic profiles of all the

ventures and their founders' information listed publicly, wherein the diversity of their backgrounds was realised.

For consistency, all the entrepreneurs interviewed here have been selected through the same set of seven Tier 1 approved accelerators, which constituted all of the accelerators endorsed by the Home Office for the Tier 1 Entrepreneur visa at the time of data collection. While the justification for studying business accelerators has already been highlighted previously, using business accelerators as a sampling tool also increased the chances of interviewing more recent entrepreneurs to the UK, creating diversity in the data and an additional analytical lens into the literature which now includes individuals who migrate as entrepreneurs.

All 45 interviews were conducted late-2015 to late-2016. At the time of data collection, there were seven business accelerators that were linked to the Tier 1 Entrepreneur Visa. On 20th August 2016, it was noticed that an 8th accelerator had been added, but it had only 10 companies in its portfolio, and based on the LinkedIn profiles of the entrepreneurs, none appeared to be from outside the UK. Therefore nobody was contacted. However, at the time of writing, there are now 11 accelerators endorsed by the UKVI/Home Office. Data for this study includes participants from all initial seven accelerators. These accelerators were Oxygen Accelerator, Techstars, Collider, Wayra, Seedcamp, Emerge Education, and Entrepreneur First.

3.4.2 Accelerators in this Study

As a group, business accelerators are offered as seed funds to entrepreneurs by the government. Acceptance onto an accelerator lowers the funds required by entrepreneurs for a visa. This indirectly implicates accelerators as being intermediaries between the

government and the entrepreneurs to select the 'best talent'. However, the seven accelerators are very diverse in their operation type, the sub-sectors they operated in, multi-nationality, source of funding, and at the time of writing, even status as an accelerator.

The following table provides detailed information of the modes of operation of the seven business accelerators involved in this study. 11

http://www.oxygenaccelerator.com/ (Note -- Oxygen Accelerator's website is no longer active, with no alternate website online, therefore information provided here may not be up-to-date. However, Oxygen is still listed as an official visa endorser on the UKV1 website.)

https://wayra.co.uk/

http://emerge.education/

www.joinef.com

collider.io/

techstars.com

seedcamp.com

Databases

https://gust.com/

https://www.gov.uk/government/publications/business-incubators-and-accelerators-thenational-picture

c. Other sources

https://thenextweb.com/eu/2014/07/15/seedcamp-launches-third-fund-time-wants-givestartups-shot-longevity/

https://www.gov.uk/government/news/deputy-prime-minister-opens-new-startupaccelerator-wayra-unltd

http://techcrunch.com/2015/07/15/entrepreneur-first/#.kgsjj4:CdRw

¹¹ Sources of Information –

a. Accelerator Websites

Table 3.1 – The accelerators in this study

	Oxygen	Wayra (General)	Emerge Education	Entrepreneur First	Collider	Techstars	Seedcamp
Length (months)	3 + 3	Varied	3****	6	3*****	3	3 + 6****
Sector*	Digital Tech	Digital Tech	Education	Deep Tech	MAd Tech	Digital Tech	Digital Tech
HQ	UK	Spain	UK	UK	UK	USA	UK
Activity Locations	UK	Spain, UK, Colombia, Czech Republic*****, Germany, Brazil, Peru, Argentina, Chile, Mexico, Venezuela	UK	UK, Singapore, Germany, Hong Kong	UK, Netherlands	UK, USA, Canada, Germany, Australia, South Africa, Israel, India	UK*****
Location in the UK	Birmingham , London	London, Cheltenham, Milton Keynes, and Greater Manchester	London	London	London	London	London
Workspace Offered	Yes	Yes	Yes	No	No	Yes	Yes
Stage of Ventures Accepted	Early	Early	Early, Late	Pre-Startup	Early	Early, Late	Startup, Early
Finance Offered	£15k + 6k per founder	up to \$50k in cash and services	£25k	£40k to £100k	£50k OR £100k	\$20k +\$100k convertible note	None – up to Euro 75k
Equity (%)	8 or 4	Varied	8 equity + £10k	Varied	Varied,	6 for the initial 20k, equity back	3 for no cash, 5 for 25k, up to

			programme fee.			guarantee which allows entrepreneurs to re-negotiate the equity that was taken after the course ends ¹²	an additional 50k for another 2
Source of Funding	Private	Corporate	Private (Angels / Strategic Investors)	VC (initially angel investment)	Private (Angels)	Private / Corporate (DigitalOcean, SendGrid, AWSActivate, CooleyLLP, Google Cloud Platform, IBM, Microsoft, Silicon Valley Bank, Fried Frank Technology)	VC Index Ventures, Octopus Investments, Connect Ventures, Credo Ventures, Smedvig Capital, Caixa Capital, European Investment Fund
No. Accepted per year in the UK (Avg)	30	10	10	250 individuals***	9	10	20
UK Launch	2011	2012	2013	2011	2012	2013	2007
Founders	Sole entrepreneur	Telefonica (Spanish	Final year university	Two recent graduates	Network of angels	Four serial entrepreneurs and	Group of investors

¹² https://www.techstars.com/content/accelerators/announcements/equity-back-guarantee/

	cum angel	communications	student		angel investors	
	investor	multinational)				

^{*} Digital technology covers geolocation, apps, software, hardware, IoT, gaming and virtual reality. Deep technology' covers chemistry, physics, nanotech and electronics based companies. MAd Tech is the term informally used for tech in the Marketing and advertising sub-sectors.

- *** EF accepts individuals rather than startups
- **** At the time of writing, Emerge Education and Seedcamp no longer run an 'accelerated' programme.
- **** At the time of writing, Wayra no longer operates in the Czech Republic
- ***** At the time of writing, Collider now runs a six month programme.
- ****** 'Mini-Seedcamps' shorter programmes have also taken place in Germany and Sweden; however these have been one-off events.

^{**} During the pre-startup stage, focus is predominantly on the entrepreneur/founder with emphasis on identifying the idea and the product market. Startup companies are in the process of being set up or newly-formed company and yet to sell their product commercially. Early-stage ventures require further funding for commercial manufacturing and will not yet be generating profits. Later-stage ventures demonstrate a steady rate of growth and are more likely to be profitable than the earlier stages (Bone et al, 2017: 6).

Using Pauwel et al's (2016) typology of accelerators, the table above will be further unpacked to highlight the differences in the accelerators' modes of operation. To recap, Pauwel et al (2016) distinguished between different types of accelerators based on shareholder objectives, and put forth three types of accelerators. The 'ecosystem builder' is a corporate accelerator aiming to create an 'ecosystem' of stakeholders and customers around the parent company. The 'deal flow maker' is a liaison between investors and entrepreneurs and the 'welfare stimulator', an accelerator with government agencies as the main stakeholder

In this study, two accelerators have always run in the 'traditional' way with a 'boot camp' style programme and the same business model across all its programmes. Another two which run in the 'traditional' way, as noted, also have varied programmes targeting different audiences, while a further three may be considered slight exceptions to the 'traditional' accelerator model.

a. Standardised Accelerators

Techstars, one of the leading accelerators in the world, and the founder of the Global Accelerator Network (GAN)¹³, is synonymous with the term 'accelerator'. GAN is a network of accelerators, ventures, and investors. GAN prides itself on extreme selectivity, and all accelerators in this network function on a standard boot camp style accelerator model.

13 www.gan.co

Collider essentially acts as a funding mediator between the investors and the entrepreneurs. This VC aspect of the accelerator is further affirmed by the fact that now for its three month 'boot camp', the entrepreneurs do not have to be based in the UK or the Netherlands if they so desire, but simply have to be registered as a UK or Dutch Limited company for the duration and attend any workshops and events hosted by the accelerator over the period. Note – all the interviewees in this study who used Collider were based full time in the UK for the entire duration of the programme.

b. Accelerators with Varied Programmes

Oxygen Accelerator on the other hand is an accelerator which in the past has functioned on two different models. It is the only accelerator to be linked with both the Tier 1 Entrepreneur Visa scheme as well as the pilot Sirius Programme. With regards its regular programmes, pre-seed investment comes from a small network of angel investors with Oxygen acting as a mediator. However, as part of the Sirius programme it worked as a 'welfare stimulator' as its main stakeholder became the government, and the accelerator, a service provider. It therefore ran an extended programme catering to the needs of the government rather than any private investors.

Another accelerator which runs on different typologies is *Wayra*. For the Tier 1 Entrepreneur Visa, its model is straightforward, and its role is that of a 'deal flow maker'. However, in 2013, Wayra launched Wayra UnLtd, which is funded via UK government initiatives, with the aim of identifying social entrepreneurs using digital technology and

accelerate their entry into the market. ¹⁴ While Wayra's general programme is a 3 month boot camp, it now runs a range of acceleration and pre-acceleration programmes in different parts of the UK. These focus on different industries, with different terms and conditions and different programme structures¹⁵. This is in part due to the very core of the accelerator, its investors, which in this case is Telefonica, making it a corporate-backed accelerator. Thus, in its social accelerator programme, it works as a 'welfare simulator', and in its specialised industry or sector specific programmes, it functions as an 'ecosystem builder'.

c. Exceptions to the 'Traditional' Accelerator Model

Three key exceptions to the accelerator model are Emerge Education, Seedcamp, and Entrepreneur First.

At the time of data collection, *Emerge Education* was a niche-industry 3 month boot camp style accelerator in the Education Technology sector. However, at the time of writing, it no longer refers to itself as an accelerator. Emerge Education now operates as a syndicate or a mediator between startups and angel investors. These investors can choose to operate as venture partners who mentor the entrepreneurs and open up their networks to them. Additionally, Emerge Education organises retreats, series of boot camp courses on various topics and networking events for as many years as it takes for the startups to reach their Series A round of funding. When it ran as an accelerator, Emerge Education had a

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https://www.gov.uk/government/news/deputy-prime-minister-opens-new-startup-accelerator-wayra-unltd

¹⁵ https://wayra.co.uk/our-programmes/

dedicated community of early product testers and adopters such as schools, colleges, and corporates who provided input throughout the programme. Investor lunches were also hosted throughout the programme to encourage early angel investing.

Another exception is **Seedcamp**. Seedcamp is an early stage micro-seed investment and mentoring programme which makes investment decisions several times throughout the year based on the winners of its events¹⁶ as well as via its regular online application process for international entrepreneurs. At the time of writing, Seedcamp functions more as a seed fund rather than an accelerator with entrepreneurs choosing the degree of mentorship and funding they desire, with flexible equity terms based on that¹⁷. It started with running a three month accelerator programme, which was still in place during data collection, however, Seedcamp's business model has been continuously evolving and at the time of writing, it no longer runs a three month 'boot camp' but is now focussed on ventures achieving longevity¹⁸. It now simply considers itself to be a seed fund with additional benefits of mentorship, networks, and helps in securing further funding through a 'platform' offering. While this description makes it clear that Seedcamp functions as a 'deal flow maker', some variations must be noted. While they do admit entrepreneurs from all over the world, they tend to focus on European entrepreneurs. Their website clearly states that they consider themselves to be 'Europe's Seed Fund'. Thus, in the process of investing in startups, its rather local focus highlights its role as a 'welfare stimulator' as well.

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¹⁶ http://seedcamp.com/the-seedcamp-platform/, http://seedcamp.com/events/

¹⁷ http://seedcamp.com/our-deal-terms/

¹⁸ https://thenextweb.com/eu/2014/07/15/seedcamp-launches-third-fund-time-wants-give-startups-shot-longevity/

The third exception to the traditional accelerator model is *Education First*. However, the difference is more in their ideology rather than an abandonment of the boot camp style of running an accelerator. In its thinking that, 'finding a co-founder in the wild is hard', they focus on 'outliers' and highlight that their main focus is on 'bring(ing) together extraordinary people to build startups from scratch'. Its six month programme delivers widespread support that facilitates technical entrepreneurs to build their teams, validate their ideas, develop the initial product and then raise investment. The accelerator is unique in the sense that it targets entrepreneurs with high-technical qualifications rather than business ideas. The accelerator then scours other highly technical individuals, such as senior technology employees in multinationals and post-doctoral fellows in Engineering, to join their programmes to help others build ideas into viable products. The first three months of the programme are spent 'playing around with ideas' and forming the teams, and the next three months spent on the actual acceleration of the startup. ¹⁹

3.4.3 The Interview Process

Data collection continued till every effort was made to interview as many entrepreneurs possible from the target group, while maintaining balance between the three groups. The aim was to interview as many non-EEA accelerator participants as possible, and in this process, every entrepreneur from the accelerators who was deemed to be a non-EEA migrant (see more below on this) was contacted. Similar numbers were then matched with the EEA migrant and British entrepreneur groups as well. This theoretical form of

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¹⁹ http://www.joinef.com/our-programme/

sampling was controlled by the needs of the emerging theory (Coyne, 1997). This sampling included a continuous generation of codes and themes which helped improve the questionnaire as the data collection progressed. This was also represented in the decision to create diversity in the data by balancing accounts with interviews from entrepreneurs from the UK and within the EEA to investigate the interaction of policy and individual decisions.

Information on participants at the accelerators was collected via information from each accelerator's investment portfolio published online (in addition to the case specified earlier). Individual details on each firm, its founders, and their specific descriptors were then gained via their individual social media profiles. Interviewees were contacted either via their personal emails, general company enquiry emails, company contact forms, or via social media. For a small number of firms, no contact information was available.

A breakdown of entrepreneurs based on nationality, gender, launch year, education, and sector in which they operate has been represented in Table 3.2 below. A complete profile has been included in the Appendices of this thesis for the purposes of examination.

Table 3.2 – Overview of the sample

Variables		Non-	EEA	British
.		EEA	1.6	1.5
No. of		14	16	15
Interviewees				
Gender	Male	10	12	14
	Female	4	4	1
Age	Mid 20s	1	3	2
	Around 30 (Late 20s to early 30s)	13	10	10
	Around 40 (Late 30s to early 40s)	0	1	2
	Around 50 (Late 40s to early 50s)	0	2	1
Education	Undergraduate	2	9	10
	Postgraduate (Taught)	8	6	2
	Postgraduate (Research)	4	1	3
Startup Year	2011	0	0	2
(not necessarily	2012	5	0	1
in the UK)	2013	3	4	4
	2014	2	6	4
	2015	3	5	4
	2016	1	1	0
Industry/Sector	Marketing and Advertising Tech	4	3	4
-	Financial Tech	4	0	0
	Education Tech	1	6	2
	Services Tech (e.g., online	3	3	6
	marketplaces, booking platforms)			
	Computing and Cybersecurity	0	3	2
	Others	2	1	1

The table above highlights that the majority of the participants were male and relatively young, from mid 20s to early 30s. The non-EEA group as a whole also had higher qualifications than the other groups, reflective of selective migration policies, making education more of a necessity for those bound by policy. Businesses run by participants in the study operated in very diverse high-tech sub-sectors, and had been in operation for less than four years, reflecting the short time period accelerators had been active till the time of data collection.

Stages of the interview process involved making contact, gaining consent to participate in the research, setting up a time and medium, gaining permission to audio record the call, audio recording when permission given, continuing with the interview and making notes simultaneously, reviewing each interview immediately afterwards for emerging themes and adding probes for further interviews if needed.

Interviews were conducted via a combination of mediums, i.e., face-to face, Skype, and telephone. This allowed extended access to participants who were in different geographical locations and thus hard to reach due to the nature of their work (Mann and Stewart, 2000). Skype and telephone options were included as it is representative of the kinds of businesses technology entrepreneurs run with co-founders and employees permanently based all over the world. Furthermore, response rates increased when these options were included in the introductions sent.

A quote by an interviewee best highlights this.

'Tech nerds want efficiency without having to meet people face to face.'

Virtual connections thus enabled face time with entrepreneurs who were busy travelling around the world for work. This allowed interviewees to call when they were free as scheduling often proved difficult with tech entrepreneurs working non-standard hours and often being called away unexpectedly at the last minute. With time differences when they were travelling, meant Skype interviews even took place at 2AM. Despite the variations in medium, even telephonic interviews were in-depth with most being an hour in length, highlighting the complementarity of the modality of the interview and the telephone medium (Cachia and Millward, 2011).

The questions posed covered the backgrounds of the entrepreneurs, why they chose to move to the UK, how they raised finances, how they networked, and probing for their experiences mobilising resources in the UK. Their reasons for using business accelerators was also explored, once again probing on their expectations as well as their experiences on the accelerator, as well as general experiences in operating a business in the UK, with further probes on their opinions on the changing landscape of entrepreneurial resources in the startup scene in the UK. The level of probes however depended on the participant. A topic guide was created to follow a semi-structured interview style. But due to a number of factors, as will be mentioned below, the guide was altered to ensure that a rapport was continuously maintained. More data was collected from some, while less from others. This has involved a lot of self-reflection, and reflection on the interview process with regards power differences. Literature on power difference is very well established, and has highlighted that there are two factors that determine the outlook of an interview, the institutional context, and the status of the interviewer (Sabot, 1999), with literature pointing to specific considerations such as university and sponsor backing (Sabot, 1999; Welch et al, 2002), gender (Smith, 2006), race (Sabot, 1999), and position of the researcher (Mwale, 2014), all affecting interview dynamics.

Consequently questions were sometimes phrased differently for different participants. Interviews also differed based on the amount of time that the interviewee had and the amount of information they wished to share. Interviews ranged from 30 to 90 minutes. An hour was typically requested from the participants, however, in the cases of the shorter interviews, their time constraints were mentioned prior to setting up the interview, and therefore the degree of probes were reduced. Due to this factor of time constraints along

with the rapport that was created with different interviewees, it was felt that in some cases cursory information on the entrepreneur's backgrounds should be excluded, and simply confirmed during the interview, as every effort was made to collect as much data about them online prior to the interview. While some entrepreneurs were surprised at the extent of information that was collected online prior to the interviews, others had expected it. Most entrepreneurs took that as a cue to talk about their history in-depth, which was very much appreciated, but some entrepreneurs, confirmed, and left it at that, indicating they did not wish to elaborate on 'obvious questions' about themselves that they had already publicly published online. For instance, a British entrepreneur interviewed early on during the data collection process, referred to his social media profiles to answer a number of questions relating to his background. As he was a serial entrepreneur, the question about his entire entrepreneurial journey naturally followed. He responded referring to his LinkedIn profile.

'Well yes, I started early on. It's all on LinkedIn'.

This essentially highlights the public nature of tech entrepreneurs' professional lives, and the need to keep all further interview information anonymous due to their easily identifiable profiles, as the interviewees did not want some of their opinions linked to them. The variation in time however has not affected the analysis of the research questions, as all interviews were content rich, offering different and highly specific insights into their lives, and the tech entrepreneurial world in general.

3.5 Data Analysis

As this is a new phenomenon that is being explored, interviews were analysed inductively through the identification of themes. As mentioned above, the data collection was exploratory. Therefore, as data collection progressed, open coding helped evaluate emerging themes within the richness and diversity of the data. However, this was then further analysed inductively and systematically using thematic analysis. This thematic analysis involved a thorough reading and re-reading of the data, and patterns were recognised, where the themes that emerged became the classifications of analysis (Flick, 2013).

Interviews involved a range of open ended questions to understand the rationale behind the various decisions of the entrepreneurs. Themes emerged from the data highlighting the substantial influence of the accelerator not just in their resource mobilisation, but also in their short and long term migratory trajectories as well as their overall entrepreneurial decisions. The coding frame also emerged from the data and was not pre-created. The data analysis did not just rely on inductive analysis, but left room for a further deductive analysis to recheck whether there was validity to the themes that arose. This led to the refinement of the research question which highlighted new insights into high skilled migrant entrepreneurship. The three themes that appeared were as follows.

- a. The agency of the high skilled migrant entrepreneurs in utilising business accelerators to chart their migration.
- b. The interplay of business accelerators and access to resources.

c. The institutional embeddedness of business accelerators.

The full steps of the data analysis have been summarised in the table below.

Table 3.3 – Stages of data analysis

Steps	Process			
Step 1	Open coding took place during data collection to identify emerging themes and			
	alter the topic guide if needed.			
Step 2	A template of codes was created based on a reading of the Non-EEA data.			
Step 3	Reliability of the codes was tested with the EEA data and then with the British			
	data and further codes were identified.			
Step 4	Codes were summarised and grouped into themes.			
Step 5	Re-immersion into the literature to legitimise the themes identified.			

The coding process first involved open coding during the data collection phase and the topic guide was slightly altered as and when needed. After the data collection, the data provided by the 14 entrepreneurs from non-EEA countries was put front and centre to create a template of codes. This was then followed with the other two groups of individuals from the UK and within the EEA region while simultaneously comparing the data between the three groups. Content analysis (and its associated counting) was further used, albeit with caution, as a proxy for significance (Vaismoradi et al, 2013). This helped me identify the emerging themes.

The table below highlights this.

Table 3.4 – Coding framework

Initial Repetitive Codes	Initial Themes	Refined Themes	Final Themes
Existing networks/connection (via	Reasons for migration,	Surveying the global	Perceptions of the Global Opportunity
employment/education in the UK	reasons for	entrepreneurial	Structure, Perceptions of the British
and/or abroad)	entrepreneurship, level of	landscape, 'influence'	Opportunity Structure, 'Accelerator
Perceptions of market/industry	education/technical skills,	of accelerator',	Hopping'
Past migration	financial resources, social	'influence' of	
Physical distance	resources, benefits of	institutions and/or	
Language/cultural distance	accelerators, limitations of	policy	
Perceptions of entrepreneurial	accelerators, access to		
environment/ecosystem	follow-on funding, access		
Corporate identity	to talent, access to		
Perceptions of accelerator	property, bureaucracy and		
'Scouted' by accelerator	'access' to the UK, Brexit,		
Applications to multiple	culture		
accelerators			
Institutional factors linked to			
migration- tax regime, access to			
single market, Sirius			
Quality of life			
Migration as student			
Migration as employee			
Migration as entrepreneur			
Savings		Conversions of	Human-Cultural Capital and Training
Friends and family		capital; substitutions	Opportunities; Financial Capital and
Government		of traditional capital	Seed Funding; Social Capital and
Seed and pre-seed vs. series A (with			Support Systems; Upshots of Accelerator
and without accelerator)			Resources
LinkedIn			

To further emphasise this process, an example has been presented. For instance, while talking about why entrepreneurs chose the UK, a consistent pattern developed where the majority of entrepreneurs spoke about surveying the global entrepreneurial landscape and the strategic elimination of other countries in destination choice. Furthermore, out of these, while most had considered the UK at some point, or had previously migrated to the UK, the majority of entrepreneurs from these were only willing to make the move as an entrepreneur to the UK after acceptance onto an accelerator. The excerpt below from the interview with Dominic (Box 1), a serial entrepreneur from within the EEA, highlights this strategic decision making process. (A -- Alia; D -- Dominic)

Box 1 – Excerpt from the interview with Dominic, entrepreneur from within the EEA

A -- So, since you have previous entrepreneurial experience in (home country), why did you choose to move to the UK this time around?

D -- So I considered four options. I had the freedom to base my company the second time. I made a conscious choice. The first time around I did not really consider moving out of (home country) at all because that is where I had customers, where I had the team. So it happened spontaneously, and not really an option. But with (current company) I had the contract and I found the cofounders as well. The options we considered were (home country), UK, US, and Europe. In Europe, more specifically Germany. We decided on London for a few different reason. One was that one of the Cofounders was based in London at the time as he was doing a PhD at (a university in the UK). And also, I had lived in London previously so I knew the city. And of course English language always makes things easier. And I researched a lot the environment in different places in Europe where one can run a startup. America wasn't a very practical option at the time because of visa restrictions and associated costs to move there. And none of us had any established presence there. The other English speaking country was the UK, London being the hub. And considering two of the cofounders out of three were comfortable with London, it was natural choice. Germany was also an option, because language barrier is lesser. Two of us speak German. But the startup scene is not that active and not that concentrated as the one in London. So it was the best option. We are all from (the same country). So it was clear that there would be some presence in (home country) and that is where the development is going to be done. As that is our advantage. We have access to a cheaper talent, so we can run our team in (home country) with our connections, which other startups based in London need to arrange in the UK which is much more expensive. But for corporate identity it was important to be based in a well-established region so that we can have international views with both investors and customers, with the customers being confident that they are dealing with a legal and literate framework, and that also from the UK there are SEIS schemes which helped with making the decision to found the company in the UK. And so we started networking, got contacts, and got accepted onto an accelerator. So then we quickly got established very early in the UK with regards to corporate dealings and development in (home country).

A -- That's really interesting. So, two inter-related questions to that. Since you mentioned that acceptance to an accelerator helped you get established, what were your key motivations and expectations from the accelerator? And why did you choose (this particular accelerator)?

D -- What motivated me at the start wasn't the same as what I got out of it. The things that we were after when we applied to (the accelerator) were qualification that we were on the right track and the funding. Of course we were interested in the networking and mentorship offered by the programme but at first we were most attracted by the funding and later, of course funding is important when you are barely starting and you need to pay the expenses to pay to the project full time. But then the networking opportunity through the accelerator proved maybe even more valuable.

A -- But if it was funding you were after, why (this particular accelerator)? Were there other options you considered?

D -- Well, it was a gamble. Because we were the first cohort we did not know how good it was going to be and it was a gamble that paid off well. It was the first accelerator focussed on (niche technology) which we thought, 'this was great', because when the accelerator is industry focussed you can get better network. But the popular accelerator rounds like X and Y, they offer great network, but they are not specialised, and in a (niche) technology accelerator you get exposure to investors who maybe you are not considering at X or wherever because it is quite specific. So partnership opportunities are there.

From the first part of the excerpt above, the following codes emerged. These were existing networks/connection, past migration, physical distance, language/cultural distance, entrepreneurial environment/ecosystem, corporate identity, and accelerator. As a theme these codes were grouped under how the global entrepreneurial landscape was surveyed. The final sentences of the excerpt then also show how Dominic and his cofounders strategically used an accelerator to establish themselves entrepreneurially in the UK. Costs to move to another country were considered to be an influencer in their

decision to move, and so was the need for certification of their idea, as well as potential partnerships to make moving worth the effort. Therefore, acceptance to an accelerator which provided funding, but also other perks, proved to be key. Thus, his agency in the strategic use of accelerators to chart his migration, as well as mobilise resources, becomes apparent.

Interviewee data was not further separated by region as the analysis pointed to the fact that local conditions in the UK, and the influence of the accelerator, were factors for all interviewees in the entrepreneurial location choice, irrespective of their country of origin. This made their individual nationalities beyond the breakdown based on visa regime, i.e., EEA, non-EEA, and UK groupings, unimportant as a focus of analysis.

While the literature helped shape the creation of a topic guide, immersion into the literature once again after the coding process, helped evaluate further links between the data, as Tables 3.3 and 3.4 above highlight. This therefore involved a more in-depth analysis of the extant literature once again.

3.6 Reflections on the Research Process -- Research Ethics, Limitations and Positionality

3.6.1 Ethics

An overview of the data collection was submitted to the ethics committee to seek their approval before any level of fieldwork (including informally speaking to participants at networking events) began. The general risk assessment for this research was considered 'low', and was approved by the Ethical Committee at the University of Sussex. However, in addition to anonymising their names, care has been taken to ensure the

interviewees are not easily identifiable. This is because of the very small overall population having used these accelerators as mentioned above, and the fact that some of the interviewees were the only individuals from their countries to have used these accelerators, providing countries of origin would make them easily identifiable. Most accelerators only accept around ten participants onto their programmes in a given round and had gone through no more than five rounds at the time of study, and indeed in some cases had only hosted a couple of cohorts. Although accelerators do not release figures on the nationality of their members (with the one exception, which was received on request), an analysis of the profiles of entrepreneurs listed on their websites suggests that around a fifth of the businesses they support to date are run by non-EEA migrant entrepreneurs. This search was thorough as every single listed venture on every accelerator's webpages was individually researched. Furthermore, some of the data might be deemed sensitive considering the fact that business accelerators are also shareholders in the entrepreneurs' ventures. The need for anonymity was also further emphasised by a few entrepreneurs who were relieved when the level of data that would be anonymised to ensure their privacy, was explained to them. Therefore, care was taken to ensure all references to countries of origin, names of accelerators used, employee and partner names, and universities attended were anonymised. It is also for that reason that the complete profile of the entrepreneurs included in the Appendices of this thesis is only for the examiners.

3.6.2 Limitations

The first obvious limitation is the number of participants. The numbers were limited due to the small overall population at the time of data collection. However, the

empirical data is thorough as almost every entrepreneur from non-EEA countries who had 'presence' in the UK and whose information was publically available was contacted. These numbers are now increasing rapidly, with more accelerators being added to the list of Tier 1 seed competitions, as well as the Sirius programme being renewed in 2017.

The second limitation is the aspect of self-selection of migrant entrepreneurs using the accelerators. This thesis has not studied migrant entrepreneurs who have not used business accelerators. Initially I immersed myself in the tech startup scene, and conversed with migrant entrepreneurs who did not utilise accelerators. However, it was soon realised that all the entrepreneurs contacted were settled in the UK for substantial periods of time. I therefore felt that a clearer methodological framework simply targeting Tier 1 endorsed accelerators enabled a sound understanding of this very specific policy mechanism. Furthermore, it could be argued that an entrepreneur who does not apply to an accelerator simply does not need the accelerator's funding. Considering the few routes to entrepreneurship in the UK, the entrepreneur would have to already have had a high amount of personal funds to gain a visa, already putting them at an advantage with respect to other entrepreneurs, be they international, or local. The entrepreneurs who might choose not to use or might not be aware of the promotion of business accelerators via policy, would also potentially be entrepreneurs who are already settled in the country via other routes. They might also be entrepreneurs who simply preferred not to give equity away.

The third limitation is that of the value of studying the accelerator in itself, considering the fact that two of the accelerators no longer consider themselves accelerators but long term funds instead. In this thesis, the value of the 'accelerator model' per se is not in question, rather the value of accelerators as selection tools for policy, and the attraction

of a concept that promises hands on support and easy access into a new market. These accelerators, even if they no longer advertise themselves as such, still invest in companies through the same highly competitive process. They also offer hands on support, mentoring, and instant access to extended networks. The only difference is that they do not offer this in the form of a three month programme, but instead now ensure a longer connection with their firms to potentially ensure they gain a return on their investment, rather than accelerating companies to potential failure. Furthermore, policy, at least at the moment, continues to believe in the accelerator concept, as a further five accelerators have been endorsed by them as seed funds since data collection for this research ended. These five still consider themselves to be accelerators, at least for the moment. At the same time, accelerators have globally established themselves as more than a fad with the sheer number of accelerators growing by the day.

The fourth limitation is the fact that a longitudinal study could not be included to evaluate the number of entrepreneurs that eventually stayed back in the UK. Since the promotion of accelerators is a new policy addition, a longitudinal study would have also enabled a better understanding of entrepreneur experiences as well as the true impact of this policy promotion. The fieldwork was limited in its time constraints of a three/four year PhD. However, the thesis offers novel understandings on accelerators due to the short time period accelerators had been active until the time of research.

3.6.3 Researcher Positionality

This research is about how highly skilled migrant entrepreneurs utilise business accelerators to chart their entrepreneurship. As the first section of this chapter has highlighted, I follow a critical realist school of thought. That essentially means that I

acknowledge that we as human beings are subjective, yet at the same time feel that it is still possible to make relatively justifiable claims about reality.

Understanding positionality is essential to acknowledge the subjectivity of researchers. However, while they are related, I see them as distinct entities. Maher and Tetrault (1994: 22) define positionality as the 'knower's specific position in any context as defined by race, gender, class, and other socially significant dimensions'. I am a relatively young, international Non-EEA female student. While my ethnicity/nationality and/or background as being an international student and/or age group might lead me to share these commonalities with some of my interviewees, my research showcases the diversity of backgrounds, migratory trajectories and experiences, with the aim of the research being to explore exactly what was actually happening on the ground. Accordingly, the decision to focus on business accelerators has simply been a result of studying the changes in migration policy as well as initial fieldwork to understand the extent of its use.

Research surrounding migrant entrepreneurship has often overemphasised structure. This research is therefore an attempt to study the actual processes at play in the use of business accelerators, which might, on the face of it, appear to be purely a structural result as it is a by-product of policy reforms. However, the need to understand the agency of the high skilled entrepreneurs and their experiences in this era of increased selectivity is much needed. Accordingly, I wanted to know why the entrepreneurs in question chose the UK to start their venture, how did they get funding for their ventures, how did they mobilise support, why did they use accelerators, and what was their overall experience. This exploratory thinking has been represented in the data collection and the analysis of the work as highlighted in the previous sections. As I mention in section 3.4.3, where I reflect on the interview process, I further

acknowledge my position as a researcher and an outsider from the startup world in the entire research process. However, as I further highlight in that section, the need to reflect on my positionality was not out of the ordinary, and in fact helped me alter the interviews to time constraints that interviewees had, and in the process, I believe, made me a better researcher. Therefore, my positionality is in no way related to my understanding of what the participants in this research experienced. The next three chapters will now discuss the empirical findings of this thesis, with the first of the three evaluating the role of business accelerators in entrepreneurial destination choice.

Chapter 4: Entrepreneurial Agency, Business Accelerators and the Opportunity Structure

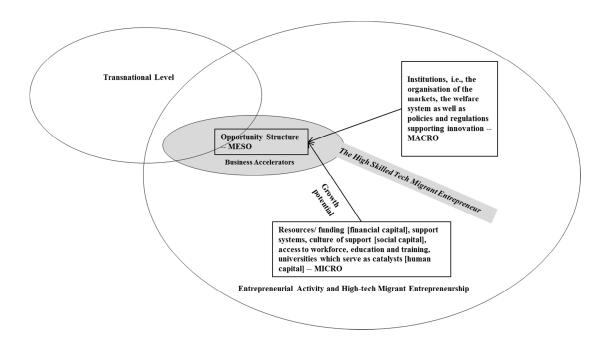
4.1 Introduction

This first empirical chapter investigates the entrepreneurs' migration histories and reasons for moving to the UK, highlighting how high skilled tech entrepreneurs take business accelerators into consideration in making decisions about their migration. Recognising this agency of the entrepreneurs is important to set the scene to fully explore how they build networks (local and international) and mobilise resources, and understand the influence of the national-institutional opportunity structure that the entrepreneurs operate within.

The chapter starts with unpacking the factors that affected their entrepreneurial migratory trajectories. This then continues to focus specifically on the ways the entrepreneurs mediated their migration through business accelerators by examining the factors considered to set up in the UK and also to explore newer markets or entrepreneurial environments. The phenomenon of 'accelerator hopping' is an original contribution to the literature as it highlights one of the ways business accelerators have the potential to open up transnationality beyond diasporic and home-host connections.

The figure below highlights the links this chapter makes to the analytical framework.

Figure 4.1 -- Analytical framework: the agency of the high skilled tech entrepreneur, business accelerators, and the opportunity structure



4.2 Perceptions of the British Opportunity Structure

The findings suggest that the decision to migrate as an entrepreneur, or to start a venture in the UK if already previously migrated to the country, were based on the pursuit of the best entrepreneurial environment, rather than push factors in the home or host country. The following table highlights the various factors that affected their decisions in choosing a destination to move to the UK. This has then been analysed in the following sections. While being part of a government endorsed accelerator was the methodological delineator in this research, the individuals' reasoning for this participation is crucial in understanding this phenomenon.

Table 4.1 – Factors affecting UK as a destination choice

Factors	Non-EEA	EEA	UK (15)
	(14)	(16)	
Market/Industry/ Entrepreneurial Environment	6	14	-
Pre-existing social networks	9	8	-
Familiarity with language	-	3	-
'Quality of Life'	-	2	-
Proximity to home country	-	8	15 ²⁰
Scouted by the Accelerator	5	4	-
Other Accelerator Related Reasons	6	8	-

The accessibility of markets is key when studying migrant entrepreneurship as market conditions are shaped by external factors such as changing migration policies (Kloosterman et al, 1999). As such, for a few entrepreneurs, the UK was a strategic choice. Within Europe, London is informally considered the leading hub of financial technology (Fin Tech), marketing and advertising technology (MAd Tech) as well as education technology (Ed Tech). This is not only because of the presence of startups operating in those technological sub-sectors but due to the presence of large financial institutions, general creative advertising, and the number of leading universities. Furthermore, London is one of the leaders in the global fashion and entertainment industries as well. Therefore, for entrepreneurs operating in these sub-sectors, the UK factored into one of their top choices. Harper, for example, was working in a third country and turned to entrepreneurship there. For him, the need to move to the UK was straightforward.

'So we started in (a third country) which is not the best place for financial stuff because most of the customers are in larger markets like London and

²⁰ By default, all the British entrepreneurs started their business in the UK; however, some later chose to operate from other countries. Data regarding accelerator use has not been included for the British dataset in this table as accelerators were not the reason they were actually living in the UK.

Switzerland and so on. So we moved to London in particular because of its proximity to large financial institutions... which is close to what we do in terms of work'. (Harper, entrepreneur from outside the EEA)

However, factors beyond the immediate industry, such as larger and more developed markets, and an overall 'entrepreneurial' environment were just as important for others. Hans's case below shows the overlap between the need for an environment that is conducive to entrepreneurship on the whole and the decision to move to the UK.

"...there aren't that many places in the world where you will find so called free money where someone will believe in you as an entrepreneur and be willing to put the money on you and not on a business which is already successful or has the product-market fit... in my view, there is only Silicon Valley in US. And there is second London, and Berlin, and Amsterdam." (Hans, entrepreneur from outside the EEA)

Along with the industry and market however, general perceptions of the overall entrepreneurial environment included considerations such as ease of opening a business, and presence of government tax schemes enabling startup funding. The UK presents itself²¹ as the ideal place for startups or growth entrepreneurs, encouraging investment by offering low corporate taxation, 'hassle-free' registration, the second largest labour force in Europe, and most importantly, government support. These institutional variables however, were considered in tandem with other factors. Simply being in the centre of a 'thriving startup scene' was a consideration for some entrepreneurs. This combined factor of a 'successful' entrepreneurial ecosystem reveals an environment that might help a venture succeed, as such a location would have overall larger levels of support, and thus an opportunity structure more open to migrant tech entrepreneurs.

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²¹ https://www.gov.uk/government/publications/entrepreneurs-setting-up-in-the-uk/entrepreneurs-setting-up-in-the-uk

Fluency in the language (e.g. Melitz and Toubal, 2014; Nowotny, 2015) was also mentioned, however, it was only important to three entrepreneurs, all from within the EEA, and among them, this was considered in tandem with the fact that operating in a country that predominantly speaks English would give credibility to young firms. It has also been cited as making the firm easier to then operate on a global scale. For example,

'The solution that we developed was not suitable for the central European markets plus the reach of English... need to focus on other English speaking cultures 'cause otherwise the cost of deployment and marketing and positioning the product is too high so that's number one'. (Ian, entrepreneur from within the EEA)

Quality of life (e.g., Scott, 2010; Levkovich and Rouwendal, 2014) in the potential destination was also cited, but only by two entrepreneurs, both again from within the EEA. This referred to factors such as a 'free thinking society', or a country with 'creative cultural roots'.

Familiarity with the host country, however, was an important determinant for destination choice as it displayed the level of ease of accessing the country's opportunities. Exactly half of the migrant entrepreneurs in this research studied in the UK (nine from outside the EEA and six from within the EEA), and either directly started a firm after studying (as mentioned above); stayed back to work and then started a firm (as also mentioned above); moved back to their home countries, or ventured into third countries before moving back to the UK as an entrepreneur. This trajectory shows the importance of familiarity with the host country, and the subsequent importance of existing networks in the host country as an influencer in shaping entrepreneurial decisions as it endorses the potential for easier access to opportunities in the country.

Roman, for example, had previous ties in the UK. On successfully launching his business at home in Europe, options were considered on where to 'explore' next. This previous connection made the UK an easier choice.

'I studied in the UK and worked for three years in the UK as well. So that made things a little bit easier for where to go for our next step.' (Roman, entrepreneur from within the EEA)

Similarly, Christina, had established networks in the UK as a student, and as a post-study worker²². She met her cofounder in the UK, a fellow international student, and decided to take advantage of the Sirius programme as she considered herself 'established' in the country.

'We have never considered anywhere else, mainly because we have been living here. We both have been living here for between 6 to 7 years, that's where we live... I think people, typically entrepreneurs who apply for these kinds of government initiatives are different, in the sense that they are much more determined, they are much more eager, much more willing, to fight and to persevere to make things work. '(Christina, entrepreneur from outside the EEA)

While Christina might not have had to move across borders as an entrepreneur, her experience is still vital in understanding the quest for entrepreneurial migration. The existence of prior networks also led four other graduate entrepreneurs like Christina from outside the EEA to convert their migratory status in the UK to 'entrepreneur'.

Finally, an important consideration was being in a country that was close to the entrepreneurs' home country, as well as lack of policy restrictions on incorporating a

information.

²² The post-study work scheme allowed all international students from countries outside the EEA region, and studying at universities in the UK, a further two years to explore work options. This route closed in 2012. See https://www.gov.uk/government/publications/tier-1-post-study-work-guidance for more

business in the country. This was the obvious reason mentioned by all the British entrepreneurs in the sample. The quote below by Trevor, a British entrepreneur, operating a social venture in the UK, was typical of most British respondents.

'Well I'm, British, so it made sense to launch it at home.' (Trevor, British entrepreneur)

Amongst the migrant entrepreneurs however, this was unsurprisingly only mentioned by entrepreneurs from within the EEA. Ian, for example, as mentioned above, needed to focus on English speaking cultures due to the nature of the product he was selling. From these, however, the UK became his top choice in part due to the proximity to his home country.

"...the UK being the only viable choice basically... it would be easy to move around and come back home and that was very important to us as well." (Ian, entrepreneur from within the EEA)

This connection with home country, with factors such as ease of setting up a business and migration policy towards certain nationalities, is important to note especially when considered with future regulatory changes involving the UK leaving the European Union and the limitations it might impose. Countries with thriving start-up scenes such as in North America and Asia were eliminated in the decision making process purely due to visa impracticalities. Dominic, for example had considered four options to base his company in. He considered his home country, USA, UK, and Europe in general. He eliminated his home country, and most of Europe, as he felt his product did not fit the continental market. UK was his last option by default as he was not bound by migration policy.

'America wasn't a very practical option at the time because of visa restrictions and those costs to move there'. (Dominic, entrepreneur from within the EEA)

Therefore, migration policy restrictions could become an issue as entrepreneurs chose to be in countries where they could easily tap into networks in multiple countries simultaneously. In this research, it was found that ten out of the sixteen entrepreneurs from the EEA had cofounders based in their home countries and/or had offices in their home countries, hiring co-nationals there, and/or being personally based in their home countries for a substantial part of the year.

'I never thought of actually moving to the UK. The accelerator was a good business opportunity. But I prefer to be based at home. And the company is also now here. (Thomas, entrepreneur from within the EEA)

While aspects such as the international reputation of a country might be important, physical distance and migration policy matter simultaneously. This indicates a potential desire for high-tech entrepreneurs to 'migrate without having to migrate', where they are not really looking for a long term base but are simply testing different markets for their business, and thus in the pursuit of an opportunity structure with easily accessible markets.

4.3 Business Accelerators and the British Opportunity Structure

Out of the fifteen who migrated to the UK as entrepreneurs (i.e., they were either new to the UK or had not stayed back in the UK directly after studying or working, including nine entrepreneurs from within the EEA and six entrepreneurs from outside), thirteen moved on the factor that they were accepted onto an accelerator programme. To put this into context, some other statistics need to be considered as well. First, while the UK is considered the centre of Financial Technology, only four migrant

entrepreneurs started Fin Tech firms. Second, this needs to be considered with the fact that two of the seven accelerators in this study focussed purely on Education Technology (*Emerge Education*) and Marketing and Advertising Technology (*Collider*), indicating the higher numbers of entrepreneurs working in these fields (as shown in the methodology section). This in itself highlights that on its own, acceptance onto an accelerator was potentially more important than a country and its individual resources.

The findings suggest that business accelerators factored into their entrepreneurial trajectories in two ways. The first, entrepreneurs who were motivated to apply to the accelerators based on their own active need for an accelerator, and the second, entrepreneurs who incorporated the strategic use of accelerators into their decisions after being approached by accelerators.

The evidence suggested that for only seven out of the 30 migrant entrepreneurs, was the UK a strategic choice, and the accelerator the tool needed to make that move. Of these, four entrepreneurs from within the EEA, and three from outside, had targeted the UK specifically because of the market or the industry they operated in. While others too considered this route, it was not necessarily a top strategic choice, as the UK was part of a wider variety of options. The key word here is options. Due to the nature of these ventures (i.e., tech), the entrepreneurs of this study had the freedom of choice in entrepreneurial destinations. This was evidenced by the fact that for the majority of these entrepreneurs, including those who were familiar with the UK, considered a number of possibilities before narrowing in on the UK. In most cases, accelerators proved to be more important than industry and location. Harper, for instance, was looking for a location with better ties to his business but what was even more imperative was to do so with support and backing.

'It was essentially moving to a new place where we do not know very many people and we were hoping for it to open doors.' (Harper, entrepreneur from outside the EEA)

Moreover, with a few exceptions, most EEA entrepreneurs applied solely to business accelerators within the EEA region, which ultimately made the UK the destination by default.

'Accelerator Y (accelerator used in the UK) reached out to me... We have taken part in Accelerator X which is an accelerator in (a third country in the EU), non-equity. And then we applied to the usual suspects... we applied to quite a few. With (another accelerator in the US) we got through to the final round but didn't get in, but with Accelerator Y we got through, so we took them.' (Ed, entrepreneur from within the EEA)

However, for Ian, whose story has been mentioned above, upon strategically eliminating countries and narrowing in on the UK, his next decision had to be how he could make that move. His quote below articulates the attraction of the accelerator.

... because we were rookies in the field that we went into, my partner as well, and we felt that we needed to be supported by an incubator or an accelerator and we were looking for something in the UK which would be long term. Some of the programmes are very short in duration and some of them are quite long and Accelerator X was ranked as one of the best and that is why we wanted the best and that is why we decided to apply to Accelerator X obviously. (Ian, entrepreneur from within the EEA)

Jonas, on the other hand, had a slightly different story. Jonas, an entrepreneur from outside the EEA, was operating in a third country prior to moving to the UK. He was clear he needed to operate in the UK as the combination of market, industry, and legal frameworks were most conducive to operating his particular business in the UK. He intended to move to the UK on a Tier 1 Entrepreneur Visa and needed finance to operate in the country. His use of the accelerator was therefore straightforward.

'Your experience depends on what you might want to expect out of the accelerator. We went in for the money. So as a way to raise capital, it was good for us.' (Jonas, entrepreneur from outside the EEA)

Jonas's story very clearly depicts the way business accelerators are situated within the wider opportunity structure of high-tech migrant entrepreneurship. For the majority however, along with the accelerators that they applied to in the UK, and irrespective of whether they were already in the country or not, it seemed pragmatic to apply to accelerators all over the world, once again indicating that being accepted onto an accelerator programme was more important than the United Kingdom and its market. Anthony, for instance, had the UK on his mind, though he was not totally convinced of making the jump. He was enrolled on to an accelerator programme in his home country and things were going well. His communications and public relations director however would continuously apply to competitions, programmes, and the like, as 'tests' to see where they stood, and only when accepted by an accelerator in the UK did he decide to take advantage of the opportunity.

'...and she was filling these applications without our direct intervention and then one day we realise we had been accepted to the semi-final round to Accelerator Y (in the UK), and this was while we were at Accelerator X (in home country)... and it was kind of convenient coincidence, and decided ok, cool.' (Anthony, entrepreneur from within the EEA)

However, while some entrepreneurs actively searched for accelerators, others decided to take advantage of the opportunities afforded by accelerators after being approached by them. As all the accelerators in this study could be classified as 'deal flow makers' (Pauwels et al, 2016) in one way or another, this VC function of accelerators where they act as active investors who are always on the lookout for early stage firms to add to a portfolio of potential 'winners' (Baum and Silvermann, 2004), cannot be ignored in

the entrepreneurs eventual decisions as well. Amongst the interviewees, five non-EEA and four EEA entrepreneurs were 'scouted' by these accelerators. This was also seen with the British interviewees as well, with three entrepreneurs being scouted by the British accelerators. Most accelerators have global talent scouts that tap into a range of different networks looking for potential companies to add to their portfolio. This role of the accelerator as an 'active investor' is significant when further considered with a recent blog post by the CEO of the Global Accelerator Network, of which Techstars is a part. He stated that among those startups that have been accepted by their community in the past, only a small percentage of them applied through their online application process²³.

There was evidence of the UK Trade and Investment (now DIT) too actively approaching entrepreneurs for its Sirius programme. However, in the end, irrespective of whether they were approached or not, all the entrepreneurs decided to nevertheless use them for their own strategic needs. Gus, for instance, an entrepreneur from outside the EEA, was looking for mentorship, and found it in an accelerator in a third country in the EU. This accelerator then introduced him to contacts in a number of countries. This included directors of accelerators in the UK as the industry he operated in was 'big' in these countries. It was as a result of these meetings that the UKTI became aware of his company and approached him. He acted on this opportunity as it fit in with his larger strategic plans.

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²³ The Global Accelerator Network was started by the founders of Techstars in 2010, but is now an independent community of accelerators, partners and investors, and comprises 80 accelerators from around the world. However, among the seven accelerators in this study, Techstars is the only accelerator part of the community. The aforementioned blog/article by Patrick Riley, CEO of GAN may be found here -- https://medium.com/@patrickriley/what-the-startup-numbers-say-about-accelerators-impact-e56a7734aa68

'So someone from UKTI approached us, saying we have this programme, would you like to be part of this programme. We took that as an opportunity to be closer to London, and six months later we were over here.' (Gus, entrepreneur from outside the EEA)

Evidence pointed to entrepreneurs having been approached by accelerators through a combination of formal and informal means. For some, like Thomas, they were specifically targeted by the accelerator. While Thomas had no intention of migrating to the UK, he still ran a 'young' startup and felt he could benefit from continued mentorship. At the same time, being approached by the accelerator opened up global opportunities which he had not considered, but felt he could tap into and further explore.

'They reached out to us because we were already part of another accelerator here in (home country)... They actually sent us a message though our online contact form just like you did.' (Thomas, entrepreneur from within the EEA)

Others, like Dana, were 'found' at international conferences, hackathons and public pitching events. Dana, for instance, operates in the marketing sector and needed access to top brands globally. Being approached proved to be a 'happy coincidence' as she was actively looking for accelerators, without a focus on location.

'We applied to another accelerator in (home country). Actually I was really happy that didn't happen... then I met one of the guys who find startups at Web Summit and told us they had contacts with many brands'. (Dana, entrepreneur from within the EEA)

Thus, based on the ways entrepreneurs used accelerators, irrespective of whether they were looking for the particular accelerator that they joined, or whether they did so with the specific purpose of migrating to the UK, the accelerators provided them with access

to the British market. As a result, business accelerators are indirectly implicated in shaping the opportunity structure at the meso level for migrant entrepreneurship.

4.4 'Accelerator Hopping' and the Creation of a Transnational Social Space

The first two sections highlighted how entrepreneurs perceived the British opportunity structure, and how they used their agency to take advantage of the opportunities afforded by an accelerator to access the British market. Evidence will now be presented displaying entrepreneurs' use of business accelerators to explore multiple markets, with the focus being on examples where this was done after initially moving to the UK. This will underscore the creation of a transnational social space that is created through the entrepreneurs' strategic use of accelerators.

The findings very clearly suggested that business accelerators are influential in enabling entrepreneurial migration. First, as mentioned above, entrepreneurs applied to accelerators all over the world and went where they were accepted. This needs to be considered with the fact that accelerators are now emerging globally. And just as accelerators in the UK scouted for entrepreneurs, this phenomenon is not restricted to local accelerators. Programmes similar to the UK's Sirius programme are being offered by multiple nation states.

Andrew, for example, is an entrepreneur, from outside the EEA. He had been enrolled in an accelerator in a third country prior to moving to the UK with yet another accelerator. The environment in Andrew's home country at the time was not 'innovative', so he and his internationally based co-founder looked at global

accelerators for support in developing their project. Their pursuit of funding led them to the opportunities to work with accelerators transnationally.

"...we chose Accelerator X because their terms of investment were very good, they were very friendly to the entrepreneur, and also they added extra value. There are lot of angels out there who are happy to put money out there to see a return but they could not contribute anything beyond the money. But with Accelerator X they added significant value through their programme, their accelerator and incubator but they also restricted the angels who invested into that particular pool of talent had to be restricted to (the) industry. So all the people who invested into our company indirectly all had ties into the industry, so we could tap into. So there was a twofold benefit to us beyond the money." (Andrew, entrepreneur from outside the EEA)

For seven other migrant entrepreneurs, the UK was the third or more country they had moved to. Third countries that were ventured into 'entrepreneurially' *before* moving to the UK included countries such as USA, Norway, Latvia, Singapore, and the Czech Republic, among others. Likewise, for two other non-EEA entrepreneurs, moves were made to other EEA countries for work or study respectively, and that is where they launched their business, but eventually moved to the UK. What is noteworthy, however, is that in seven of these cases, business accelerators were used as tools to move to these third countries, or to help with their business if launched there, as they either needed funding, or support from the accelerator. This support needed was either, access to further investors, help with taking their company to the next growth stage, or simply the need for another focussed boot camp programme. This prior serial migration of entrepreneurs is interesting to note, as they survey the global entrepreneurial landscape, but prefer to make the move with some sort of support.

To further highlight this serial migration as entrepreneurs, the case of Alexander, an entrepreneur from within the EEA is mentioned. Alexander met his cofounder at a café in Asia, as he emphasised, 'as entrepreneurs do', where a casual discussion on a

business idea led to the development of a product. He and his cofounder then chose to move to another 'familiar' country within Asia, where he had previously worked, as he was aware of the country's favourable tax regime. A further move was then made to a third country where it would be even cheaper to operate, and therefore, bootstrap their business due to prior personal connections with the country. They then felt that they needed to tap bigger markets which led them to apply to accelerators globally, with their focus being on Silicon Valley. However, on acceptance to an accelerator in the UK, they took that as an opportunity to 'renew (their) startup connections in Europe' and thus made their move to the country. Therefore, even though the use of accelerators was not necessitated by policy for Alexander, this move however would not have been made if they had not been accepted by the accelerator as they had no personal or professional connections with the country. Thus the interplay of the entrepreneur's perceptions of the British opportunity structure and their agency in using an accelerator to tap into those opportunities is witnessed here.

Second, it was found that eight of the migrant entrepreneurs interviewed no longer have their headquarters in the UK, and/or no longer live in the UK full time. In most of these cases, it was mentioned that while they were initially based in the UK, they now simply had general 'presence' in the UK, and commuted when needed. This presence was mainly for the purposes of keeping potential alliances open for the future. These entrepreneurs have either moved back to their home countries or have set up headquarters in third countries. To highlight this, we once again go back to the case of Alexander and his cofounder. After their move to London, they eventually moved to one of the cofounders' home country in Europe soon after the accelerator programme was over, moving on once again beyond Europe after that.

'Everything would be okay if we lived there for another 6 months, but living in London for 6 months needs funds. And that is impossible if you do not have a family with someone to stay which is really expensive. (Alexander, entrepreneur from within the EEA)

Or take the case of Ed, also an entrepreneur from within the EEA, who moved to the UK with his business, but did so strategically with an accelerator making the move easy, and with no intention of personally committing to the country.

'So we originally set up in (home country) because that's where I am originally from. What we did was we took part in an accelerator in London in 2015 and through that we established headquarters in London. So now we are both in (home country) and London where most of the team sits in (home country) and I travel back and forth, when I need to spend time with the team I am in (home country), and when I need to spend time with potential clients I am in London. Most of our clients are still in (home country)'. (Ed, entrepreneur from within the EEA)

The cases of Andrew, Alexander and Ed, represent entrepreneurs who are not bound by location and who have used accelerators strategically to take advantage of new markets. While Alexander is a footloose migrant with no attachment to either home or host country, Ed has a weak attachment to the country of destination, but nevertheless keeps a foot in both lands, without permanence in either. But in both cases, what we see is a case of migration without actually migrating. And in both these cases, policy is not influential, however, business accelerators are still enabling this 'migration' and making these moves easier, once again, creating a transnational social space within which these entrepreneurs operate.

Third, there was evidence of three migrant entrepreneurs joining accelerators specifically to explore opportunities beyond the UK. One entrepreneur joined an accelerator in a third country and set up base there, and two entrepreneurs joined global accelerators in the UK with the specific intention of leveraging their ties so as to

eventually move elsewhere. Reggie, for instance, is an entrepreneur from within the EEA and who was already in the country, but wanted to be in the US. He applied to accelerators in the US twice, but failed, then decided to join a British accelerator when he was scouted by them, but with the explicit intent of being able to move to the US eventually.

"...we want to move to the US and Accelerator X (accelerator used in the UK) is very big in the US and so we wanted to have a network of alumni where when we go to the US they sort of know that we are in the top one per cent of startups." (Reggie, entrepreneur from within the EEA)

This strategic decision is a significant finding when considered in light of the fact that four of the seven accelerators whose 'seed competitions' are endorsed by the UK government as visa 'sponsors' also run programmes internationally (*Wayra, Techstars, Collider, Entrepreneur First*).

Fourth, out of the fifteen British entrepreneurs interviewed, two no longer lived permanently in the UK at the time of interview. Both used a second business accelerator to make that move abroad. In these cases business accelerators were used to move to either a country with a more profitable market or to a country where it would be cheaper to operate. However, the moves were only formally made on a full time basis once acceptance onto the respective accelerators was gained. Kevin, for instance, joined an accelerator programme in the UK for the money. However, he desired to be in another country where he believed it would be easier to manufacture. As the move would be difficult due to complex visa regimes, and lack of networks, he applied to an accelerator there that was working in the same sector as him. He now operates from this other country. Accelerators therefore proved to be easy stepping stones into new markets, be it the UK, or abroad.

'We had already been accepted by Accelerator Y when we were still new to Accelerator X's programme... we didn't really spend much time at Accelerator X, we didn't even go to Demo Day... but it was good to have the brand, and the cash was really helpful as well.' (Kevin, entrepreneur from the UK)

This highlights once again that these entrepreneurs did not search for countries per se, but rather the country with the best accelerator that accepts them. Therefore, what is seen once again is the interplay of the tech entrepreneurs' (irrespective of migrant status) perceptions of the global opportunity structure and the 'agentic' use of business accelerators to operate on a transnational scope.

This needs to be further put into context with the entrepreneurs' migration histories prior to moving to the UK. A substantial number were based in third countries at some point in their entrepreneurial and non-entrepreneurial lives. While only one British entrepreneur was based in another country prior to joining the accelerator in the UK, entrepreneurs from the EEA were either based in their home countries or in the UK (equally split but with a couple of exceptions who were based in third countries) immediately prior to joining the accelerator in the UK, but more importantly, it is interesting to note that none of the entrepreneurs from countries beyond the EEA were based in their home countries before joining the accelerator in the UK.

Table 4.2 – Location previous to joining the accelerator

Location previous to joining accelerator	Non- EEA	EEA	British
Total	14	16	15
Home	0	7	14
Other	6	2	1
UK	8	7	

Thus, in summary, what this underscores is the creation of a new form of transnational entrepreneurship where entrepreneurs rely on business accelerators to make

connections rather than diaspora based linkages to conduct business, and along the way, build connections and set up offices in the countries they migrate to. This bypasses existing notions of transnationalism where they move on and on rather than back and forth (Liebelt, 2008). This 'accelerator hopping' highlights how business accelerators open up the opportunity structure for high skilled entrepreneurs. Therefore, while the accelerator might be a successful tool to attract and select entrepreneurs, the profile of these highly skilled serial 'accelerator hoppers' begs awareness to the fact that accelerators are not limited to a national opportunity structure, but to a global one.

4.5 Conclusion

The evidence presented in this chapter strongly suggests that business accelerators are used by a class of highly skilled entrepreneurs whose similarities are based more on the sector that they operate in, i.e., tech, rather than their migrant status. The chapter highlighted how the entrepreneurs perceive the global opportunity structure, and how they use their agency to strategically use these accelerators to access global opportunities. Irrespective of nationality, a key finding is that while market was important, the accelerator was the final clincher for many.

Since this is a trend where the main purpose of migration is entrepreneurship, with no guarantees of permanence, the need to underscore the transnationalism of this migration becomes relevant as well. This chapter underscored how the migrants were not limited to a national opportunity structure, but rather a global one. Irrespective of whether they may have wanted to permanently migrate to the UK, or elsewhere, or no place at all, the entrepreneurs were strategic in the use of accelerators to tap into opportunities that existed beyond their local reach. Accordingly, evidence was provided which pointed to

entrepreneurs using business accelerators in third countries, both before moving to the UK, as well as after to make their moves there. Thus, in an era when one's passport determines ones international 'freedom', business accelerators allow these highly skilled and highly sought after tech entrepreneurs to create international networks and tap into global markets without a migratory commitment, highlighting a new factor in promoting the modern day transnationalism among a 'new and still exceptional breed' (Portes et al, 1999; 218) of entrepreneurs. The next chapter will investigate the specific purposes for which accelerators were used and how they used these programmes to their economic advantage.

Chapter 5: Business Accelerators and Access to Resources

5.1 Introduction

This chapter looks at the ways highly skilled technology migrant entrepreneurs mobilised and converted capital, and demonstrates how this access was facilitated with the use of business accelerators. The previous chapter studied the ways the entrepreneurs charted their migration with business accelerators which are part of the global opportunity structure. It therefore revealed that for a number of entrepreneurs, the presence of accelerators was the reason for moving to the UK. This chapter takes that forward and focuses on the different ways they mobilise investment and networks to help launch and grow their businesses. As Kloosterman (2010) puts forth, the opportunity structure, i.e., accessibility of markets, is shaped by the individual's access to resources. The opportunity to operate a business only arises if the market for that product or service also exists, and the accessibility of these markets is dependent on the resources that the entrepreneur also has access to. This chapter will therefore establish that the idea of joining a business accelerator is a strategic decision based on its resource advantages. However, since the entrepreneur is still at the heart of the mixed embeddedness theory, with the level of human capital that the entrepreneur possesses being directly related to the growth potential of the business, the chapter starts with highlighting the high level of skills, i.e., human capital, that the entrepreneurs require to take advantage of the opportunities afforded by the accelerators.

On a basic level, with the exception of the Sirius programme's pilot programme, business accelerators have been offered by migration policy in the UK as a 'seed competition'. Thus, the chapter then looks at the ways the business accelerator factors

into the entrepreneurs' financial mobilisation strategies. Business accelerators nonetheless, offer a full package of support, which then leads to discussing how accelerators provide valuable social capital.

However as this chapter will show, for entrepreneurs, gaining financial capital is part of a larger process of capital conversions. This is further emphasised in the final section, the focus being on some of the enhanced returns entrepreneurs benefit from in accessing other resources. To do so, this chapter uses Bourdieu's (1986) 'forms of capital' as it is a useful analytical tool to draw attention to resource mobilisation by migrant entrepreneurs as well as to study the ways business accelerators factor into the process. What this chapter will show is that this is a concrete mechanism through which relatively abstract policies are translated into resources/capital; and accelerators themselves impact on the availability, combination and form of capital used. This chapter explores two aspects – first, how resources/capital has changed for the high skilled migrant entrepreneur with the growth of technology, and second, it examines how entrepreneurs draw on business accelerators to mobilise different forms of capital.

The figure below highlights the additional links this chapter makes to the analytical framework.

Transnational Level Institutions, i.e., the organisation of the markets, the welfare system as well as policies and regulations supporting innovation Opportunity Structure
--MESO MACRO The High Skilled Tech Migrant Entrepreneur Business Accelerators Resources/ funding [financial capital], support systems, culture of support [social capital], access to workforce, education and training, universities which serve as catalysts [human capital] -- MICRO Entrepreneurial Activity and High-tech Migrant Entrepreneurship

Figure 5.1 -- Analytical framework: access to resources

5.2 Human-Cultural Capital and Training Opportunities

Human capital refers to the full bundle of attributes an individual possesses. This includes everything from an individual's personality and habits to background and skills. Cultural and human capital tend to be used simultaneously to denote both experience and education of the entrepreneur, and Bourdieu (1997) embraces both these factors into his definition of cultural capital. In its institutionalised form, cultural capital bears resemblance to human capital, therefore, the term 'human-cultural' capital has been used, since human capital is also more easily measured than cultural capital alone (Nee and Sanders, 2001; Ram et al, 2008; Vershinina et al, 2011). Due to high

levels of skills required to operate in tech, this is the one capital that all the entrepreneurs in this group could bank on.

Table 5.1 – Educational qualifications of the interviewees

Education		Non- EEA(14)	EEA (16)	UK (15)
Highest Degree Obtained	Undergraduate	2	9	10
	Postgraduate (Taught)	8	6	2
	Postgraduate (Research)	4	1	3
Studied in the UK		9	6	15

The high level of skills that the entrepreneurs possess has been represented in Table 5.1 above. All entrepreneurs had a minimum of a Bachelor's Degree, with a substantial number of entrepreneurs possessing Masters Degrees as well. Furthermore, seven entrepreneurs had PhDs, with three being from outside the EEA, and one from within the EEA. Out of the fourteen non-EEA entrepreneurs, only one entrepreneur claimed to not have any background at all in technology/product building. As mentioned in the methodology chapter (Chapter 3), the non-EEA group as a whole had higher qualifications than the other groups, reflective of selective migration policies, making education a necessity for those disadvantaged by global migration policies.

However, this also potentially highlights a perceived need by migrant entrepreneurs to be well versed in their field or develop 'a full skill set' before embarking on the 'risk' of starting a business as a migrant in another country. This perceived risk was noted in the entrepreneurs' strategic use of accelerators to migrate to another country, as underlined in the previous chapter (Chapter 4). Thus, in order to utilise the opportunities afforded by the accelerators, the entrepreneurs needed the right amount of human capital.

Accordingly, the other benefits provided by the colleges/universities that these highly skilled entrepreneurs utilised cannot be overlooked. Since a number of entrepreneurs studied in the UK, university linked incubation centres were also casually mentioned by a couple of entrepreneurs from each of the three groups. However, the value of the university incubator appeared to be diminished when considering their entire journey, and was merely seen as a low cost office space.

This makes the idea of accelerators that speedup the process noteworthy, as comparative research on incubators and accelerators by Cohen (2013) has already established. As such, even though university incubators do not take equity in exchange for support, the training opportunities accorded by business accelerators led nine entrepreneurs from within and outside the EEA to nevertheless use non-equity business accelerators²⁴ instead of incubators in their home countries or third countries before moving to (or moving back to) the UK with a second accelerator. They relied on them specifically for initial guidance and product development. Accordingly, even though accelerators may be referred to as a new form of an incubator (Isabelle, 2013), all evidence pointed to business accelerators in general being the preferred choice for knowledge creation, product development and general entrepreneurial advice for these entrepreneurs. For Gus, the need for an accelerator was clear, which led him to apply to an accelerator in his home country. However, despite all his needs not being met, the belief that a good accelerator would help him, led him to take up an offer to join a further accelerator when scouted.

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²⁴Non-equity accelerators do not offer capital, therefore do not charge equity. They are not non-profit either. In exchange for the services they provide, they might sometimes make stipulations such as taking on an intern from their internship programme or agreeing to take an office in their building after the programme. They also sometimes charge a flat programme fee instead. Examples include Mass Challenge and Microsoft Accelerator.

'Mostly they were two things, networks, because we had none in terms of entrepreneurship. And second was guidance. When you come from building a product or building a team, and you starting your own company, there is a lot of things that you do not know, so you need guidance and support... with Accelerator X they didn't (meet our expectations), they had a very good network, but they lacked on the guidance side. With Accelerator Y, they didn't have a great network but the guidance was great. So somehow they balanced each other. But Accelerator Y had a bigger impact on us than Accelerator X. Because we were getting a lot of move with our product because of the guidance, the little network that we had, helped us to do a lot more with it.' (Gus, entrepreneur from outside the EEA)

This optimism that the accelerator could be an adequate substitute for all their needs therefore cannot be ignored. The 'boot camp' aspect of the accelerator was looked on by some as a tool as well as a quick fix to all their problems, whether immediate, or distant, and potentially an ideal substitute for all kinds of resource mobilisation. Anthony, an entrepreneur from within the EEA, had used four accelerators to help with his startup. He has been quoted in the previous chapter where the role of the accelerator in his move to the UK was highlighted. However, acceptance onto his first accelerator in his home country helped him take the plunge from full time employee and part time entrepreneur to full time entrepreneur, as he felt assured that the time spent at the accelerator would not be wasted and would provide him with the knowledge needed for high growth at an 'accelerated' pace.

"...then there was a point when we said 'ok let's try to do it as a startup', which meant we could ask for external capital, we would be accelerated, we would build it in a different way than the organic way only and we would scale it quickly to get as much from the market as possible'. (Anthony, entrepreneur from within the EEA)

The Kloosterman (2010) refinement of the mixed embeddedness theory argues that accessibility of markets is based on both the human capital of the entrepreneur, and the 'growth potential' of the business, the combination of which generate four typical openings in the opportunity structure, i.e., vacancy chain openings, stagnating high

threshold markets, post-industrial/low skilled and post-industrial/high skilled markets. This thesis argues that business accelerators are part of the opportunity structure of the expanding post-industrial/high skilled markets. Accordingly, this section highlighted that on the one hand, the perception that the accelerator would increase the entrepreneur's human capital through their specialised knowledge of high growth startup acceleration is noteworthy, however, on the other hand, what was also noted was that to be able to utilise the opportunities provided by the accelerator, the entrepreneurs needed to be in prior possession of high levels of human capital. Thus, while it is impossible for migrant entrepreneurs to take advantage of the opportunities afforded by the accelerator without already being in possession of certain capital, banking on one's human capital is part of a wider range of conversions. The sections below will build on that.

5.3 Financial Capital and Seed Funding

Understanding how entrepreneurs mobilise financial capital is of particular importance for both, migrants as well as all entrepreneurs, working in high-tech (for e.g., Bruton and Rubanik, 2002; Smallbone et al, 2003). For migrants, existing research highlights the problems associated with gaining investment due to factors of discrimination and lack of credibility in a new land (Tseng, 1997; Jones et al, 1994). For the highly skilled migrant however, finance takes precedence over other capital, as migration policy often attaches financial conditions to visas and settlement²⁵.

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²⁵Migrant entrepreneurs need to show evidence of having raised substantial amounts of funds through institutionalised sources to get a Tier 1 Entrepreneur visa. They also need to generate revenue in order to create local jobs, to then be eligible for visa renewal.

Ordinarily, migrant entrepreneurs invest in their business through a range of formal and informal sources, from bank loans to personal resources and gifts (Smallbone et al, 2003). But due to the fast growth aspect of the high-tech firm, entrepreneurs tend to try and find maximum investment through external sources (Nouira et al, 2005). Conversely, it is for the very same reason that gaining external investment is a tough process. Even so, options today for entrepreneurs are more prevalent, and according to Mason, a British entrepreneur, have 'increased substantially over the past two to three years in the UK.'

The findings suggest that for many entrepreneurs, their venture started out as a pet project. However, once the idea was suitably developed, the next step was to take that plunge forward and move onto a full-fledged business to get funding. One factor that differentiates different markets' access is the nature of resources available. Sources of funding that entrepreneurs used prior to joining the accelerator included personal savings, family and friends, angel investors, and government bodies. However the actual numbers under each category is what proved surprising. Personal savings or capital from family and friends, while common for traditional entrepreneurs, was not an option for tech firms that require higher level resources.

Personal savings was mentioned by nine entrepreneurs in all. However, only two entrepreneurs from outside the EEA mentioned their own personal savings as a substantial investment in starting-up their ventures. This is in contrast to established findings in the literature on migrant entrepreneurship where personal savings, when available, play an important role in their entrepreneurial journeys (Ram and Deakins, 1996). Although it must be noted that there is lack of consensus on the degree to which this differs between, and within, different minority groups (Smallbone et al, 2003). Additionally, in the literature on startups as well, studies suggest that personal savings

are a vital source of startup funding (e.g. Carter and Van Auken, 2007; Cassar, 2004), with Conti et al (2013) arguing that business angels are unwilling to invest in entrepreneurs unless the entrepreneurs themselves have invested their own money. Nevertheless, these findings in this study do have a degree of bias if it is considered that business accelerators (through which all the entrepreneurs have graduated) are promoted by policy as a substitute for entrepreneurs who do not have substantial personal funding.

This change in trajectory in migrant entrepreneur funding substituting traditional routes, is in line with entrepreneurs from the UK as well as from within the EEA, with only seven other entrepreneurs having mentioned personal savings. Moreover, even for those that mentioned it, their reasons for using personal savings were so that they would not have to raise finance through the 'regular routes'.

'We reached out to people and had the option to raise (finance)... we decided not to raise because the cost of capital was too high and we could generate most of it with sales so if you look at the opportunistic cost of dealing with investors and the cost of servicing that investment... we decided not to take on that investment.' (Ian, entrepreneur from within the EEA)

For those few entrepreneurs that chose not to raise seed funding, business accelerators were the only external finance they received by default, as the funding offered was part of a wider package of support. Thus, the business accelerator is seen to influence the way all the entrepreneurs in this study, not just the migrant entrepreneurs, mobilise resources. Accelerators work just as traditional investors, taking equity from the entrepreneurs, yet it might be noted that they are viewed as being different from the rest due to the bundle of resources that they offer as well. Reggie, for example, had a dual purpose for joining an accelerator. The first, as highlighted in the previous chapter, was

to move to the US. There was however a clear overlap with the overall perceived attractiveness of the concept of an accelerator as a whole.

'And the advantage of a group like Accelerator X is that they accelerate. So imagine you go through about nine months with something where you need to figure out what you need to do. So in the past the task took me about nine months. With Accelerator X the advantage was that instead of taking nine months and pay for it with our money, we would receive 120,000 dollars and would be through a programme where we could explore this in a fraction of the time.' (Reggie, entrepreneur from within the EEA)

Funding received from friends and family was also mentioned in the data and is known to be an established form of pre-seed funding (Graham, 2005). But this was mentioned by only one non-EEA entrepreneur in terms of financing their projects. When probed on the role of friends and family in the business, common answers were 'moral support' and 'word of mouth publicity'. This is also in stark contrast to existing research on migrant entrepreneurship where informal forms of financing abound (e.g., Yoon, 1995; Bates, 1997; Yoo, 1998). However, this is in line with Kushnirovich and Heilbrunn's (2008) findings that also surprisingly show that migrants had less of a track record of financing their businesses via family and friends compared to natives.

For Maria, who is from a non-EEA country and moved to the UK to study, her first funder was the accelerator at the pre-seed stage. Her quote shows the reasoning behind choosing not to finance high-tech firms via personal networks when institutionalised forms of early stage money, i.e., business accelerator pre-seed funding, are now more easily available.

'So you better not ask money from your family 'cause you do not want to get them in trouble, you better not get money from friends and get into personal debt.' (Maria, entrepreneur from outside the EEA) This must be considered with the fact that with business accelerators being touted as 'pre-seed funders', receiving funding from an accelerator at the very onset, quickly helps establish a market valuation of the company. This is more beneficial for attracting VC funding, whereas friends and family funding is only valuable for attracting business angel investment (Conti et al, 2013).

A last source of funding that was mentioned was that of business angels and venture capital. For those entrepreneurs who did raise this, with a couple of exceptions, they were mostly able to do so directly after the accelerator, rather than before. A crowdsourced document floating within the British startup community which I found after months of being immersed into the startup scene, lists over 500 angels, 100 VCs and 20 angel groups in Europe²⁶. However, gaining VC funding is highly competitive, with higher degrees of human capital, enjoying higher chances of success (Dimov and Shepherd, 2005). VCs are also often reluctant to invest in early stage businesses that have not yet proven themselves (MacMillan et al, 1985). Therefore, business accelerators become a viable option for very early stage entrepreneurs, when venture capitalists and other institutional forms of finance are not easily available.

But what is key here is that business accelerators themselves can essentially be called 'early stage' funds. There are different types of accelerators but they are all mostly founded by entrepreneurs with the backing of a network of angel investors. In this study, out of the seven business accelerators linked to the Tier 1 Visa and from where the sample population graduated, only one was corporate backed. Essentially, accelerators themselves invest in the firms at two stages. One is upon acceptance, and the next is once the firm completes the programme. The prospect of large scale follow-

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 $https://docs.google.com/spreadsheets/d/10S7_jBpRoWuNMnOYpkjFJArt76dPhFw0tIR7E\ ndgnk/edit\#gid=0$

on funding directly from the accelerator however was not a consideration for any of the entrepreneurs until after they completed the programme.

'We haven't had follow-on funding from them (the accelerator). We didn't ask them to either. We are waiting for a bigger round which will be at the end of the year. But we will probably have a percentage from them. So they have a right to, what is called pro rata which is to keep their percentage. I think they will probably exercise that. Then we will see if we will let them take more or not.' (Roger, entrepreneur from within the EEA)

What was an important influencer though, is the immediate cash infusion that business accelerators could offer. Despite the equity that accelerators ask for, evidence pointed to the fact that there appears to be a change in trajectory as for a majority of entrepreneurs interviewed, accelerators were the first points of contact into the larger financial world.

'We had been developing the product for 2 years, and when we thought we were at the place where we had something good, we applied to Accelerator X in December, so a month before incorporating the company, and incorporated it just to get money from Accelerator X.' (Grant, entrepreneur from within the EEA)

For the small number of non-EEA migrant entrepreneurs who used the Tier 1 Entrepreneur Visa, substituting the traditional financing route actually boiled down to visa restrictions, irrespective of whether the entrepreneurs also chose the accelerator for other reasons. But substituting other financial resources was an active choice for the rest, who were either on the Tier 1 Graduate Entrepreneur Visa or a variation of a spouse visa, neither of which attach any financial conditions to stay or set up a business. Nevertheless, for the Tier 1 Entrepreneur Visa, immigration policy dictates that one of the ways to get a visa is securing funding from venture capital or seed competitions that are government approved. Funding from friends and family, and

other unofficial sources, though might help the entrepreneur on a practical level, proves useless for entrepreneurs needing visas to make the move to the UK. On the other hand, that very policy requirement hints at the uncertainty of the entrepreneur's permanence in the country, leaving migrant entrepreneurs already in the country on shaky ground, especially when seeking investment. For example, Jay, was on a two year post-study work visa, but still had a year left when he launched his venture. To get a visa to stay back in the UK with his venture, he needed to have either the higher amounts of personal funding, or lower but still substantial amounts from an approved source. His first real investor ended up being the accelerator, from where he then went on to find further investors.

'And there came a point where no one wanted to give me any money because they thought I would not meet the target and would get kicked out of the country. So that made it very awkward.' (Jay, entrepreneur from outside the EEA)

Finally, it must be noted that even though ventures gain funding by entering an accelerator, entrepreneurs have to forego a stake in their firm to the accelerator. Therefore, to gain other benefits of the business accelerator, financial capital has to be converted so that it might eventually lead to further gains. Even though the financial loss takes place later, entrepreneurs make a voluntary decision to give up equity, i.e., financial capital, so that they may gain other forms of capital that is valued more by them. This is contrary to simply choosing to gain funding via a VC or an angel investor, who might not always be able to provide assistance beyond the financial, even though the implication often exists (Sapienza et al, 1994). While this is often acceptable by native entrepreneurs, migrant entrepreneurs need to make wiser choices that will also help them navigate the foreign market that they are operating in.

Accelerators may be profit or non-profit, however all the seven government endorsed accelerators function purely as equity-based seed competitions, therefore, the decision to participate in an equity-based accelerator rather than a non-profit social accelerator that offers similar services is of particular importance when considering social entrepreneurs, or entrepreneurs that have ventures with social elements to it. Entrepreneurs with these ventures did not foresee generating revenue in the near future, but were more focussed on gaining a platform to get their message out and help people. Therefore, the decision to give up financial stake in their firms when other form of funding for social entrepreneurs is readily available, makes this conversion noteworthy as well. Joanna, for example, chose an equity-based accelerator instead of a social accelerator for strategic reasons.

'I was quite happy to give up some shares in the company as it proved that my product has value to other people.' (Joanna, entrepreneur from within the EEA)

This decision however is bound by policy requirements for those from non-EEA countries needing to raise substantial sums of money and generating jobs. This process of raising funds and giving up of equity in order to be able to create jobs quickly, especially when social and human capital is what they need more, is a policy necessitated conversion of financial capital. Therefore, when considering social entrepreneurs, it must be noted that this policy that focuses only on economic capital forces upon a market-driven perspective on a field of entrepreneurs who might have different needs.

Thus, it is clear that migrant entrepreneurs are substituting traditional modes of resource mobilisation to fund their ventures. While angel investors, friends and family, do invest even at the very early stages of a company, the entrepreneurs chose to get

their first funds from the accelerators instead. This may be viewed from two perspectives. On the one hand, business accelerators are actively being chosen by entrepreneurs irrespective of nationality and irrespective of migration policy as a substitute to other financial resources. On the other hand, it may be argued that the entrepreneurs were simply unaware of other sources of funding such as government grants (although not necessarily the case, as will be explored in the next chapter), or lacked information or access to other investors prior to the accelerator. Thus, what may therefore be strongly argued instead is that business accelerators do shape the opportunity structure that they are a part of, as entrepreneurs are actively turning to them irrespective of whether it may be an informed decision or an ignorant one.

5.4 Social Capital and Support Systems

Social capital, put simply, is the value accrued from which any exchange takes place, and any relationship that is formed. These relationships could be formal, informal, or even cursory. Essentially, through every human interaction, a relationship is formed. However, according to Bourdieu (1986), the amount of social capital a person possesses depends not just on the volume of those networks but also on the amount of capital those networks possess.

Just like financial capital, the findings of this research suggest that these entrepreneurs chose to ignore actively looking to forge social connections, or chose to do so in 'easier' ways instead, indicative of the nature of the tech sector where social interactions increasingly take place online.

Evidence pointed to some entrepreneurs joining or accessing online 'communities of practice', however, the number was relatively low. By and large, social media was said to be used to market their products, and occasionally LinkedIn, to advertise positions. All groups however mentioned their inclination for offline connections, with the preference to build their connections through tried and trusted networks. However understandably, native entrepreneurs, and in a small way migrant entrepreneurs who completed their tertiary education in the UK, had an advantage there. The following quote is a typical response for a number of entrepreneurs where the value of online networks is seen more as pre-established human capital, rather than social capital that requires active participation from the entrepreneur.

'I don't participate in or observe any online forums, but often when I need a question answered, I will use Google and that may lead to a Reddit, a Sub-Reddit, or a number of other startup forums to get an answer, but beyond that, no.' (Andrew, entrepreneur from beyond the EEA)

However, there was evidence of entrepreneurs from at least one accelerator receiving access to a 'Slack channel'. Anyone who applied to this accelerator could gain access to this global pool of select entrepreneurs, including those that did not make the final cut. This was cited as being an exclusive privilege, and a better online community than 'generic' ones. This brings into focus the fact that business accelerators can be said to create a valuable community of practice, shaping the opportunity structure by slowly taking away the need to rely on any other 'community'.

This highlights two key inter-related factors. First, where social platforms have moved from the offline to the online. Online communities are worth the discussion due to the potential benefits they can offer when considered with tech entrepreneurs' nomadic lifestyles. On personally navigating through the online startup 'scene', the sheer

number of communities of practice/support groups for tech entrepreneurs found, was overwhelming. For example, a closed exclusive Facebook group for London startups has around 30000 members, growing stronger by the day, and with similar support groups existing for startups in Manchester and Birmingham. And blogging communities and other forms of formal and informal networking groups abound. And the second factor is the need to understand the support landscape of the host country. Migrants no longer have to rely on ethnic capital or community based transnational groups (Saxenian, 2002) to gain any kind of competitive advantage. This underscores the importance of communities of practice that are instead created in the technology sector. And the business accelerator 'community' that is created is indicative of this.

Nevertheless, there was evidence of entrepreneurs attempting to access offline support. The findings show that typical events that entrepreneurs attended were those held by entrepreneur networks; private companies such as Virgin which is known for actively promoting entrepreneurship; shared workspaces trying to promote their offices or present their residents to the larger community; 'hackathons' (a 'marathon' of collaborative computer programming to create new innovations) held by large corporations and small groups of individuals alike; and government sponsored startup events and 'mini-programmes'.

However, amongst all the networking events that they attended, hackathons were the only forms of social networking that migrant entrepreneurs mentioned as having benefited from. It was at these events that four entrepreneurs who were already in the UK met their cofounders, and it was here where they were either scouted by accelerators or first learnt of their existence. Hans, for example, who hails from a non-EEA country and was working in the UK, found his cofounder at a local hackathon

where they collaborated on a challenge, and converted his idea to a feasible concept.

That attracted an accelerator director also present at the event.

Nonetheless, an issue with network building in the tech sector cited was that 'real' connections cannot be made at generic events, as the numbers of entrepreneurs are growing by the day.

"...as (a reputed VC director) said once most, he did a lot of these startup events, he said most of the startups who come to his events are borderline alcoholics, so what I'm saying is a lot of time I wasted there' (Ian, entrepreneur from with the EEA)

Only a few people at these events can truly help entrepreneurs, while others are resource providers trying to sell their services. This meant that entrepreneurs learnt the hard way to substitute traditional tech networking. Other than hackathons, networking events in general were not something they favoured, but still 'made an effort to attend' in their early days. There was some (albeit limited) evidence of entrepreneurs joining professional organisations within their industry, but the benefits they claimed to receive were minimal. Moreover, networking required effort, and as was mentioned by Keanu, a migrant entrepreneur on the Tier 1 Entrepreneur visa, with only a three year validity, 'you have to put a lot in to get something out', and therefore viewed as a waste of time. Therefore, business accelerators with pre-planned organised schedules, allocating specific times to speed-networking events, seminars and the like, not only made more sense for migrant entrepreneurs, but also for local entrepreneurs.

'I like structured programmes better like accelerators than loose networks of networking. Because what ends up happening is you end up in this place where there are all these people who try to sell you stuff and there is always people trying to sell stuff to somebody, but none of them have any money.' (Jay, entrepreneur from outside the EEA)

There were no marked differences between the three groups of entrepreneurs, but this more or less depended on whether the entrepreneurs were already in the country, what they were doing in the country prior to starting their business, or whether they moved to the UK with the direct support of an accelerator. This is indicative of the level of support an entrepreneur already has in place at the time of starting a venture. And that is why the growth of business accelerators is important especially for migrant entrepreneurs who lack the same level of support and awareness about the entrepreneurial landscape of the host country, with the presence of an accelerator being seen to be a main attraction for moving to another country.

Finally, in addition to traditional social capital in the tech sector, there was some evidence of 'ethnic capital', however evidence also pointed to the fact that it was not actively engaged with. Capital such as ethnic solidarity and familial bonding have often been linked with migrant entrepreneurs (Greene and Chagnati, 2003). The minimal engagement underscores the role of the accelerator in changing this dynamic.

Table 5.2 – Use of 'ethnic' social capital

Evidence of 'ethnic' social capital	Non-EEA	EEA	UK
Family Members as cofounders or employees	1	2	4
Cofounders with similar ethnic backgrounds	3	7	15
Professional home country connections	0	8	15

First, seven entrepreneurs in all, started their business with either their spouses, siblings, or other family members as cofounders. From these, only one entrepreneur was from outside the EEA, while two from within the EEA. Beyond this, familial support that was mentioned was attributed to being informal. Extensive research exists on the role of family in a migrant and migrant entrepreneur's life, such as introductions

to employers, serving as unpaid labour, or offering connections to wider networks (Nee and Sanders, 2001). However in this study, this was mentioned mostly in terms of the general supportive nature of parents and spouses enabling them to venture out on their own instead of embarking on or continuing with paid employment. Second, there was evidence of preference for business associations with people from similar ethnic backgrounds, but the engagement was mostly limited to operations in the home country. Except for three out of fourteen, all the entrepreneurs from outside the EEA cofounded their firms with individuals from diverse nationalities, as is indicative of their diverse migration histories mentioned in the previous chapter. And furthermore, there were no home country connections with any of the non-EEA entrepreneurs, bar one, who ended up manufacturing in the home country via advice from the accelerator in the UK. There were some entrepreneurs from within the EEA who had bases in their home countries, but their hiring of employees from their own countries was limited to only staffing those offices. With respect to hiring employees in the UK, migrant networks, such as contacts gained via participation in ethnic associations, did not play a role here. If hiring did take place, it was usually either via internship programmes offered by universities²⁷, the occasional job board or social media platform, and in two cases, accelerator networks, which was done through their 'Slack Channel', whose use has been mentioned earlier.

For the entrepreneurs here, knowing the right people was crucial. However, with entrepreneurial networking being disliked due to the nature of traditional networking

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²⁷ With regards internship programmes, there are certain organisations that collaborate with universities to place interns at different startups, but there are also some universities' career services that actively approach startups. However, these were temporary, mostly unpaid hires.

opportunities on offer, as well as time constraints, these entrepreneurs had to find a way around it. And, that once again, is where accelerators come in.

'I wanted access to business networks; I wanted access to investor networks... So hitting the ground running was important and networks were critical for me.' (Ron, entrepreneur from within the EEA)

In summary, what is seen is not a total dismissal of trying to create social networks but a natural process of realising the benefits of the accelerator, and then subsequently, accelerators being chosen as a quick and easy way of eliminating some of the problems that were faced when trying to physically mobilise social capital. Considering the time they had to spend on networking events, joining an accelerator meant they could refocus their energies and get easy access to networks without wasting time on it. Thus, the value of the accelerator as a social resource was not dependent on nationality, but on the entrepreneur's background, and the temptation of being able to bypass the 'hurdles' of regular network building, whereby the overwhelming nature of networks of information out there led entrepreneurs on the search for more specific ones.

5.5 Upshots of Accelerator Resources

The previous sections highlighted how entrepreneurs substituted traditional forms of resource mobilisation with accelerators. To further highlight the ways business accelerators factor into the larger resource mobilisation picture, this section identifies some of the abstract processes through which the accelerators provide 'enhanced returns' to the entrepreneurs on their human capital. These are essentially upshots, or by-products of accessing resources afforded by the accelerators and the larger conversions of capital thus created.

As stated earlier, joining an accelerator requires banking on one's skills. However, this allows migrant entrepreneurs to further convert their human capital. Attending a business accelerator, which in most cases is highly competitive, provides entrepreneurs with credibility. This credibility enables them to convert this 'legitimised' and 'recognised' form of capital, i.e., symbolic capital (Bourdieu, 1986), to social capital which they then convert to financial capital.

To start with, it helps vet the entrepreneur and the quality of his or her venture. It provides the entrepreneurs with 'quality assurance', as simply being accepted onto a competitive programme gives ventures a leg up. The very fact of being selected from a large pool of candidates signifies that the venture has higher growth potential than its competition. The status attached to then being part of that 'exclusive group' is noteworthy. Prior 'certification' helps assess a hard to quantify factor such as quality. The characteristics of this 'third party certification' (in this case the accelerator), serves as an indicator (Polidoro, 2013; Drover et al, 2017). Thus the 'legitimation' afforded by the reputation of the accelerator alone can be enough to mobilise further social capital.

'What was very useful to me is to have investors in to meet to see that we were part of a movement, part of something edgy and cool...' (Jay, entrepreneur from outside the EEA)

Second, since the entrepreneur benefits from all the resources that the accelerator has to offer, it gives the appearance to outsiders that the entrepreneur's venture is on the fast track to development. Since accelerators speed up the development of the venture, as mentioned, firms are in any case organised much quicker with either prototypes or developed business ideas, so they are then in a position to make further meaningful connections.

Third, going through an intensive programme is a sign of endurance, a trait which VCs often look for in entrepreneurs (MacMillan et al, 1985).

Further, it may be noted, that the degree of 'hurdles' that entrepreneurs have to go through to get into the accelerator is on par with the obstacles on the venture capital route as well. This is because business accelerators work in similar ways as VCs, where entrepreneurs go through several rounds of selection, followed by intensive negotiation of terms and conditions. For entrepreneurs who are new to the country, this additional symbolic capital that they can gain with a business accelerator, makes these accelerators the smarter choice.

Using a business accelerator, however, does not always mean that venture capital firms and angel investors are completely ignored by migrant entrepreneurs. Alternate investors are often elusive and unwilling to speak to entrepreneurs who do not have an established presence in the country. Thus the findings suggested that business accelerators were used to gain a platform, gain more credibility, and then reach out to investors, thereby converting their financial capital to symbolic capital, which is then converted to social capital. The initial funding that the accelerator provides also increases the public valuation of the firm, which in itself works as an 'accreditation' of the entrepreneur, thereby making others more willing to invest in the entrepreneur and his/her venture.

'If a VC hears about you, that's always good, but for the most part they don't, so you kind of have to hustle the meeting. So it is much longer and much harder than when you are at Accelerator X.' (Grant, entrepreneur from within the EEA)

Evidence showed that a key reason for making social contacts was to gain access to investors. This aim of networking was mentioned by almost all entrepreneurs

interviewed with the exception of five entrepreneurs, two from within the EEA who had chosen specifically to not 'chase funders', and three social entrepreneurs with different nationalities (one from outside the EEA, one from within the EEA, and a third, from the UK). This has already been touched upon earlier, where the exchange of equity is considered a voluntary decision to gain social ties to investors, thereby potentially changing that new formed social capital, once again to financial capital.

However, this conversion might be deemed a long term process. Venture capitalists look for entrepreneurs with traits such as being able to react well to risk, capable of long term intense effort, and thorough in their knowledge of the market (MacMillan et al, 1985). Exploring multiple markets at the same time is fraught with difficulties. Just as migrant entrepreneurs use business accelerators to enter the British market, accelerators around the world which work as intermediaries between different governments and the private sector, are attracting entrepreneurs to their shores. There was evidence of entrepreneurs tapping into multiple markets through these established 'institutionalised' social ties, thereby not only improving their revenue potential, but also being able to show future investors their 'preparedness' (Chen et al 2009) and passion (Warnick et al, 2018).

'It is very important for investors to see where we will go next and how big we will be. So it is very important for us to assess every market opportunity... With Accelerator Y (in a third country)... we realised that this is an area that has not been tapped and we saw that these guys were going to give us 40,000 US dollars to set up down there with no strings attached. So a. it is good for cash, but b. there is an area that is a virgin territory with nobody similar to us so we decided to take the risk 'coz we had the money to set it up... With Accelerator Y we already have based a relationship to launch at the right time. We know the market there, we know the people there, (and) we have got the connections with (the) industry.' (Oscar, entrepreneur from within the EEA)

This credibility thus gained, not only leads to further investors, customers and business connections, but onto corporate accelerators, which as evidence pointed to, were leveraged for strategic business purposes such as cutting costs and entering newer markets without the need to apply to new accelerators.

This credibility is best illustrated by the example of Ron mentioned in the previous chapter. He used an accelerator in the UK specifically with the purpose of moving to the US knowing that the credibility thus afforded ('they sort of know that we are in the top one per cent') would help make the migration easier. This is representative of accrual of symbolic capital which translates across transnational social spaces (Rodgers et al, 2018). The quote below by a British entrepreneur who utilised multiple accelerators also underscores this 'certification' that the highly selective nature of accelerators provide. Although the accelerators publicly claimed to be open to all ideas, from novices and experienced entrepreneurs, the interviewees also often voiced that they were scouted by other accelerators, other governmental innovation programmes, and other corporate accelerators globally once having been through one programme, which might be attributed to the credibility thus afforded. The choice to then, of course use the second one, is highly personal.

'You don't really apply to accelerators the second time. Once you've gone through it once, you are pretty much almost always invited.' (Stephanie, entrepreneur from the UK)

As hinted at above, the credibility afforded by the use of an accelerator also sometimes leads to partnerships with corporate accelerators. Corporate accelerators, often run by giants in industry such as Microsoft, Accenture and Cisco, mostly make available equity free capital, office space, connections, free supplies (software and equipment),

but more importantly, offer long term relationships with their extended networks, in exchange for the potential of continuous innovation that the startups might provide the corporation. Due to the long term tie-ups that corporate accelerators hope to make with 'new innovation', the entrepreneurs need to have prior 'vetting'. There was evidence that after their first accelerator, entrepreneurs from all three groups used further accelerators strategically, not government endorsed but established non-equity corporate accelerators, to cut both short term and long term costs. The example of Anthony who has been mentioned earlier in this chapter, however, underlines the tactical use of accelerators by an entrepreneur who is new to the country and has limited access to local resources, but who realised very early on the credibility that the accelerator afforded to leverage social capital. Anthony, who made use of accelerators to move to the UK because of his overall belief in the accelerator model, is currently on his fourth accelerator, the last two of which have been corporate accelerators.

'But now that we are with Accelerator Z, we can leverage their network to sell it. So we are now moving more into partnership and selling through their network. I'm not saying this will work... but it is a lot less time consuming...we strongly feel our next country will be Germany. What will be the precise timing difficult to say, but we will have to investigate. But we have something we can replicate, and we can grow there with Accelerator Z. So we are having a strategy. We know that this will work because of Accelerator Z and we know that we will expand the company 'cause of the geographic market.' (Anthony, entrepreneur from within the EEA)

Finally, a vital conversion of capital is that of the social to the human-cultural. As the entire tech 'scene' in the UK is developing, a wider community of practice has been created, which is a valuable asset to an entrepreneurial ecosystem as it highlights a culture of support (Isenberg, 2010; WEF, 2013). This makes it that much easier for others to enter the entrepreneurial world and navigate the resources that exist. It is furthermore indicative of the nature of the tech world as having less pronounced

boundaries than other sectors, where entrepreneurs are bound by knowledge rather than other factors. This relational learning creates a stronger network of entrepreneurs, with more people knowing what to do and not to do, and then passing on that information to others, eventually leading to a well-built entrepreneurial environment mutually beneficial to all (more on this in the next chapter).

'The more people you can help, the more people do better, because everyone shares in those successes... I have met a lot of guys, some have been massive successes and others have completely failed but you all share stories, you share experiences, you share contacts... If you help people, people will help you. I always go with the approach that I do not even care if they are in the same industry, if I can help them I will.' (Oscar, entrepreneur from within the EEA)

This is the exact same phenomenon that accelerators appear to be taking advantage of. By creating a 'hyper-local innovation system' built on convenience (Cohen, 2017), the benefits of this relational learning that appears to bind the tech community together becomes manifold.

Being a part of an accelerator helps migrant entrepreneurs interact with others who are going through the same experiences as them and have the same short term goal. According to Jonas, an entrepreneur from outside the EEA who specifically used an accelerator to establish himself in the UK,

'When you are with people doing the same thing, having the same experiences, making the same mistakes, the pain is not that much. That camaraderie helps.' (Jonas, entrepreneur from outside the EEA)

The spirit de corps thus created helps entrepreneurs learn from each other, which is an example of relational learning enabled by social links (Leitch et al, 2013; Pret et al, 2016), and therefore a conversion from social to human capital.

'As an economist said somewhere, these incubators are the biggest anonymous MBA that isn't mapped out. You meet so many brilliant people which would be impossible if you were stuck in a job somewhere.' (Ian, entrepreneur from within the EEA)

It potentially leads to easier access of information on tried and trusted lawyers, accountants, and opens up links to other clients and investors beyond those provided by the accelerator.

'It was very useful to be connected to people who were perhaps six months ahead of me and could give me tips on how to raise investment, what pitfalls to avoid, what lawyers to work with, what accountants to work with. Some of the regulations etc. just getting the admin out of the way is super important to your business'. (Jay, entrepreneur from outside the EEA)

In summary, two key indirect conversions of capital that the accelerator affords have been highlighted in this section. First, business accelerators provide credibility to the entrepreneur, i.e., symbolic capital which helps the entrepreneur gain further economic and social capital, which is not just at a national, but also at a transnational level. And second, despite the transnationality of the opportunities opened up, accelerators work at 'hyper-local' level based on convenience, whereby they help create a wider community of practice amongst the entrepreneurs attached to the programme which then enables them to learn from each other. Thus, by providing access to resources, at an abstract level, it opens up further opportunities which end up shaping a transnational opportunity structure rather than a national one.

5.6 Conclusion

This chapter has shown that for this group of entrepreneurs, the presence of business accelerators have clearly influenced their resource mobilisation strategies. Even though

a number of entrepreneurs were scouted by the accelerators, as the previous chapter highlighted, the eventual decision to use the accelerator was nevertheless strategic for all. The key reasons for joining the accelerator were -- the immediate money, the guidance, as well as the possibility of access to wide ranging networks. However, as the chapter has shown, while the entrepreneurs might use the accelerator for one particular reason, they convert this direct resource to other forms of capital.

The one capital that all the entrepreneurs in this study could bank on was their own human-cultural capital, high levels of which were needed to take advantage of the opportunities afforded by the accelerator. This they were able to successfully convert to financial and social capital simply by accessing the accelerator. The use of an accelerator enabled them to then convert the capital accrued to a legitimised form of capital, i.e., symbolic capital, which they could then convert to further financial and social capital. As Bourdieu (1983) has explained, conversion of capital is multifaceted as each form 'contains a tendency to persist in its being' (p. 241). Additionally, the value gained from social capital increases as one's human and economic capital increases as well (ibid).

Thus, even if an entrepreneur joins an accelerator specifically for that much needed cash influx (financial), it automatically increases the valuation of the firm (human) when the accelerator invests in it, which thereby helps gain a platform to raise a variety of other capital directly from the open market. Or, if an entrepreneur enters an accelerator with the aim of gaining access to key networking players (social), the entrepreneur also gets access to mentorship (human), clients, customers (social), other potential investors (social and financial), as well as other entrepreneurs (social). Nevertheless, irrespective of the direct benefits accrued, going through an accelerator helps increase the credibility of the firm in the eyes of external investors and business

partners (social and financial), not just in the host country, but internationally. Thus, business accelerators shape the opportunity structure of post-industrial/ high skilled markets whereby entrepreneurs without 'ethnic capital' end up with a full package of support which gives them the recognition to move ahead at a level beyond the national. Thus it was found that while there were no marked differences between the three groups in this study, the benefits for migrant entrepreneurs, irrespective of them being bound by policy or not, are compounded.

However, considering the recent emergence of business accelerators in the UK, little is known with respect to their various designs and their true value. Therefore this chapter has shed light on the potential power of this policy endorsed 'institution'. The next chapter will now evaluate the limitations of the business accelerators as well as of the opportunity structure that they are a part of.

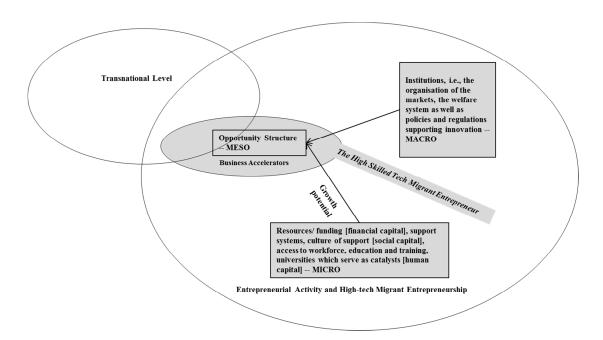
Chapter 6: Institutional Embeddedness of the Opportunity Structure

6.1 Introduction

In the previous chapters, the reasons for starting a migrant venture in the UK, as well as the processes of how the entrepreneurs are selecting accelerators to substitute traditional modes of resource mobilisation were analysed. This chapter now builds on the experiences of these entrepreneurs to emphasise the role of policy in migrant entrepreneurship today.

While accelerators might have been promoted as tools of selectivity to ensure only the 'best and brightest' is admitted to the UK, this chapter highlights the limitations of accelerators, as well as the restrictions of the opportunity structure that business accelerators are a part of. This is done by putting forward inter-related issues that the entrepreneurs had with accelerators and with the general entrepreneurial environment in the UK. This section is based on answers to questions that delved into aspects of expectations vs. realties on accelerator use and operating a business in the UK. Figure 6.1 below highlights the further links this chapter makes to the analytical framework of this research.

Figure 6.1 -- Analytical framework: institutional embeddedness of the opportunity structure



This chapter is broken down into two sections -- first, experiences using the accelerator, and second, non-accelerator challenges in the UK. Thus, the first part highlights the limitations of the accelerators as well as external constraints on them, and the second part the institutional embeddedness of the opportunity structure that the business accelerators are a part of. Non accelerator challenges that the entrepreneurs faced include access to follow up funding, talent, property, and general bureaucracy in the UK. Implications for British policy have been highlighted within the two sections. At the moment, it appears that based on the experiences of the migrant entrepreneurs studied, immigration policy, business accelerators, and business legislation, are at odds with each other.

6.2 Evaluations of the Accelerator

This first part of the chapter reveals a critical analysis of the British government endorsed accelerators based on the entrepreneur's actual experiences. While the previous chapter underscored the overall 'influence' of the accelerator on capital conversion, accelerators are not without flaws. The majority of the respondents in this study had issues with the accelerators. Thus, while they may provide access to resources, this section draws attention to the constraints, as well as pressures on the accelerators in providing these resources successfully. These issues included operational aspects and dissatisfaction with the networks offered. While some of the limitations of accelerators can be interpreted as being organic with the 'newness' of accelerators, others are potentially to do with the very structure of the equity-based accelerator model. However, the findings also pointed to further demands on the accelerators to effectively open up resources for the entrepreneurs. These pressures may be argued as having been placed by the drawbacks of the very opportunity structure that the accelerators are a part of which thereby influence the effectiveness of the accelerators. Issues that emerged from the data have been summarised below.

Table 6.1 – Issues with the accelerators used

Issue	Non-EEA (14)	EEA (16)	UK (15)
Accelerator Operations	12	11	12
Degree of Connections	10	10	11

6.2.1 Accelerator Operations, i.e., Limitations of the 'Resources'

a. Demo Day

Accelerators, in most cases, are founded by VCs and angel investors, or individuals (entrepreneurs in their own right; Christiansen, 2009) investing on behalf of VCs and angels. A lot of the problems cited by the entrepreneurs in this study can be interpreted as being attributed to this role as an investor or investment mediator. The concept of a business accelerator is meant to be distinctively different from simply, the basic advisory role that VCs have historically offered along with their investment (for e.g., Gorman and Sahlman, 1989; Hellmann and Puri, 2002). However, evidence indicated that lines were often being blurred between the treatment of an entrepreneur and his firm, to that of a student on a course, or as an addition to a financial portfolio. This must therefore be emphasised.

To start with, challenges resulting from the heavy focus on the process of the Demo Day, which is a pageant put on for investors and the media at the end of the programme, were experienced by almost all entrepreneurs -- irrespective of nationality, irrespective of accelerator used, and irrespective of their experiences in gaining follow up funding. Accelerators however, as active investors, would be extremely keen for the firms on their portfolio to gain further investment so that the accelerators can gain a quick return on their investment. For accelerators investing money on behalf of other investors, the demo day, would be the perfect opportunity to showcase the progress they made with the startups. This would also potentially help them attract further startups and/or investors for subsequent programmes. As Andrew, who has experience on multiple accelerators stated,

'With private accelerators you have to pitch publicly. They have demo days which present the startups but also present the accelerators or the VCs. So it is as much about promoting them as it is about promoting the startups. I think generally the hype of those days don't live up to the expectations.' (Andrew, entrepreneur from outside the EEA)

While this thesis does not attempt to analyse the usefulness of the process of public pitching, the challenge when considering the short time frame of a three month bootcamp, proved to be a distraction for the majority of entrepreneurs.

'It's a lot of work to prepare for it. I'm not quite sure if it is helpful. Because the audience, you've already met most of the audience informally. I think it is a waste. It is a nice bit of ceremony event... but it is a lot of time spent to practice that 6 minute presentation.' (Roman, entrepreneur from within the EEA)

b. Negotiations and Variable Equity

Evidence also revealed a further limitation, which can be interpreted as being a result of the fact, that the equity-based business accelerator is also technically an investor in the entrepreneur. This role has signalled problems in the relationship between the entrepreneurs and the accelerator, which is a concern, since accelerators take eight to ten per cent equity in exchange for the rather small amounts of money that they invest. The term accelerator is associated with a tool that would help and support. Conversely, the very structure of an equity-based accelerator puts the entrepreneur at odds with the accelerator, defeating its very purpose, as the quote below by Joanna, an entrepreneur from within the EEA, informs. Joanna's case was presented in the previous chapter as she was 'more than happy to give up equity' as acceptance to the accelerator meant gaining validation of her business idea. Her thoughts were reflected by a number of other interviewees as well, irrespective of nationality.

'I can't imagine it being beneficial to the accelerator for their young startups to be spending such a large part of their time checking terms, trying to understand what pre-emption rights are, negotiating over percentages, trying to get your head around trying to create an employee share options plan, working out which lawyer to go with to check everything over, feeling like you are at the other side of the table of your accelerator who is meant to be your friend... (There should be) more time on the core of the programme like opportunities for sharing and learning with each other like brokering and good advice and support. That's what an accelerator should be about I think.' (Joanna, entrepreneur from within the EEA)

Therefore, the operational technique of accelerators, where differences in negotiation with different firms occur, must be reiterated. While all investors negotiate with ventures they invest in, in this case, where the accelerator is meant to be more than an ordinary investor, it creates mistrust between the entrepreneur and the accelerator, as well as between the entrepreneurs on the programme. Ensuring a common set of terms for all firms however, creates transparency, and further allows open communication between all firms on the programme.

c. Basic Operations

Finally, evidence pointed to limitations associated with basic operational aspects of the accelerators. The accelerator model was created by a VC to diversify their own investments by helping a large cohort of very early stage startups reach key milestones in a short period of time (Miller and Bound, 2011). Though presumably, not all accelerators accounted for the diversity among the entrepreneurs they attracted with respect to their backgrounds and their respective needs. For example, Ron, a serial entrepreneur, who used the accelerator in the UK specifically for quick access to industry networks in the country, found the programme a waste of time.

'It was just not helpful... accelerators need to tailor their programmes according to the audience they have... just because you are a start-up company doesn't mean you are 22 years old and need to be treated like you are a complete beginner at the business game... For somebody who is senior, they need to look at the structure of the programme and tailor it differently, because for us, basic accounting, basic legal stuff, is stuff that I've all done before. You do not need to teach me how to do it again.' (Ron, entrepreneur from within the EEA)

6.2.2 Issues with Accelerator Networks, i.e., Constraints on the Effectiveness of the 'Resources'

a. Mentors and Business Connections

The amount of equity that accelerators take in exchange of the funding offered, can also be perceived to be imbalanced, especially if the mentorship and the networks that are provided are not viewed positively by the entrepreneurs, since their main aim of joining the accelerators was that very access.

Satisfaction with the degree of connections offered however appeared to be dependent on the level of expectations that the entrepreneurs had; the industry they operated in; and the accelerator used. Only two of the seven UKVI/Home Office linked accelerators to which the sample interviewees belonged, were targeted to specific industries. Due to the niche industries they operated in, expectations tended to meet reality.

However, even if more accelerators were industry specific or targeted to specific business functions, it must be noted that the matches accelerators might be able to make between entrepreneurs and mentors, might not always be particularly beneficial to the entrepreneurs at that early stage. This is because, as the interviewees revealed, the entrepreneurs essentially require not just guidance from people who may have had industry connections, but also from people who have essentially gone through the same

experiences as them, and who have been entrepreneurs themselves within the same industries. For example, Ian, an entrepreneur from within the EEA, moved to the UK with an accelerator. The aim with which he moved to the UK, was not the country, but the accelerator. He specifically hunted for top accelerators within the EU which would therefore ideally be close to 'home', yet afford him the mentorship he desired. Unfortunately, his ultimate need was not met.

'In those advisors (assigned by the accelerator), we could not really find an advisor who could help us in our speciality, and that kind of speciality would have helped us overcome many many hurdles. Many questions would have been dealt with in a very different way. We did not make a lot of mistakes. But it was that kind of perspective that was missing altogether.' (Ian, Entrepreneur from within the EEA).

Going back to the case of Alexander, an entrepreneur from within the EEA, whose expectations from the accelerator were also not met. He had moved to the UK with the help of the accelerator specifically to 'renew (his) European connections'. While accelerators are often started by entrepreneurs, groups of angel investors, or VCs as stated earlier, unfortunately, only few accelerators are well known to be 'star' performers, as mentioned by the interviewees. Even though the accelerator that Alexander used was not a star accelerator, this can be interpreted as a risk that migrant entrepreneurs are willing to take for the presumed security that accelerators would offer in making the transition to the new country. At the same time, this could also be construed as lack of awareness beforehand that accelerators cannot fulfil their expectations. However, this latter interpretation loses some of its value when specifically considering 'accelerator hopping' entrepreneurs who continue to explore further accelerators even after disappointment with the first.

'The accelerator was struggling with their own problems like securing funds for the next batch. And the guy who was running the programme was fired in between. So that was bad. So they could not really help us.' (Alexander, entrepreneur from within the EEA)

These limitations can also be interpreted as being attributed to the 'newness' of business accelerators in the UK. This is further coupled with the fact that an influx in high-tech startups in the UK has been witnessed only recently (Foord, 2013). This means that since accelerators are still a relatively new concept (the first one in 2005), and as they entered the British startup scene even later (proliferating in 2012), new accelerator owners needed to go through a transition phase to work out all the kinks for a smooth run. This leads to underscoring the fact that even though the accelerators open up meso level opportunities, the opportunity structure that the accelerator is a part of limits the entrepreneurs' access to those very opportunities.

Additionally, business accelerators still have to rely on the external environment to operate. For example, one of the 'main attractions' of accelerators, i.e. the 'superstar mentors', are understandably busy with their own ventures and cannot offer full time hands-on guidance. Therefore, accelerators often need to rely on larger networks of mentors to provide round the clock help to the firms. This mentorship is based on the reliance of third party industry based contacts who ultimately might expect some kind of reciprocity from the entrepreneur as well. This unspoken quid pro quo is yet another added trade-off that entrepreneurs have to make if they want the mentorship that goes along with the access to the UK market that the accelerator offers.

'I mean the amount of money they (the accelerator) give for the amount of equity they are taking. That doesn't match at all. They know that it does not match. That is why they are offering these extra things like networks and other things... And there were so many mentors who were there purely out of greed. Like, 'oh maybe I will find a company.' I had cases where they would come and whatever advice they would give they would be like 'I want to have two per cent of your company'. And they haven't added any value.' (Hans, entrepreneur from outside the EEA)

Hence, accelerators need to make clear from the start who their venture partners are, what their specific functions within the accelerators are, as well as what their level of involvement would be. If superstar mentors are promoted, superstar mentors must be offered. If big name brands are advertised as accelerator partners, the big name brands must also be offered to the entrepreneurs. For instance Oscar, who naturally presumed that the accelerator would offer him access to one of their venture partners as they functioned in exactly his same niche industry, learnt the hard way,

'Accelerator X did not want anything to do with Brand X. So a lot of the benefit we were hoping to get did not benefit us at all.' (Oscar, entrepreneur from within the EEA)

b. Investors

Financial considerations were one of the main reasons entrepreneurs entered business accelerator programmes. This was not just with the idea that they would get immediate funding, but also to a small extent, hope that they would potentially get further on funding, especially since 'hyped up' processes like the demo day promote that very dream.

However, evidence pointed to dissatisfaction with the investors introduced. While this issue was not a universal concern, and depended on the accelerator used, it needs to be put into the wider picture of expectations from an accelerator vs. the expectations an entrepreneur might have had if another funding source had been used.

'Accelerator X is well connected, and by and large a good accelerator, but they mainly had their targets slightly wrong and the type of investors they were exposing us to. So most of the companies that go into Accelerator X are seed funding stage, approving concepts, very early revenue... so by the time we go on to get follow up funding, we are still late seed stage, not quite Series A, more

likely to be attracted by late stage angel investors than venture capital firms so we got exposed a bit too much on the venture capital side... had we gotten access to more late stage angels it probably might have been more efficient for the group as a whole'. (Jonas, entrepreneur from outside the EEA)

This issue, for example, can again be interpreted as being due to the 'newness' of accelerators. This very 'newness' of accelerators in the UK would imply that accelerators needed a bit of time to gain publicity and attract further investors to have faith in the startups they accelerated.

Accordingly, evidence indicated that many of the problems stemmed from a lack of communication between entrepreneurs and accelerators and their deemed expectations. Jay, however, knew exactly what he was in for. He used multiple accelerators, but was clear on the get go about what he could expect, and was therefore ready for the fact that the connections he was after, would not fall right into his lap.

'It is not like accelerators have this pot of investors that they connect you to. It does not work that way. I mean there is one or two but nah, it is a platform upon which you then go and find investors.' (Jay, entrepreneur from outside the EEA)

As a result, business accelerators can be great support systems, and entrepreneurs have enjoyed this benefit. However, the findings suggest that caution is required in deciding whether an accelerator would completely satisfy all the entrepreneur's needs. While one entrepreneur may need immediate access to industry networks, another might crave hands on guidance. Therefore, the liability here rests both with the accelerator as well as the entrepreneur, to ensure that the kind of support, needed and offered, is clear from the beginning.

'I would recommend going through an accelerator if you are a first time entrepreneur like we are, because nobody in our team had done a startup before.

So there are specific things that you have to learn and it guides you through it. It has its cons. At the end of the day you have to think about the conditions for your business, how is it going to affect you positively or negatively.' (Roger, entrepreneur from within the EEA)

6.3 Evaluations of Policy Design and Related Issues, i.e. Institutional Embeddedness of the Opportunity Structure

6.3.1 Follow-on funding and cost of 'living'

In this study, for the majority of the entrepreneurs studied, the business accelerator that they used was their first real funder, and as the previous chapters highlighted, was used to substitute other forms of resource mobilisation. However, evidence pointed to challenges in gaining follow up funding after this initial capital. The general challenges faced in the UK with regards getting funding beyond the pre-seed stage was mentioned by almost all, irrespective of nationality, and is representative of literature on challenges in entrepreneurial funding in general (e.g. MacMillan et al, 1985; Conti et al, 2013)

'The biggest issue is investment. And a lot of startups will die if they can't find the right investment, and more importantly, the right investors... It depends on the investor sector too. For example, some of these investors are in metric, some of them just for marketing, sales, some of them just for online payments. There is a theme for each investor, so you need to find the correct information about each. And we need to improve this. Anywhere, this is a big obstacle. I'm sure there are a lot of investors here in the UK, but you need to know where they are located.' (Alan, entrepreneur from outside the EEA)

Three British government led entrepreneur initiatives, i.e., the EIS (Enterprise Investment Scheme) and SEIS (Seed Enterprise Investment Scheme) schemes and

Research and Development tax credits, have been cited as being particularly helpful²⁸. These government schemes may be considered as part of the country's agenda to encourage innovation. While most 'deal flow' accelerators (Pauwels et al, 2016) in the UK provide their funding to the entrepreneurs as part of their SEIS allocation, the findings suggested that entrepreneurs did not actively seek out these benefits, and that it did take time for the entrepreneurs to be aware of any other government funds beyond these. The findings highlighted that three entrepreneurs from within the EEA and another entrepreneur from outside the EEA were not cognisant of any government initiatives that they could avail of. EEA entrepreneurs, in particular, had access to home country and wider EU specific grants which left them less likely to search for local governmental help. The business accelerator too added significant value here. Roman, for example, had already utilised an accelerator in his home country which had funded his venture, and that helped open up doors to multiple EU wide government grants. He moved to the UK with another accelerator to access a wider market but did not feel the need for any other governmental backing as he was still supported by his home government.

'(UK schemes) have not given us any value, but that is because we have not explored it... (Accelerator X in home country) gave us that initial investment, and is supported by a framework given by the (home country) government, and

2

²⁸ The EIS scheme is a tax relief scheme meant to help small 'high-risk' companies raise finance by offering investors who purchase new shares in those companies substantial tax relief options such as income tax relief at 30 per cent, capital gains tax emption and tax deferral relief and loss relief. – https://www.gov.uk/guidance/venture-capital-schemes-apply-for-the-enterprise-investment-scheme

The SEIS scheme is a supplement to the EIS offering investors higher tax relief than the EIS scheme when investing in shares in early stage companies. -- https://www.gov.uk/guidance/venture-capital-schemes-apply-to-use-the-seed-enterprise-investment-scheme

The Research and Development scheme is a Corporation Tax relief scheme that allows an entrepreneur to get tax credits off future profits, or cash in hand when research is needed. -- https://www.gov.uk/guidance/corporation-tax-research-and-development-rd-relief

we got some favourable research and development grants called EIT and Fiware which was very supportive and wasn't too much of a burden for us to develop. And that helped us with the initial set up and development as well as the initial finding. We are also supported by multiple (home country) startup initiatives.' (Roman, entrepreneur from the EEA)

This may be viewed from two rather contradictory and subjective perspectives. The first is that business accelerators are such complete resources in themselves, .i.e., that business accelerators are the centre of the opportunity structure, and that no other resources are needed. On the other hand, it may be argued that business accelerators provide limited access to local opportunities more embedded in the national institutional structure, in the UK at least.

Yet, for those that explored the initiatives, the SEIS scheme proved to be the most beneficial. For example, Christina, an entrepreneur from outside the EEA, who could not get seed funding from angel groups, venture capitalists, or single funders who all required 'historical track records of performance' to invest, raised her entire early target round of £150,000 in 'bits and pieces' through the SEIS allowance.

The challenge that was felt however, was also cited as being part of a wider 'cultural' problem, where investors are not willing to invest in startups unless the companies have shown historical track records. This is indicative of a national-institutional opportunity structure not being as progressive as the accelerators that are part of it. While having a historical track record is an established requirement that most VCs consider to offset their risks (MacMillan et al, 1985), this was *always* mentioned in comparison to USA. This was an issue cited by all three groups of entrepreneurs -- migrant entrepreneurs from outside the EEA, entrepreneurs from within the EEA, as well as native entrepreneurs. The environment in the UK was often referred to as 'conservative'. This

label however was not just limited to references on the funding environment, but to an all-encompassing environment of inter-related actors within the entrepreneurial ecosystem. Matthew's quote below underlines this. Matthew is an entrepreneur who moved to the UK to study at the undergraduate level and stayed back for a postgraduate degree. He started his venture in the UK as he felt he had already been in the country for a while.

'...and when people start a business, they say, 'oh you're so brave' or something, because it is considered like, 'why are you doing this'. It is crazy. And also it is hard because the culture hasn't changed yet. When you try to sell to someone, so if you come to a huge company for example, they are always not trusting us because they think, 'oh it is a startup, why am I going to do this'. So it is very hard to sell. In the US the culture is completely opposite. So when they see a startup, they think differently, they say, 'oh they are going to be massive'... I think for us it is fine. At least in London the concentration of companies that are B2B is big enough that it still works... but for consumer startups, even harder than this... Accelerator X for example would not even take consumer startups or try to discourage them as much as they can as that is considered very very risky here' (Matthew, entrepreneur from outside the EEA)

The inability to easily gain access to follow-on funding was also linked to basic 'cost of living', with access to affordable property becoming an added issue for migrant entrepreneurs who moved to the UK purely because of the accelerator and had no personal networks in the host country. This is in contrast to entrepreneurs from within the UK who had an advantage as they were settled in the country, and as Mason, a British entrepreneur mentioned, could 'work out of (their) bedrooms' till they established themselves and started generating revenue.

While more co-working spaces may have cropped up in in the UK, the affordability still raised concerns. Maria's quote below emphasises this. Maria who eventually decided to take advantage of the benefits of virtual co-working, still needed an official base that she could call her headquarters.

'For starts, working in co-working spaces where we are is super expensive. We work, it looks super awesome, is super amazing but is super expensive. So I don't understand why the government can't provide the coolest working space for 300 startups at a nice price. That way it would be a direct help that would impact the ecosystem straight away. But no, instead we go and try to find corners everywhere to work and to do things. So that is something the government could do straight away that would impact but they don't.' (Maria, entrepreneur from outside the EEA)

But when considering cost of living and property prices, other unforeseen circumstances/ external factors need to be considered as well. This helps understand the overall national structure of opportunities. Changing levels of foreign investment, for example, has been heavily reported in the media²⁹ causing the mayor of London to launch an enquiry into the property market in October 2016³⁰. This was reiterated by the entrepreneurs in the study as well.

'But I am also checking out other places. I am checking out Berlin... You don't have millions of pounds of investment, and how you are supposed to get on when rents and properties and desk space and all that is just rising so much. It makes everything harder... Berlin. And Lisbon is also looking great in the future as well.' (Joanna, entrepreneur from within the EEA)

However, to counter property prices, an online search on tech property and co-working spaces shows that there are now free bespoke websites offering detailed information on every co-working space available in the UK, helping entrepreneurs find and negotiate the best office space for them -- by high-tech entrepreneurs for high-tech entrepreneurs, which was not the case back in 2012 or 2013 when the majority of the entrepreneurs interviewed here started their firms. Nevertheless, these developed tech hubs with developed entrepreneurial ecosystems only exist in a few cities in the UK where accelerators are also present. However, evidence from the interviews suggested that

²⁹http://www.ibtimes.co.uk/are-foreign-investors-really-problem-londons-housing-market-1585188

³⁰researchbriefings.files.parliament.uk/documents/CBP-7723/CBP-7723.pdf

property prices potentially drive entrepreneurs away from London. Though accelerators are now based in the North of England as well, most investor related and other professional networking takes place in London, leading entrepreneurs to have to travel back and forth regularly. Thus there is a mismatch between the amount of funding that is out there, and access to, as an entrepreneur put it, 'basic infrastructure'.

'Travelling from the North to the South, so from the North of England to London is very expensive. I wish there was something that made it a lot more accessible, other than buying tickets three months in advance... 'Coz a big piece of our expenditure goes to attending meetings in London and sometime you just have to jump on a train and go down.' (Gus, entrepreneur from outside the EEA)

This leaves business accelerators with restrictions on their ability to open up the meso and micro level opportunities that they have the potential to do. Thus, while business accelerators open up resources for activity, the entrepreneurs' ability to draw on these are eventually then constrained by how accessible the rest of the institutionally embedded opportunity structure is.

6.3.2 Staffing

Despite the benefits of Britain being 'open for business'³¹, it is very important to note that for these migrant entrepreneurs from outside the EEA, policy expectations put considerable restraints on their business survival decisions, especially with regards to accessing talent. It may be argued that policy expectations have very clearly been framed with the explicit purpose of ensuring only the 'right' kind of migrant continues to stay in the country. If entrepreneurs on the Tier 1 Entrepreneur Visa (with a three

³¹ https://www.gov.uk/government/publications/entrepreneurs-setting-up-in-the-uk/entrepreneurs-setting-up-in-the-uk; https://www.migrationwatchuk.org/briefing-paper/299

year validity) wish to extend their visa for a further two years, they are expected to have created at least two full time jobs that have existed for at least 12 months through their firms (Gov.uk, 2018a, b). While only a small number of entrepreneurs in this study are on this visa, the experiences of all the entrepreneurs have implications for understanding this policy. For young startups struggling to raise funds, this requirement raises obvious concerns, as Christina put it,

"...it takes at least two to three years for a firm to start generating money and to start adding jobs... They (the government) need to have a clear picture of what the startup world is from the inside.' (Christina, entrepreneur from outside the EEA)

This needs to be considered in tandem with other financial restrictions such as national insurance and payroll taxes that are placed on young firms, making the process of hiring employees trickier, and thereby indirectly prolonging the timeline of hiring said employees. As Andrew, another entrepreneur from outside the EEA, emphasised that these taxes make him think twice when hiring someone new, as the salary that they have to offer in itself has to be highly attractive to get the right high skilled talent.

'I mean it is a costly exercise when you hire people. First there is obviously the salary, but then on top of that there is the big chunk of money that has to go to national insurance and that sort of stuff. So there is a big back of the mind question whenever we bring someone on board. So it is not only the cost of salary but there are also questions on top of that when it comes to taxes. We have to think about do we hire more, do we hire overseas people, do we use contractors etc.' (Andrew, entrepreneur from outside the EEA)

When it comes to considering the amount of funds that firms in the UK need to hire the right high skilled talent, evidence indicated that there is once again a mismatch between the amount of funding that is out there that entrepreneurs have access to, and the talent that entrepreneurs can get. First, hiring high skilled technical talent is expensive. And hiring good high skilled technical talent is very expensive. Second, the very good

technical talent out there is normally in great demand, and migrants new to the country face the obvious disadvantages of lack of access to networks of this talent. While either having to rely on the open market or 'kith and kin', or consequently relying on extended networks of ethnic solidarity, was the route to hiring employees for migrant entrepreneurs in the past (Min and Jaret, 1984), the issue with hiring people through these routes poses a problem for migrant entrepreneurs of tech based high growth businesses requiring employees with specialised skill sets. Out of the 30 migrant entrepreneurs, about half had not employed anybody full time, with a substantial number from those that did, having done so from countries outside the UK. Reasons for these were cited as not having the need as yet; not having enough money; or not being successful in finding the right person. While regular routes of hiring such as relying on the open market do work, it was cited as being inadequate. Existing research has already highlighted the value of 'quality' human capital for high-tech long-term success (Siepel et al, 2017). Accordingly, due to the level of skill that is required, as well as, as many entrepreneurs put it, the 'level of trust' that tech entrepreneurs need to have with their employees due to the confidential nature of 'ground breaking tech', migrant entrepreneurs without the 'inside networks' are left at a disadvantage. Hans, an entrepreneur from outside the EEA struggled to find the right hires, and faced multiple problems along the way till he finally decided to outsource the work.

'Part of a successful business is hiring the right people. And that was a priority. The thing that I was doing is looking in whatever way I could. I asked anybody and everybody.' (Hans, entrepreneur from outside the EEA)

And more importantly, since highly talented tech professionals are in great demand and offered a lot of money, they are not quite willing to risk their careers working for a startup, as was pointed out by a number of entrepreneurs.

'And in the UK, obviously there are great British developers and also developers from all over the world in the UK, but they are being paid a lot by financial institutions and other businesses so it costs a lot to hire them full time.' (Dominic, entrepreneur from within the EEA)

Essentially, what is seen here can be interpreted as being a double edged sword. First, for those outside the entrepreneurial world, investing ones time in an entrepreneurial venture is considered 'risky'. And unless an entrepreneur has pre-existing networks, and can hire someone she/he knows and trusts, often the individuals that are willing to work for startups aren't very good.

Furthermore, migration policy in the UK with respect to hiring employees from outside the EEA is also stringent, with firms being mandated to pay much very high salaries, as well as being subject to inflexible conditions³². Andrew's case below underlines this difficulty. Andrew eventually found the perfect employee in South America.

'Immigration and visas is always a challenge. Our first hire is not from the UK. Our plan is to bring him here. There have been some challenges to bring him here... But at least the good thing is we are in Europe. So if we want to hire someone from Europe, at least we can bring them across, no questions asked. Well at least we can at the moment. But now (with 'Brexit') who knows.' (Andrew, entrepreneur from outside the EEA)

Thus, once again, what this section highlights is the national institutional context that puts limitations on the level of resources that entrepreneurs can access, even with using business accelerators.

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³² Information on visa sponsorship for the Tier 2 Visa, which relates to the hiring of high skilled individuals may be found at https://www.gov.uk/uk-visa-sponsorship-employers/job-suitability

6.3.3 'Brexit'

Finally, another pressure on the accelerator in terms of the 'level' of opportunities being opened is that of 'Brexit', when regulatory processes have a potential to change, if and when, the UK leaves the European Union. Chapter 4 called attention to how business accelerators, which open up markets to entrepreneurs, are used by them to 'hop' from one accelerator to another, and thereby one country to another in search of more viable markets. Thus, with 'Brexit', this is an important consideration from a policy perspective. This is also a significant concern regarding the encouragement of innovation and the development of a successful local 'entrepreneurial ecosystem', since London in particular has always been a 'world city', a home of the transnational elite (Friedmann and Wolff, 1982). However, based on challenges that the entrepreneurs foresaw, evidence revealed that they did consider other European countries. Places with thriving 'startup scenes' cited were Berlin, Stockholm, and Estonia. However, entrepreneurs also noted the benefits of moving to countries where tech hubs were 'just starting up'. Dublin was seen as a great alternative, not just because of the tax benefits³³, but also for the proximity to the UK as well as to the rest of Europe. This proximity is important, because so far, there is no such thing as a united 'European startup scene' to rival that of the US, as Dominic, an entrepreneur from within the EEA mentions below.

'While it is easy to do business across countries for companies, especially for startups, for funding, Europe is too fragmented.' (Dominic, entrepreneur from within the EEA)

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³³ More information may be found at http://www.citizensinformation.ie/en/employment/types_of_employment/self_employment/setting up a business in ireland.html.

Another important consideration that was mentioned, was the potentially reduced access to skilled technical people from Europe, especially as access to migrant talent is a key pillar of a developed entrepreneurial ecosystem (Isenberg, 2010). The quote below by Grant, an entrepreneur from within the EEA emphasises this.

'When we decided to incorporate, it was a no brainer because London is the capital for entrepreneurialism. Now what the environment is going to look like in three years nobody knows... every entrepreneur will tell you that being able to sell into that market and being able to hire from that (wider EU) market without any restrictions is the only important thing with regards to entrepreneurialism in the UK.' (Grant, entrepreneur from within the EEA)

However, while the UK is still in the EU, entrepreneurs have easier access to entrepreneurs in the EU as Andrew mentioned earlier. Furthermore, European entrepreneurs have easier access to home country professionals, and have professed to being partial to hiring them as they can access the best technical talent from home at reduced salaries and for short periods of time.

Issues do arise though, for either those entrepreneurs without that access, or entrepreneurs who in the near future might not be able to access it due to policy constraints. For instance, in the past, entrepreneurs from beyond the EEA without that social capital have had to rely on virtual workers, and form virtual teams, to get the same benefits. While virtual co-working is common in the high-tech world especially in the USA due to its convenience (Johns and Gratton, 2013), for a migrant entrepreneur without the right networks, this too has its drawbacks, as these employees cannot be vetted, and entrepreneurs have to often look not for the best developer, but for the developer with the lowest quote. This leaves entrepreneurs vulnerable. Going back to Hans, his struggles continued even with his first attempt at outsourcing till he finally decided to move his operations to the EU.

'I did find someone from a random country..., because the developers I hired did not have the technical expertise. And another person I hired from (a third country) ran with my money. Completely. He did some work, and then he asked for an advance. And I sent it. Sometimes you have to go with the flow. So completely disappeared. But you have to take these kinds of risks anyways... later I set up the back end development in (EU) which was cheaper and I could get good people... so I set up an office there. ' (Hans, entrepreneur from outside the EEA)

Thus, if opportunities to the UK were being opened up, it was presumed by entrepreneurs that this, by default, led to opportunities across Europe. However, whether 'Brexit' is a true constraint on the entrepreneurial ecosystem is something that one can only know with time. Therefore, the level of effort it takes for a migrant entrepreneur to set up in a country, irrespective of how easy the accelerator makes it, must be reiterated. As two entrepreneurs from within the EEA, and another two entrepreneurs from outside the EEA revealed that they had spent a long time building trust and reputation in the UK, and moving would only upset their businesses. Christina's quote below shows the extremely strategic thinking behind this decision.

'At the moment, it is such a big feat to establish yourself in the UK that I'm thinking that the majority of our focus for the next 5 to 10 years will be in the UK. And there are plenty of stories of startups in Silicon Valley... like X for example where they went to Germany and it didn't really work out, so I guess it is learning from people who have done before and seeing what is helpful, and what isn't helpful.' (Christina, entrepreneur from outside the EEA)

Thus, while on the one hand, migration policy is structured around enabling high-tech migrant entrepreneurship, with business accelerators being part of that opportunity structure, however, on the other hand, as all the sections have shown; the institutional context of the opportunity structure limits its effective implementation.

6.4 Conclusion

This chapter has evaluated the experiences of the migrant entrepreneur bringing into focus issues of the accelerators -- hiring, funding, property prices, and general environmental conditions. The selective nature of migration policy in the UK is attempting to attract and then select from a global pool of high skilled talent. Therefore, 'recruitment' and selection' of these migrant entrepreneurs are being focussed on. However, the issues highlighted in this chapter show that accelerators are limited in their ability to open up the opportunity structure beyond serving as an attraction and selection tool.

The selectivity of migration policy presumes that entrepreneurs are willing to make compromises to gain access to the British market, and this chapter makes it apparent that migrant entrepreneurs continuously make trade-offs so that they may able to operate their business in the UK. In that respect, it is unfortunate that migrant entrepreneurs are still disadvantaged. Due to its popularity, policy appears to have offered business accelerators as a further route to gaining financial capital, but at the same time function as a 'check' in the selection of migrants. However, the accelerators themselves are deeply embedded in the national institutional context, which limits their functionality, thereby potentially minimising the attraction of the business accelerator in the first place. While all the entrepreneurs, irrespective of nationality, essentially made similar 'compromises', migrant entrepreneurs from outside the EEA are increasingly bound by them because of the increasing attachment of accelerators to policy.

Thus, expanding the above, the overall experiences of entrepreneurs highlight a contradiction within what UK policy appears to be doing, and what their real aims

might have been. First, if business accelerators are promoted through policy for migrant entrepreneurs to use, their function in supporting the entrepreneur is blocked due to the lack of networks and the 'mind-set' of the networks that do exist. Second, it might appear that policy makers are acting 'entrepreneurially' in attempting to attract entrepreneurs using business accelerators. However, they do so only for a trial period, attaching strict rules to the entrepreneurs' visas such as creating a certain amount of full time jobs. Yet, the experiences of the entrepreneurs highlight factors such as the country's overall regulatory framework, inability to get adequate funding in a short period of time, and lack of motivation from the high skilled workforce to 'risk' working for a startup thus preventing the majority of firms to meet those conditions in a short timeframe. This highlights the fact that the national-institutional structures of opportunity are not as progressive as they might appear to be. While business accelerators, which have been promoted by policy, open up resources for entrepreneurial activity, the entrepreneurs' ability to draw on these are eventually then constrained by how accessible the rest of the institutionally embedded opportunity structure is. Thus, business accelerators which are unconventional in their structure despite their limitations, are part of an opportunity structure which is yet to catch up. This highlights the fact that governments need to consider policies surrounding entrepreneurship, migration, as well as the promotion of tech migrant entrepreneurship in tandem for the policies to be effective individually.

Chapter 7: Conclusion

7.1 Thesis Summary

Drawing on a 'mixed embeddedness' approach (Kloosterman et al, 1999) which takes into account both structure and agency in understanding the causes and consequences of migrant entrepreneurship, this thesis studies the ways high skilled migrant entrepreneurs operating in the technology sector explore opportunities and mobilise resources. By doing so it examines the following key question.

Research Question – How do high skilled migrant entrepreneurs in the tech sector navigate their entrepreneurship with the use of business accelerators?

This question was investigated empirically using qualitative data. The primary data was drawn from interviews with 14 entrepreneurs originally from countries outside the European Economic Area (henceforth, the EEA), 16 entrepreneurs originally from countries within the EEA, and 15 entrepreneurs originally from the UK who had taken part in UK Home Office endorsed business accelerator programs between 2011 and 2016.

In doing so, the thesis unpacks the following key themes.

- a. The agency of the high skilled migrant entrepreneurs in utilising business accelerators to chart their migration.
- b. The interplay of business accelerators and access to resources.
- c. The institutional embeddedness of business accelerators.

These themes were developed in three empirical chapters (Chapters 4, 5 and 6) to highlight the overall premise of this research, i.e., the interplay of business accelerators, public policy and migrant entrepreneurship. By focusing on business accelerators, the thesis has studied entrepreneurs who started businesses in recent years after a new points based hierarchical system of migration was implemented in the UK, and a brand new tier for the entrepreneur was specifically created. This goes hand in hand with considerations of immigration in general becoming more restrictive, with the Tier 1 being one of the few routes left for new migrants to become an entrepreneur in the UK.

The themes above draw on literature on both migrant and tech entrepreneurship. The core analytical framework was based on the theory of 'mixed embeddedness' (Kloosterman et al, 1999) which argues that migrant entrepreneurship is dependent on not just an entrepreneur's access to resources but also on markets and the regulatory frameworks of the local context. However, due to the literature's lack of specificity about tech resources and institutions, the thesis also draws on the idea of the 'entrepreneurial ecosystem' (Isenberg, 2010), which complemented the former. The analytical framework of this thesis has been depicted once again in the figure below.

Transnational Level Institutions, i.e., the organisation of the markets, the welfare system as well as policies and regulations supporting innovation Opportunity Structure MACRO The High Skilled Tech Migram Entepreneur MESO Business Accelerators Resources/ funding [financial capital], support systems, culture of support [social capital], access to workforce, education and training, universities which serve as catalysts [human capital] -- MICRO Entrepreneurial Activity and High-tech Migrant Entrepreneurship

Figure 7.1 -- Analytical framework: recap

This thesis highlights three key findings.

The first crucial finding that this thesis brings to attention is that business accelerators are used by highly mobile entrepreneurs who sit outside the presumed confines of migrant entrepreneurship. These entrepreneurs appear to be in continuous search for the best environment for their businesses. And in this quest, business accelerators were used to chart their migration. Accordingly, Chapter 4 highlighted how the entrepreneurs perceived the British opportunity structure and how this use of business accelerators helped potentially shape a transnational opportunity structure instead. Many entrepreneurs 'hopped' accelerators to continuously explore new markets. Accelerator programmes which acted as nodes of transnational connections, opened up opportunities globally. Accordingly, accelerators are involved in playing a part of an intermediary between the entrepreneurs and the UK government. This finding also

feeds directly into a changing idea of what constitutes transnational entrepreneurship and how migrant entrepreneurs forge networks across the world.

The second key finding that this thesis highlights is the specific ways migrant entrepreneurs in tech utilise business accelerators in their resource mobilisation strategies, with accelerators being used by the entrepreneurs as a substitute to other 'traditional' capital. Using Bourdieu's (1986) forms of capital, Chapter 5 emphasised how, with the one capital that the entrepreneurs could bank on, i.e., their own humancultural capital, they were able to successfully convert it to financial and social capital simply by accessing the accelerator. On acceptance, they immediately gained access to funding and extended networks offered by the accelerator. This acceptance however also led to validation of their business idea; an increase in the valuation of their firms; and the recognition that they were part of an 'elite' group of global entrepreneurs. Thus, the use of an accelerator enabled them to then convert the capital accrued to symbolic (human-cultural) capital, which they could then convert even further to financial and social capital. This they were also able to do at a transnational level whereby the entrepreneurs were able to bank on accelerator based resources to operate at a level beyond the local context. This was witnessed amongst all three groups of entrepreneurs. Thus, this is indicative of the very nature of tech, rather than migrant status. This is also shown to be a departure from existing literature on migrant entrepreneurship, including work on high skilled and high-tech migrant entrepreneurship, which highlights the importance of ethnic solidarity in mobilising capital.

The third key finding that this thesis brings to light, based on the experiences of the entrepreneurs studied is that, immigration policy, business accelerators, and business legislation, are at odds with each other. Not only did the accelerators have inherent weaknesses, but they appeared to be further bound by the national-institutional context

which affected their functionality. Furthermore, the findings evidenced that while it might appear that policy makers are acting 'entrepreneurially' in attempting to attract entrepreneurs using business accelerators, they do so only for a trial period, attaching strict rules to the entrepreneurs' visas such as necessitating to generate a certain amount of full time jobs. Yet, the experiences of the entrepreneurs points to issues such as the country's overall regulatory framework, inability to get adequate funding in a short period of time, and a lack of motivation from the high skilled workforce to 'risk' working for a startup, thus preventing the majority of firms to meet those conditions in a short timeframe. Consequently it may be argued that these findings highlight a potential contradiction within what policy appears to be intended for, and what their real aims might have been. Thus, while business accelerators, which have been promoted by policy, open up resources for entrepreneurial activity, the entrepreneurs' ability to draw on these are eventually then constrained by how accessible the rest of the institutionally embedded opportunity structure is.

Thus, based on the above findings, the analytical framework has been revisited and the figure below apices this thesis' main contribution.

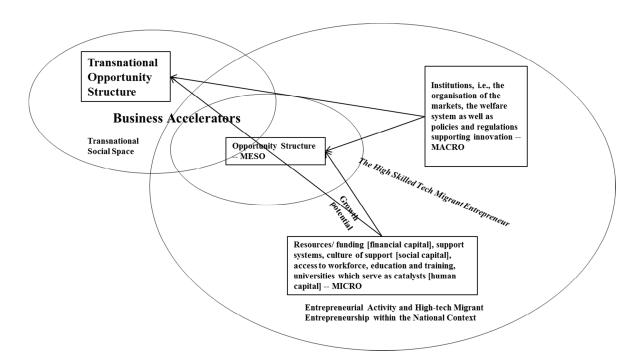


Figure 7.2 -- Analytical framework revisited: framework based on the findings

Based on the aforementioned findings, what the figure above highlights is that due to the nature of business accelerators and its use by entrepreneurs and policy makers, accelerators shape opportunity structures beyond a single national-institutional context. Accordingly, it is further stressed, that both the mixed embeddedness and entrepreneurial ecosystem concepts have scope to be refined beyond a local/regional context. This has been unpacked further below to highlight the thesis' key theoretical contributions.

7.2 Theoretical Contributions

This thesis contributes to the migrant entrepreneurship literature by further defining the relationship between policy conditions and personal and mobilised capital in the entrepreneurial process. As accelerators have not been studied with respect to migrant entrepreneurship, this research makes the following three key original theoretical contributions to the academic literature.

7.2.1 Transnationalism

The thesis shows that while the mixed embeddedness model (Kloosterman et al, 1999; Kloosterman and Rath, 2001; Kloosterman, 2010) is a useful analytical framework to understand the emergence of high-tech migrant entrepreneurship in the UK, it fails to explain newer forms of transnational influences on migrant lives. Recently, Bagwell (2018) built on this to highlight a transnational layer of embeddedness between a number of countries, which is in part due to the diaspora's history of migration. However, the focus here still places the entrepreneur and his/her access to a form of 'ethnic' capital, at its heart.

The findings of this work suggest that while high-tech migrant entrepreneurs are affected by financial, social, human (Chapter 5) and institutional (Chapter 6) dynamics, the global demand for high-tech ventures allows these entrepreneurs to exercise their own agency and create opportunities (Chapter 4) that shape these dynamics. This is in line with the theory of 'mixed embeddedness' which argues that businesses are not created in a socio-economic vacuum but also dependent on time and place specific contexts (Kloosterman, 2010).

With the promotion of tech entrepreneurship in the UK, and the attachment of accelerators to policy, the kinds of businesses that these migrant entrepreneurs in the UK start, are not just based on the resources that they mobilise, but also on the opportunity structure. While Kloosterman (2010) emphasises the time and place specific context of the opportunity structure as mentioned above, this is identified as being national rather than transnational. Evidence however suggests that these tools, i.e., business accelerators, that have been used to promote high-tech migrant entrepreneurship, are designed in such a way that entrepreneurs use them to test different markets, build global networks, but without any guarantees of a long term base in either. Their businesses utilise international networks which are built via accelerator-led serial migration. This serial migration therefore makes evaluating high-tech migrant entrepreneurship from a singular host country perspective redundant. Thus, there is a need to move beyond understanding opportunity structures as being local.

Furthermore, the conception of transnational entrepreneurship potentially needs reevaluation. The notion of transnationalism is built on the idea that migrants build
'social fields that cross geographic, cultural and political borders' (Basch et al, 1994:6),
and therefore it is defined as the way migrants 'forge and sustain multi-stranded social
relations that link together their societies of origin and settlement' (ibid). Portes et al
(2002) used two criteria to classify transnational entrepreneurs. They defined them as
being migrants who are firm owners; who travel at least twice a year; and whose firms'
success depends on regular interaction with other countries; or steady contacts with
their home country. The focus they attach however is to migrant entrepreneurs' success
being primarily due to their ties with their country of origin. But Portes et al (2002), as
well as Bagwell's (2018) research does not factor in the phenomenon of serial

migration (Ossman, 1994) that is seen among the entrepreneurs in this study. First, as mentioned earlier, the global demand for high-tech ventures has led to the creation of policy frameworks around the world by promoting business accelerators as migratory tools, which in turn, encourage high-tech ventures to explore their lands. Yet at the same time, business accelerators themselves scout entrepreneurs as they are always looking to add to their portfolio of investments. This entrepreneurial migration has led entrepreneurs to 'accelerator hop'. Thus, these two factors, further coupled with the very nature of the tech sector which is based on geographical flexibility (Brixy et al, 2013; Da Rocha et al, 2017) is shown to be influential in shaping these newer accelerator-led transnational links. This has not only potentially limited their intention to remain in any one country, but has also indirectly led to the creation of a kind of transnational entrepreneurship which goes beyond the entrepreneur's ties between home and host country, or diaspora based linkages.

7.2.2 Accelerators, Opportunity Structures and Institutional Frameworks

In 2010, Kloosterman built on the 'mixed embeddedness' framework to further stress on the three levels of analysis to understand the entrepreneurial opportunities available to migrants, i.e., the macro, meso and micro levels of the opportunity structure. In this framework, a 'simple model of the opportunity structure' (Kloosterman, 2010: 28), is put forth. The focus here is on accessibility of markets, where lack of capital (financial, human and social) not only limits an entrepreneur's ability to enter certain markets but also limits his/her ability to expand a fledgling business. As Kloosterman (2006: 4) states, 'opportunities occur in markets... to be able to start a particular business in a market where a demand seems to exist, an aspiring entrepreneur has to have the right

kind of resources'. And that is further dependant on the geographical location, political climate, and the regulatory framework supporting migrant entrepreneurship, thus underlining the institutional embeddedness of the opportunity structure as well.

Therefore, the overall structure of opportunities affecting migrant entrepreneurship is dependent on inter-related factors at the three levels of micro, meso, and macro. Based on the findings, this thesis associates business accelerators with shaping the opportunity structure (Kloosterman, 2010) for migrant entrepreneurship at all the three levels.

At the macro level, using business accelerators which promote technology startups is one of the few remaining routes for new migrants to start a business in the UK, underlining a selective migration regime where legislation also invariably dictates the kinds of businesses it prefers. However, through the process of 'accelerator hopping', business accelerators were seen to be actively used to gain quick access to new markets, thereby influencing the opportunity structure at the meso level. And at the micro level, business accelerators were seen to provide access to resources. Nevertheless, going back once again to the macro level, it was witnessed that the entrepreneurs' ability to draw on those accelerator-provided resources were constrained by how accessible the rest of the institutionally embedded opportunity structure that accelerators are a part of, actually was.

The findings of all the chapters taken together highlight the need for broadening our understanding of institutional frameworks that shape opportunity structures, as being 'mostly national in character' (Kloosterman, 2010: 39). Evidence is presented showing how accelerators attract a very diverse group of migrant entrepreneurs. It is also shown how individuals used accelerators specifically to tap into their global networks. Further, as mentioned above, evidence is also provided detailing the specific ways migrant entrepreneurs tapped into the accelerators and converted the capital gained. Whilst they

might have had a number of different rationales for choosing to base their businesses in the UK, it is clear that accelerator programmes act as nodes of transnational connections opening up opportunities globally. While these organisations do 'recruit' talent to a given location at a given point in time, the existence of other accelerators in other countries as well as programmes held and mentorship/investment offered in other countries by the same local accelerator, continue to be part of the broader opportunity structure. Furthermore, the symbolic capital thus accrued simply through accessing an accelerator, facilitates easy acceptance onto further programmes internationally. Similarly, as more countries embrace business accelerators to promote national agendas of innovation, migration might be linked to even further directions. All of this together helps shape a global 'opportunity structure' for high skilled individuals for whom entrepreneurship can now be truly borderless.

7.2.3 Accelerator Provided Transnational Symbolic Capital

Whilst existing research on migrant entrepreneurship has extensively studied the 'tangible' forms of resources they mobilise, the 'legitimated', 'recognised' form of those capitals, i.e., symbolic capital is under-researched within this literature (Ojo, 2017). However, newer research has evaluated the multifaceted nature of symbolic capital in migrant entrepreneurship, where Rodgers et al (2018), for instance, have studied how symbolic capital accrued from the co-ethnic community, co-migrant experiences, or even from the wider host society translate across transnational social spaces. The findings of this thesis take that forward to show how accelerator-provided symbolic capital provides entrepreneurs with credibility in the global tech market.

Accelerators vet the entrepreneur and provide them with 'quality assurance' as this 'third party certification' serves as an indicator of quality (Polidoro, 2013; Drover et al 2017). In doing so, through a combination of factors such as showcasing the endurance (MacMillan et al, 1985) to go through an intensive programme such as this, access to all the 'direct' resources that accelerators provide, and the lean startup methodology that accelerators rely on wherein the products are presumably market tested, give entrepreneurs the standing to then reach out to customers, clients, investors and other business partners and make meaningful connections. However, since accelerators operate in a number of countries, these connections being made end up at a level beyond the local as entrepreneurs used existing accelerators to tap into multiple markets. The credibility afforded by these established 'institutionalised' social ties therefore also help entrepreneurs make a place for themselves in other countries where these top accelerators operate. Although the accelerators publicly claimed to be open to all ideas, from novices and experienced entrepreneurs alike, the interviewees also often voiced that they were scouted by other accelerators as well as by other governmental innovation programmes, and other corporate accelerators globally once having been through one programme. This might also be attributed to the credibility thus afforded.

Accordingly, whilst business accelerators may be promoted by policy, this thesis argues that due to the high levels of human capital that the entrepreneurs possessed, the entrepreneurs thus used their agency to identify the 'opportunity' of a business accelerator to convert their human capital to financial, social, as well as other forms of valuable human, i.e., symbolic capital, giving them a support system to fall back on, and the global recognition to move ahead.

Therefore, through this 'certification' that accelerators provide, this thesis adds to the literature on symbolic capital by highlighting the complex and transnational nature of symbolic capital that migrant entrepreneurs in the tech sector gain, and then later, bank on.

7.2.4 Accelerators as 'Ecosystem' Actors

Stemming directly from the point made above, this thesis, to a small extent, also questions whether the heavy focus on accelerators as important ecosystem actors (for e.g., Fehder and Hochberg, 2015; Gonzales-Uribe and Leatherbee, 2017; Van Hove et al, 2018) is justified. While accelerators are essential to a 'successful entrepreneurial ecosystem', as they are enablers of innovation, accelerators are limited in their functionality by the 'entrepreneurial ecosystem' itself. Beyond attracting innovation to a region, and in that process, serving as selection tools for policy, they are limited in the extent to which they can open up the local markets due to the broader institutional framework as well as the overall 'culture' of that same ecosystem.

Likewise, from this same ecosystem perspective which focuses on encouraging innovation within a (local) region, consideration must be given to the fact that these 'institutional intermediaries' (Feld, 2012) are essentially not local in character. As the thesis highlights, accelerators are increasingly transnational in nature, whereas, entrepreneurial ecosystems are not. Accordingly, this policy centric concept does not take into account that accelerators really do not have the power to retain that innovation they potentially attracted and so carefully selected, putting into question the true 'position' of accelerators within the local entrepreneurial ecosystem.

7.2.5 Migrant Integration

While this thesis did not attempt to study the integration of the migrant entrepreneurs or their commitment to the UK, the thesis nonetheless does indirectly have implications towards understandings of migrant integration. Existing literature on migrant entrepreneurship based on forms of capital, mixed embeddedness and transnational entrepreneurship (e.g., Nee and Sanders, 2001; Portes et al, 2002; Wang and Warn, 2018), evaluates migrant entrepreneurship through the lens of integration in the host country. Transnationalism for instance, has been touted as an antithesis to assimilation, and is believed that with time, it will reduce as an individual integrates into the host society (Portes et al, 2002). This is more often than not backed by debates on successful integration of the migrant entrepreneur in the said country. However, Gryszmala-Kazlowska and Phillimore (2018) put forth that integration does not enable a true understanding of how migrants adapt whilst operating in 'transnational social fields' (Levitt and Glick-Schiller, 2004) or when migrating to 'superdiverse' regions where the dynamics of what constitutes a majority are changing (Vertovec, 2007). This needs to be therefore borne in mind when considering changing forms of resource mobilisation in high-tech migrant entrepreneurship today, as well as the ways business accelerators are used by entrepreneurs to chart their migration.

The inter-related findings of the entrepreneurs searching for accelerators rather than countries, and the use of accelerators as a substitute to traditional resource mobilisation, highlight the agency of these highly skilled individuals to create opportunities for themselves which frees them from the limits of localised forces of inequity. This

therefore blurs the boundaries between the entrepreneur and integration in a single host country.

7.3 Practical Recommendations

Global policy structures have taken a turn towards selectivity. Points based systems created by multiple nation states have successfully and skilfully tilted the overall migrant population mix in favour of highly skilled individuals (Lissoni, 2018). The promotion of high-tech/high-growth/high-value entrepreneurship to the exclusion of all others is indicative of this. This selectivity is often bound by debates on integration and assimilation in the UK. However the strict restrictions placed on the Tier 1 Entrepreneur visa scheme limits entrepreneurs from fully settling into the UK due to the uncertainty that it brings. Migrant entrepreneurs are further bound by local business legislation, which is currently at odds with migration policy. This study therefore has a number of policy implications for the utilisation of business accelerators in local and global migratory policy frameworks.

7.3.1 Scope of Accelerators in Enabling Commitment

As mentioned earlier, this thesis did not aim to assess the entrepreneurs' commitment to the UK. Nor does it suggest that business accelerators were promoted by policy to promote integration, or enable commitment. However, if policy does aim to not just attract but also potentially retain innovation in general, it is put forth that the use of business accelerators be done so with caution. While the competitiveness and the robust

selection procedures of accelerators make them great selection tools, the very nature of the business accelerator model does not encourage entrepreneurs to stay back in the host country. As Chapter 4 highlighted, the short duration of the programme has been shown to be counterproductive, with entrepreneurs choosing to 'accelerator hop' to any part of the world to quickly solve immediate concerns. Highly attractive accelerators offering funding, networks, and mentorship, under short boot camp courses allow entrepreneurs to test the waters in newer markets without a long term commitment. At the same time, while the UK has implemented the use of business accelerators to attract high skilled entrepreneurs to the country, this is in line with equally attractive policy structures offered by a number of nation states, with accelerators being placed at the centre of their policies. However, to avail of these benefits, accelerators also have to move their businesses with them across borders. Thus, as these entrepreneurs become more mobile, the innovation they brought with them to the country, departs with them as well.

7.3.2 Accelerators 'Supporting' Innovation

While business accelerators are advertised as seed funds, they nevertheless offer a full package of support to entrepreneurs. Furthermore, as part of the Sirius programme, accelerators not just operate as institutional mediators, but in their role as a service provider, they aim to provide a support structure for the migrant entrepreneurs involved. However, as Chapter 6 highlighted, if business accelerators are promoted through policy for migrant entrepreneurs to use, their function in supporting the entrepreneur is blocked due to the lack of networks and the 'mind-set' of the networks that do exist. Therefore even the most 'perfect' accelerator is bound by 'local

conditions'. Thus the incompatibility of migration and entrepreneurship policy leads to rather limited opportunities for accelerators to function effectively in providing support. Accordingly, accelerators also need to make clear from the very start, exactly who their venture partners are, as well as what their level of involvement would be.

7.3.3 Incompatibility of Migration Policy and the Promotion of Accelerators

Leading directly from the above point is the fact that, notably, there was little evidence on major differences between the EEA and the non-EEA entrepreneurs in the use of accelerators. While a few EEA entrepreneurs did express their temporary preference of the UK as compared to any country beyond the European continent due to the geographical convenience to their home country, as well as commented more generally on the lack of visa restrictions and the ease of hiring high skilled talent from their home country, the majority of the entrepreneurs nevertheless applied to business accelerators around the world, and simply went where they were accepted. Furthermore, nationality did not appear as salient in the way different entrepreneurs expressed their preference for business accelerators as opposed to traditional forms of resource mobilisation. These findings may then be considered with the fact that the substantial challenges that the majority of the entrepreneurs also faced with respect to their use of the accelerators as well as with respect to operating in the UK were also largely not dependent on migrant status but rather indicative of the 'nature' of the 'entrepreneurial ecosystem' in the UK. For instance, the experiences of the entrepreneurs highlight factors such as the country's overall regulatory framework, inability to get adequate funding in a short period of time, and lack of motivation from the high skilled workforce to 'risk' working for a startup thus affecting their ability to hire the right talent for their firms. Therefore,

if policy intends to promote economic development of the nation by attracting the brightest and most innovative migrant entrepreneurs to the country to the exclusion of all others, yet at the same time attach conditions to then ensure that only, 'the best and brightest' (as policy promotional literature has 'popularly' dubbed them) to stay back, it may then be argued that policy is in dire need of being revisited. This is because the challenges faced by the entrepreneurs were indicative of the nature of tech and the tech startup ecosystem in the UK rather than migrant status. Thus, a reliance on accelerators in promoting innovation within the country seems to be short-sighted, as policy should be targeted at other aspects of the entrepreneurial ecosystem, the key of which is a need to first and foremost refine the additional terms and conditions attached to the Tier 1 Entrepreneur and Graduate Entrepreneur visas.

7.3.4 Accelerator Selectivity

While accelerators might be useful tools to strategically select from a large pool of innovators, the excessive selectivity expended by the accelerator can be counterproductive. Entrepreneurs indirectly face two levels of selectivity by the accelerator. First, the innate competitive nature of accelerators to be accepted onto the programme is subject to selectivity. And second, the 'competitive' nature of negotiations between the accelerator and the entrepreneur to receive an equitable deal, forms yet another layer.

However, equity-based accelerators with variable investment conditions place entrepreneurs 'at the other end of the table'. This counteracts the perception of support that accelerators aim to provide. The venture capitalist nature of this transaction simply means that entrepreneurs get more than the basic form of support an entrepreneur

would normally get from a traditional angel investor or venture capital investor. Since all the ventures in the accelerator's portfolio of investments are bound together for a number of months, the differences in terms of investment for the exact same services offered has a tendency to create animosity. This proves to be counterproductive to the benefits of relational learning and socialisation into the country that entrepreneurs have the potential to gain when in close contact with other entrepreneurs on the course. Thus, it might be beneficial for the entrepreneurs, accelerators, as well as for the retention of this innovation, if accelerators were potentially mandated to offer standardised programmes with identical conditions to all to ensure transparency and create trust.

The evidence provided in this thesis opens up the discussion on the use of accelerators in deepening cross border ties of individuals, as well as the need to re-evaluate migrant entrepreneurship from a singular host country perspective. Therefore, this thesis concludes with offering avenues for further research.

7.4 Avenues for Further Research

First, the aim of this thesis was to evaluate the phenomenon of policy driven migrant entrepreneurship from the perspective of the individuals it affects. However, business accelerators are increasingly going global, with programmes not only being run simultaneously in multiple locations but also through partnerships with global venture partners. Therefore, further research should attempt to gain a better understanding of accelerators beyond their 'local' character. In doing so, it could attempt to gain a better understanding of the multi-nationality of the accelerator as a transnational space in itself.

Second, considering the re-migration of a number of entrepreneurs taking their businesses with them away from the country, the thesis opens up a potential debate on how governments 'pick winners'. Therefore, using a larger sample, further quantitative research could look at the real impact of these businesses on the economy. This could also be done using longitudinal studies, since accelerators are a new policy tool, and to date there are no studies to indicate what the impact of their activities is likely to be in the medium or long term. However, within this same debate, policy related research is needed to also understand the implications of accelerators beyond economic growth.

Finally, with changing migration regimes resulting from global economic and political changes, there is no way to predict whether business accelerators will continue to be popular as migratory tools or even be promoted by policy in advanced economic nations. Therefore this thesis ends with the final suggestion that any additional research should aim at examining accelerators beyond the UK context, especially from the perspective of emerging economies.

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Appendix A -- Topic Guide

Part 1 -- Background

- Could you please tell me a little bit about your business? When did you start it? Why did you start this venture?
- Are you on the Tier 1 Graduate Entrepreneur/Entrepreneur Visa? If so, what was the application experience like?
- Is this your first venture? If no, then could you please provide some information on the nature of your previous venture(s)?
- What motivated you to become an entrepreneur?
- Have you received any specialist business training?

• Accelerator --

How did you hear about this accelerator?

Why did you apply to the accelerator?

What was your overall experience on the accelerator?

Did you apply to another accelerator prior to this? Or perhaps another one after?

Part 2 -- Market and Financial Resources

- What attracted you to the British start-up environment for your business?
- In your personal opinion, do you feel there is heavy competition in your field? Are there any sub-sectors of tech where you feel there is an over or under population of start-ups?
- Had you considered other countries before setting up in the UK? Once established, did you ever considered moving the company to another country?

• Accelerator:

Did the accelerator help with finding:

- A. suppliers
- B. manufacturers
- C. potential customers
- D. Investment

Was it useful? How so?

• Did you apply for any other funding? If so, at what stage of your business did you apply and what was the process like?

Part 3 -- Social Resources

• What are your personal views about networking in general? Do you think any particular kind of networking is more helpful than another?

- Accelerator -- Did the business accelerator help you with networking for your company? How so? Did you find it useful?
- Are you a member of any professional network? Are these networks sector/trade specific? Could you please provide information about its membership?
- Do any of your family members work with you? How have social networks (friends, family and acquaintances) helped you in setting up and/ or running your business?
- How did you meet your co-founders (if any)?
- Did social media help you in starting your business? If so, which websites, and how?
- Were online entrepreneur forums helpful? If so, which ones, and how?
- What is the current size of your business? When did you hire your first employee and in what capacity? How did you advertise this position?
- Are you part of any professional or entrepreneurial networking groups in your country of origin?

Part 4 -- Other

- Did you feel that going through the accelerator helped you in accessing other mainstream resources later on?
- How has your experience as an entrepreneur been? Have you had any other major challenges as an entrepreneur?
- Do you personally feel there is adequate support from the government for budding entrepreneurs? Has it been helpful to you personally?
- Are there other factors that affected the start up and running of your business that you could shed some light on?
- Considering the changing landscape of entrepreneurial resources, do you feel there are other resources out there now that might have been beneficial to you personally when you were first starting your company?

Appendix B -- Interviewee Profiles

Removed for Online Publishing

Appendix C -- Thesis Summary

UNIVERSITY OF SUSSEX

Alia Noor

Thesis submitted for the degree of Doctor of Philosophy in Management

High Skilled Migrant Entrepreneurship in the Technology Sector: Business Accelerators and the Opportunity Structure

Abstract

Situated at the intersection of migrant entrepreneurship and high-tech entrepreneurship studies, this thesis examines the ways in which entrepreneurs negotiate their experiences using business accelerators officially endorsed by the British Government. To do so, this research uses a 'mixed embeddedness' framework due to its relational nature, whereby both structure and agency are taken into account. However, due to its lack of specificity on resources and institutions within the tech sector, this research also draws on the concept of the 'entrepreneurial ecosystem'.

Drawing empirically on interviews with 45 entrepreneurs who have taken part in the aforesaid business accelerator programmes in the United Kingdom between 2011 and 2016, the thesis finds that the business accelerators shape the structure of opportunities available to high-tech entrepreneurs at the macro, meso and micro levels. At the macro level, accelerators are one of the few remaining routes for new migrants to start a business, highlighting a selective migration regime where legislation also invariably dictates the kinds of businesses it prefers. However, through 'accelerator hopping', entrepreneurs actively used them to gain quick access to new markets, thereby shaping the opportunity structure at the meso level. And at the micro level, business accelerators were seen to provide access to resources.

The findings of all the chapters taken together highlight the need for broadening our understanding of institutional frameworks that shape opportunity structures as being 'mostly national in character'. The thesis highlights that the entrepreneurs operate in transnational social spaces which have been mediated through the use of business accelerators. This has indirectly led to the creation of a kind of transnational entrepreneurship which goes beyond the entrepreneur's ties between home and host country, or even diaspora based linkages. Accordingly, the thesis also questions whether the heavy focus on accelerators as important ecosystem actors is warranted. Furthermore, the research indirectly has implications towards understandings of migrant integration, as the broader opportunity structure thus created makes for an entrepreneurship which can now be truly borderless.