DOCTOR OF EDUCATION (EDD)

Employability in the Liberal Arts

A Comparative Case Study of Two Universities in the UAE

Batra, Alizeh

Award date:
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University of Bath

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Employability in the Liberal Arts: A Comparative Case Study of Two Universities in the UAE

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Declaration of any previous submission of the work

The material presented here for examination for the award of a higher degree by research has not been incorporated into a submission for another degree.

Candidate's signature

Declaration of authorship

I am the author of this thesis, and the work described therein was carried out by myself personally.

Candidate's signature

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Acronyms and Abbreviations

ABET Accreditation Board for Engineering and Technology
CAA Commission for Academic Accreditation
CEO Chief Executive Officer
COVID-19 Coronavirus Pandemic
CV Curriculum Vitae
DA Departmental Assistant
ECA Extra Curricular Activities
HR Human Resources
IRB Institutional Review Board
IT Information Technology
MNC Multinational Corporation
PR Public Relations
ROI Return on Investment
STEM Science, Technology, Engineering, and Mathematics
UAE United Arab Emirates
UK United Kingdom
US United States of America
VoIP Voice over Internet Protocol
WIL Work Integrated Learning
4IR Fourth Industrial Revolution

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And now to putting these skills to use, finding a new purpose in life, and a new excuse to dodge social obligations.

Abstract

In its traditional role, the university was perceived as a hub for knowledge-creation, teaching, and research. Higher education was afforded primarily by the elite and seen as a means of transmitting culture. The liberal arts, in particular, were seen to add cultural, social, and intellectual capital to graduates. Over time, and specifically with the advent of the Human Capital Theory, workers' employability came to be seen as the focus of higher education. Disciplinary and vocational knowledge took precedence as employability became a primary reason for enrolling in higher education. Now, graduate employability is seen to be of utmost importance as careers become non-linear and technology makes several entry-level jobs redundant.

This is a comparative case study of employability at two liberal arts institutions in the United Arab Emirates. This study aims to explore how employability is conceived, embedded, and enacted by the respective administrative offices and the leadership, faculty, students, and alumni of the civil and computer engineering programmes at each institution. It intends to portray a cohesive picture of employability, while offering insights into comparisons and contrasts where possible. In particular, the liberal arts focus at both institutions adds a unique layer of analysis to this study, since science- and technology-based disciplines are typically regarded as vocational subjects, unlike the liberal arts.

Findings suggest that both institutions conceptualised employability differently, one with a traditional notion and the other with a more contemporary view. The liberal arts were seen to offer immense potential in aligning graduate identities with careers of the future. However, the meaning and relation of a liberal arts philosophy to science- and technology-based disciplines was unclear to some key stakeholders. Finally, structural forces in the local labour market, non-linear careers, economic and cultural factors, and hiring models specific to this region were found to significantly impact graduate employability at the two institutions in question.

Chapter 1. Introduction

Akkermans and Kubasch's (2017) analysis of four core career journals revealed that employability was the top third trending research topic between 2012 and 2015. In particular, employability has come under the spotlight because of a perceived or real, mismatch between graduate competencies, skills, and employer requirements, as well as inadequate graduate transitions to the workplace. This thesis studies the topic of employability; how it is conceived, implemented, enacted, and evaluated in a university setting (Caballero, Vásquez, and Quintás, 2015).

1.1. Contextualising this study

The idea of this study originated from my personal interest in graduates' transitions from academia to industry. My motivation to comprehensively research this topic originates from the belief that employability serves as a mutually beneficial way to uncover and bridge any gaps between academia and industry (KU University Career Center, 2014). Previously, I have conducted a small-scale study on the views of employers and faculty members regarding what they considered to be key employability skills for the United Arab Emirates' (UAE) economy (Batra, 2021). Findings from that study indicated that communication skills were the top desired category in recent graduates, although the way they were operationalised depended on the type of stakeholder. Embedding employability into the curriculum in the form of Work Integrated Learning (WIL) was reported to be the most effective way of bridging this skills' gap. However, my previous project did not explore the views of the ultimate beneficiaries of industry-academia partnerships: students and graduates. Therefore, I wanted to draw on these findings and lessons and take them forward into a larger case study. This thesis is conceived as a comparative case study of selected undergraduate programmes at two liberal arts institutions in the UAE. It aims to explore the perceptions and experiences of various academic stakeholders as they relate to the operationalisation of employability.

The population in the UAE is predominantly expatriate, with nationals making up a small minority. Consequently, there is a strong imbalance between public and private sector employment, with the public sector being dominated by nationals and vice versa. Similar to other Gulf countries, this demographic feature also imposes a vast divide between local and expatriate student enrollment in higher education (Al-Ali, 2014; Belwal, Priyadarshi, and Al Fazari, 2017).

The higher education landscape in the UAE is diverse and varied. As of 2018, there were seventy-six institutions licensed by the Ministry of Education. These included public and private universities, including international branch campuses, that were deemed fit to be degree-granting institutions (UAE Ministry of Education, 2018). In general, public universities are known as federal universities, and are predominantly attended by national students, or *Emiratis*. There are a few private universities and several branch campuses of international universities across the UAE. These typically have separate bridge programmes for *Emirati* students, who may be unprepared to join university after graduating from public schools (Al-Ali, 2014). The UAE is known to host the largest number of international branch campuses compared to any other country in the world (Mackie, 2019; Wilkins and Balakrishnan, 2013). Universities in the UAE do not directly compete with each other. Instead, each university serves as its own community, owing to the unique conditions surrounding them (Caballero, Vásquez, and Quintás, 2015).

The UAE's higher education sector follows a 'glonacal' approach, catering to trends in neoliberal economies, international education and globalisation, while trying to maintain local culture and values. The higher education sector, and related employability developments in the UAE, are new and constantly evolving (Hijazi et al., 2008). The National Qualifications Authority in the UAE has identified seven core skills and eight generic skills to be integrated into the higher education curriculum (Al-Kayyali, 2017). Universities may also publish their own employability outcomes (see Al-Kayyali, 2017 for a detailed description of employability outcomes published by federal universities in the UAE). These factors, combined with the infancy of the higher education sector, have

meant prescriptive quality assurance processes and a lack of standardised governance over higher education, especially owing to the flexibility allowed in ‘free zones’, or free trade areas, where most private and international universities operate (Al-Ali, 2014; Alsharari, 2018; Ashour, 2017; Findlow, 2005; Jose and Chacko, 2017).

Several instances of this can be observed through literature emerging from the UAE and surrounding regions. For example, Al-Haddad and Yasin (2018) described the unique challenges being faced by Arab economies in implementing the employability agenda. In particular, universities tend to have poor relations with each other, let alone with employers. They are not governed by unified standards and focus on traditional teaching methods and philosophies, emphasising rote memorisation instead of critical thinking. New educational programmes are usually introduced on an ad hoc basis because management and leadership techniques are also old fashioned. Finally, academic strategies are not cohesively designed, making it challenging to implement employability plans holistically across such countries.

Raja (cited by Zaman and Masudi, 2018) believed that while jobs in the UAE continue to become automated, it is essential to teach graduates the skills to understand, develop, and operate machinery and technology that is replacing human work. Aligning the purpose and strategies of universities and employers may be one way to bridge communication gaps, particularly because a university’s purpose, as defined in the mission, affects its employability offering (American University in Dubai, 2016; Martin and Lee, 2018; Sin and McGuigan, 2013). In realising the true potential of employability initiatives for students, graduates, universities, firms, and economies, a viable solution is to develop cohesive relationships within specific communities of practice, which describe long-term strategies and explicitly state the roles and responsibilities of each player in these communities (Al-Kayyali, 2017; Higdon, 2018; Savga, 2013; Shay, 2016).

Despite the challenges that exist in a landscape currently in its infancy, Al-Atiqi and AlHarbi (2009) and Ashour (2017) suggested that the UAE’s higher education sector is

the most active in the region in terms of quality assurance, and is trying to align itself with local and international accreditation requirements and best practices. In doing so, forming affiliations with western universities and opening international branch campuses has been one strategy in order to build social capital for the UAE's higher education sector (Al-Ali, 2014).

1.2. Scope of this study

Employability in this thesis will be defined through the lens provided by Becker (1992) and Tomlinson's (2017) research. The emphasis will be on studying how individual sets of skills, dispositions, and personal attributes are developed through the university experience, in order to enhance human, social, and personal capital. Therefore, the purpose of higher education adopted for this thesis will be of exploring whether the traditional and modern roles of the university can be seen as complementary, rather than mutually exclusive (MacKay, 2010; Maurer and Mawdsley, 2014). This study aims to contribute to UAE's employability literature both in terms of the depth of views elicited from participants and also the methods used to study employability from a qualitative lens.

Conceptions of employability are seen to be rooted in sociopolitical agendas, which are often difficult to uncover using quantitative methods that possibly restrict the wider impact of evaluation by isolating factors that affect employability (Harvey, 2006; Peters and Lam, 2015). One way to overcome this is to study employability through a qualitative lens (James et al., 2013). This can allow varying perspectives to be represented and for new information to surface, adding depth to the findings (Friedensen, McCrae, and Kimball, 2017; Kinash, McGillivray, and Crane, 2018; Knight and Yorke, 2003; Mbabazi, 2013; Thompson et al., 2013). It can also allow participants to tell their own stories, in their own words, consequently allowing me to understand their experiences more authentically. Finally, the voices of those at the ends of the spectrum can be heard through these methods, in contrast to quantitative research where, too often, it is easier to represent majority-held views (Friedensen, McCrae, and Kimball, 2017). Keeping these

considerations in mind, this study will use a qualitative lens to answer the following, broad, research question:

In what ways is employability embedded in, and enacted through, the curricular principles and university experience at two liberal arts institutions in the UAE?

In particular, this study will answer the overarching research question by specifically addressing the following sub-questions:

- *What are the perceptions and experiences of various higher education stakeholders in relation to the employability of graduates?*
- *What is the meaning and value of a liberal arts undergraduate education for employability?*
- *What challenges and opportunities do stakeholders face in shaping graduate identities?*
- *Overall, how successful are these two institutions in developing graduate identities vis-à-vis the strengths, opportunities, and threats they face?*

In this context, the concepts of embedding and enactment will be unpacked as follows. Embedding will refer to curricular and extra-curricular policies and practices that specifically relate to employability, as suggested in the literature. For example, compulsory modules or courses that build students' industry knowledge and skills. Enactment will refer to the ways in which various types of stakeholders depict the importance of graduate employability through their beliefs and actions. For example, this can be exemplified through the importance faculty members place on graduate employability, the likelihood of students engaging in voluntary programs to enhance their employability, or the propensity of career centres to stay ahead of industry trends.

The embedding of employability will be explored through the perceptions and experiences of stakeholders and the rationale behind employing a liberal arts curricular philosophy. The enactment of employability will also be explored through the

perceptions and experiences of various stakeholders as they relate to graduate employability, as well as by understanding specific opportunities and challenges they encountered in their employability journeys. The final research question will be a test of the interplay between these two concepts, as it relates to understanding how effectively efforts towards building graduate identities transfer into the workforce. In addition, I will operationalise these two concepts in section *3.4.3. Online semi-structured interviews*, by describing how they translated to the selected research methods and specific interview questions. Furthermore, in section *7.1. Reflecting on the research questions*, I will briefly reflect on the overall findings of this study in relation to these two concepts.

This study will focus on two key players in the UAE's higher education sector, both with a liberal arts outlook underpinning their programmes of study. One of these universities has a local outlook, meaning that the enrolled students are usually from the UAE, Middle East, or nearby South Asian countries, and typically go on to work in the local workforce upon graduation. This university follows the American curriculum and some faculties are accredited by international bodies. The second university has a global outlook and is an international branch campus of an American university. The university predominantly has international students enrolled, some of whom go back to their home countries, while others go on to work in the UAE or international labour markets upon graduation. The former will be known as *Homegrown* henceforth, while the latter will be referred to as *Glocal*.

Both selected institutions offer a liberal arts education, are research universities, and are primarily focused on undergraduate study, although they do offer selective graduate programmes. However, the current study will address undergraduate employability, since those programmes are the prime focus of operations at both universities. These similarities and differences will enable a comparison of employability development, dissemination, and evaluation strategies. The universities in question will be described in greater detail in section *3.3. Sampling procedures: Selecting the two cases.*

This chapter highlighted the importance of employability research in the region and situated the two universities in the current study within the higher education landscape of the UAE. The next chapter will provide a comprehensive review of literature, both historic and contemporary, on the role of higher education and will aim to locate employability within those conceptions. *Chapter 3. Methodology* will explain my positionality as a researcher, the research methods and sampling procedures used, descriptions of the two cases, and the impact of the COVID-19 pandemic on the research design. *Chapter 4. Findings: Homegrown*, *Chapter 5. Findings: Glocal* and *Chapter 6. Analysis and discussion of findings* will then present the findings of this study, first through visual concept maps and thematic analyses, and then through comparative analyses of the findings in light of employability literature. Finally, *Chapter 7. Critical reflection and conclusion* will reflect on the limitations of the current study and offer insights to advance employability research, before offering concluding thoughts.

Chapter 2. Review of the literature

This chapter draws on a review of multidisciplinary research, in order to give a comprehensive account of trends and opportunities in studying undergraduate employability. When reviewing the employability literature relevant to the scope of the current study, four overarching themes emerged. Namely, the debate surrounding the purpose of higher education; conceptions and models of employability; pedagogy focused on employability; and, stakeholder relevance in employability initiatives. Specific topics from each of these themes, aligned with the scope of the current study, will be reviewed in turn, so that the emerging literature can provide a cohesive foundation for addressing the research questions listed in section *1.2. Scope of this study*.

The next section will examine the debate on the purpose of higher education and how it has changed over the last few decades. In doing so, it will highlight the original purpose of higher education and the tension created by the view that it is now in the service of the economy and, in particular, of educating students to be employable. Equal weight has been given to each study reviewed, owing to the diversity in topics and methodology across the discourse (Creswell, 2013; Gray, 2014).

2.1. The evolving purpose of higher education

In the traditional role of higher education institutions, universities were at the centre of knowledge creation, where students would select a discipline of study in order to acquire specific knowledge and skills (Ferns and Lilly, 2015; Harvey, 2000). Humboldt referred to this purpose as “the pursuit of impartial truth through research and teaching” (cited by Sin, Tavares, and Amaral, 2017, p. 2). There was no concept of a labour market per se, but higher education was afforded by the elite and allowed the transmission of culture for the ruling class. The assumption was that employment would follow education, owing to students’ family position and schooling. Generic skills were not seen to be a focus of university education. Liberal education, as defined by broad,

philosophical disciplines of study, was seen as the core of universities, helping them exert power over the labour market (Boden and Nedeva, 2010; Oria, 2012).
For the working class, human capital was measured in quantity, as demonstrated by factory and production work. This trend highlighted that essentially, factory workers were not required to use their intellect. Likewise, white-collar workers were involved more heavily in “paper-pushing tasks” rather than intellectual ones. Labour was typically undifferentiated prior to the 1960s, with skilled and unskilled workers grouped together. Brown, Lauder, and Ashton (2011, p.16) highlighted how, over time, labour productivity became a function of quality as opposed to the quantity of work, owing to the shift towards a knowledge economy. They described this as the transition “from muscle power to brain power”.

2.1.1. Starting with the Human Capital Theory

It was Becker’s initial work that made the distinction between specific and general skills that represented human capital, where specific human capital was invested in, and taught by, employers to employees because it was not seen to be transferable to other organisations. This potentially explained why employees with firm-specific knowledge were less likely to leave their jobs or get laid off in a recession, and most promotions were filled by employees within the organisation. This was not true of general human capital which was transferable and allowed other companies to poach employees. Becker suggested that, as technological advancement transformed jobs, workers found it profitable to acquire general skills. Consequently, this raised the demand for education. Becker termed this phenomenon Human Capital Theory (Becker, 1992).

This theory posited that humans are essentially a form of capital, or “professional infrastructure”, just as equipment is a form of physical infrastructure for business operations (Watts et al., 2006, p. 43). Therefore, investing in education, skills, and training was seen as a form of improving the capability of humans to contribute to economic growth through greater productivity (Becker, 1992; Bourner, Greener, and Rospigliosi, 2011; Brown, 2003a; Brown, Hesketh, and Williams, 2004; Brown, Lauder,

and Cheung, 2020; Cai, 2013; Frankham, 2017; Gao, Baik, and Arkoudis, 2015; Harvey, 2000; Krumboltz and Worthington, 1999; Matherly and Tillman, 2015; Maurer and Mawdsley, 2014; Morrison, 2014; Pavlin and Svetlicic, 2012; Sin and Amaral, 2017; Tomlinson, 2021a; Woollard, 1995). The Human Capital Theory claimed that, as more educated graduates entered the labour force, they would receive higher returns on their work as employers benefited from increased productivity. This would give rise to a new, upward point in the supply and demand equilibrium for jobs (Becker, 1992).

As the idea of knowledge and skills impacting productivity gained momentum with the advent of Human Capital Theory, higher education took centre stage in developing quality workforces. Here, knowledge was seen as the core of competitiveness, and this theory was popularised through an increase in globalisation and economic competition in a knowledge economy (Humburg, van der Velden, and Verhagen, 2013; Lauder at al., 2012; Morrison, 2014). As the emphasis on higher education institutions being a crucial player in economic success grew, so did that on producing employable graduates. Hence, the notion of employability became synonymous with skill development for an employable workforce (Rothwell and Rothwell, 2017; Tomlinson and Holmes, 2017).

2.1.2. The Human Capital Theory's missing links

Authors from the Anglosphere have emerged as the dominant economists and scholars in employability research (Brown and Lauder, 2006; Brown, Lauder, and Cheung, 2020; Fallows and Steven, 2000; Harvey, 2005; Kalfa and Taksa, 2015; Knight and Yorke, 2004; Tomlinson, 2017). This is because neoliberal regimes have been at the forefront of emphasising that education should be seen in the service of the economy. Under neoliberal principles, free markets were seen to offer a fair opportunity for rewarding talent and effort, encouraging people to upgrade their skills and qualifications, and improve their market value (Brown, Lauder, and Ashton, 2011; Brown, Lauder, and Cheung, 2020). Based on the literature, this trend does not seem to prevail across the world, making the employability literature geographically skewed, and situating

employability as a key criterion for higher education success in some, but not all, countries.

Changing economic conditions in the past few decades have forced academia, industry, and governments in neoliberal economies to work closely together, in what is known as the triple helix system of governance (Ishengoma and Vaaland, 2016). McCowan (2015) argued that, despite the traditional roles of universities developing knowledge, we cannot deny that they fulfill diverse requirements including meeting the needs of government, industry, and community. West (2000) described five ways in which the academy and the labour market significantly interact with each other: when employers hire students; when universities and employers engage in research and development; through universities fostering skills and abilities in students; by deliberately pairing study programs with training for specific occupations; and, by higher education acting as a sorting mechanism for categories of graduates.

Baker (2012) also suggested that higher education can be tied directly to employment. This is so because the changing nature of work, whereby new forms of management necessitate a range of complex skills, produces a change in the demand for education. Universities have much to gain from developing cooperative relationships with employers, and vice versa. However, employers do not want to engage and invest in graduate training, either because they do not want to spend resources, or because they prefer “plug and play” employees, given the intensity of competition and rapidly changing work conditions (Brown, Lauder, and Cheung, 2020; Tymon and Batistic, 2016; Warhurst, Tilly, and Gatta, 2017).

Researchers caution that credentialism should not be looked at as an increase in knowledge because it does not allow for the supply-demand equilibrium to readjust organically (Brown, Lauder, and Ashton, 2011; Brown, Lauder, and Cheung, 2020). Tertiary education is now more easily accessible than ever before and has produced many more graduates than there are jobs. In fact, there are increasing numbers of employees working in jobs for which they are overqualified, leading to credential

inflation (Brown, Lauder, and Cheung, 2020; Tomlinson, 2017). Furthermore, while many firms state that intellectual capital is their driving force, a majority of the job roles do not require highly skilled workers (Brown, Hesketh, and Williams, 2003). Brown, Lauder and Ashton (2011) proposed the idea of a “global auction” of jobs, where leading economies of the world would be known for high-quality jobs requiring high skills, and low-paying economies would retain the low-skills’ jobs, shaping some as ‘magnet’ economies for skilled graduates.

There is already widespread inequality in higher education across the world, as university graduates tend to secure better jobs, earn higher salaries, and become more influential in comparison to non-graduates, albeit with inequalities based on gender, ethnicity, and class (Brown, Lauder, and Ashton, 2011; McLean, Abbas, and Ashwin, 2018). At the same time, elite universities enable graduates to earn higher premiums, although attending them does not provide any indication of the quality of education received. The “global auction” for jobs has meant that the elite higher education institutions purposefully select what they perceive as top talent in terms of students (Brown, Lauder, and Ashton, 2011; Brown, Lauder, and Cheung, 2020; Rivera, 2015).

High-income economies also benefit from being able to set up higher quality educational institutions (McLean, Abbas, and Ashwin, 2018). This, in turn, signals to employers that the ‘best’ graduates are from these institutions, creating disparity in opportunities for early graduates in the labour force. This is confirmed by Lee, Foster, and Snaith (2016) who found that elite universities discussed and catered to the employability agenda more often than other universities did, as they had more cultural and social capital compared to lower ranked universities. Their employability offerings, in turn, helped to signal graduates’ abilities to future employers (Cranmer, 2006; Morrison, 2014; Rospigliosi et al., 2014; Tomlinson, 2012). Therefore, amongst several criticisms faced by Becker, a key criticism was that he assumed there was a direct relationship between skills acquired and job demands. What he failed to understand was the credential inflation that comes with positional competition.

Human capital theorists further assumed that Becker's (1992) economic view was universally applicable. Lauder et al. (2012) and Brown, Lauder, and Cheung (2020) challenged human capital theorists on the basis that this theory has not translated into economic success. The theory assumed that the supply of employable graduates would elicit its own demand, as employers tried to capitalise on graduate skills. However, research now suggests that stark inequalities exist in labour markets across the world, with a mismatch of job supply and demand, and easier access to employment opportunities for graduates from advantaged backgrounds (Brown, Hesketh, and Williams, 2003; Brown and Lauder, 2009; Francis, 2015; Holmes, 2013; Matherly and Tillman, 2015; Maurer and Mawdsley, 2014; Merrill, 2015; Nilsson, 2017; Rivera, 2015; Tan, 2014; Tholen, 2015).

In fact, there are wide disparities within labour markets as well, characterised by graduates' abilities to gain a return on their investment into higher education. Britton et al. (2020) estimated that that those in Science, Technology, Engineering, and Mathematics (STEM) degrees gained the highest average returns on their degrees, compared to those studying creative disciplines. STEM-based disciplines sometimes benefit by being organically employable due to their vocational content (Muller, 2012). In such disciplines, the link between academia and industry may have been stronger to begin with (Fallows and Steven, 2000; Jones, 2001; Jones, 2013; Martin and Lee, 2018; Mason, Williams, and Cranmer, 2009; Minocha, Hristov, and Reynolds, 2017; Speight, Lackovic, and Cooker, 2013; West, 2000). To the contrary, disciplines such as the arts and education lend themselves more to the values associated with liberal education (Harvey, 2003; MacKay, 2010).

Even then, in Britton et al.'s (2020) research, the subject studied did not guarantee high returns, and this was further impacted by university reputation and gender. Some researchers question whether academic departments that are traditional in nature can teach skills that are considered to be modern, such as interactive media, sustainable engineering, and combinations of disciplines not common or relevant a few decades ago (Bridges, 2000). Furthermore, contrary to the guiding assumption of the Human

Capital Theory, it could be that some students seek to pursue their interests, through and after higher education, rather than seeking high returns in the labour market.

In summary, Human Capital Theory cannot adequately predict the supply-demand misalignment of qualified labour that leads to credential inflation and mismatched career placement. At best, it may be able to signal, rather than predict, graduates' earnings and career pathways (Tomlinson, 2021b). The human capital approaches to education have been criticised for threatening the original mission of universities, assuming transferability of skills to the workplace, and overemphasising economic gains resulting from an increase in credentials (Kalfa and Taksa, 2015; Lauder, Brown, and Cheung, 2018; Leong, 2016). Nevertheless, employability is still used as a key performance measure of success in neoliberal economies, and those that want to follow suit.

Some researchers, such as Clarke (2017), have argued that by and large, universities have accepted employability as one of their main operational focuses. Others, such as Cranmer (2006) and Tymon (2013) believed that the modern concept of a university blurs the distinction between education and training, where the latter should be provided at the workplace. However, it may be that higher education on its own is not sufficient to prepare graduates for the workforce, and a combination of education and on-the-job training is necessary for workers to perform their jobs effectively (Kettis et al., 2013; Panagiotakopoulos, 2012; Parker, 2003; Tomlinson, 2008; Tomlinson, 2012). For example, Burke et al. (2017) found that the addition of skill acquisition gave graduates an edge over others, as degrees were not seen to be adequate on their own in ensuring employability. Tymon (2013) took this debate further by questioning whether universities should, principally, be focusing on employability at all.

Some reports suggest that students themselves are enrolling in higher education to become employable. According to the 2016 Gallup-Purdue Index Report, 86 per cent of incoming freshmen in the United States (US) reported joining university as a means of securing employment later. This shows that students and graduates believe in employment and employability as a primary purpose of university operations,

specifically in neoliberal countries (Wolff and Booth, 2017). It is particularly important to keep in mind what students believe their own reason for attending higher education is, because it shapes their relationship with knowledge, and how they make sense of their personal university experience (Ashwin, Abbas, and McLean, 2016).

Savga (2013) and Holdsworth and Hegarty (2016) argued that, rather than evaluating the efforts put in to the system, the focus of higher education reform has been on ensuring that policy changes have been met. This automatically shifted attention to fulfilling the requirements of the labour market, rather than concentrating on education and curriculum development decisions (Gilworth, 2013; Precision Consultancy, 2007; Wilton, 2008). Mcarthur added that, “the problem for [higher education] is not the trend towards it having an economic role, but rather the narrowness of the way in which that role is conceptualised” (2011, p. 738). The debate, according to Mcarthur has been narrowed down to the exchange value of graduates, instead of the human characteristics they can bring to the workplace. Therefore, it may be better to say that the emphasis on different aspects of higher education has changed, rather than the entire purpose of the university.

Brown (2003b) asserted that, in reality, the relationship between skill development and economic prosperity is messy. When higher education institutions operate as economic service organisations, rather than a pool of scholars creating, debating, and disseminating knowledge, it poses several internal and external challenges (Kalfa and Taksa, 2017; Martini and Fabbris, 2017; Reale and Primeri, 2015; Vanhercke et al., 2014). It also reshapes stakeholders’ roles and involvement in teaching and learning.

MacKay (2010), Maurer and Mawdsley (2014) and Husni (2018) proposed that traditional and contemporary notions of the purposes of higher education are not mutually exclusive. Rather, they are complementary in nature, where all stakeholders stand to benefit (KU University Career Center, 2014; Little, 2001; Minocha, Hristov, and Reynolds, 2017; Stoner and Milner, 2010). For example, when setting employability agendas, such as those for the Bologna reform, policymakers did not come up with an

entirely new set of skills deemed relevant to the changing landscape of the labour market. Instead, the balance in teaching certain skills and subjects, and merging them across disciplines in line with the needs of the knowledge economy was fine-tuned, as universities started designing curricula around professions (Wagenaar, 2014). Similarly, "the Melbourne Model", proposed by the University of Melbourne, redesigned the purpose of the curriculum to involve students in social, cultural, and ethical responsibilities and connect with the wider environment, in order to enhance graduates' workplace readiness. In essence, "the model [was not focused on] academic learning *and* learning for employability but learning for employability *through* the academic discipline" (Speight, Lackovic, and Cooker, 2013, p.115).

Determining the purpose of higher education unique to each institution, and finding the balance between employability and liberal education, is essential as it has profound implications for curricular orientations, learning preferences, quality assurance, and employability outcomes (Dahlgren et al., 2008; Hayward and Fernandez, 2004; Khalid, 2017; Martini and Fabbris, 2017; Roberts, 2014; Roberts, 2015; Shay, 2016; Wagenaar, 2014; Waniek and Nae, 2017; Yorke, 2004). It can be inferred then, that as graduates become heterogenous, the relationship between higher education and the labour market is also becoming increasingly complicated (Hinchcliffe and Jolly, 2011; Pidcock, 2006; Tomlinson, 2012).

This section reviewed the intent and purpose of higher education as it was seen with the advent of universities, how universities gained economic importance, the debate surrounding employability as an essentially embedded function of higher education, and the criticisms relating to such approaches advocated by human capital theorists. The next section will revisit the purpose of higher education as a platform for the creation of intellectual and social capital, as it relates to contemporary societies.

2.1.3. The role of liberal arts in educating for knowledge economies

The concepts of ‘liberal’ and ‘vocational’ education have been a source of discussion and debate at least since the late 1980s, to understand the balance between higher education in the arts, humanities, and social sciences with employment-focused outcomes and that of technical education with complex, applicable, real-world skills (see Brennan and Silver, 1988).

Detweiler’s (2021, p.11) interaction with educators revealed that those from countries other than the US, used the term “American-style” and “liberal arts” education interchangeably. In fact, the term is used to indicate varying descriptions including the study of humanities-based subjects; the study of sciences and social sciences; the study of a range of subjects, including one subject in depth; the development of responsible citizens through education; and, the kind of liberal education that is typical of close-knit communities in residential colleges. Therefore, Detweiler (2021, p.12) proposed that, when evaluating liberal arts education, it is important to consider three aspects: the intended outcomes (*purpose*), the area or discipline or study and how it is structured (*content*), and the educational environment (*context*). He proposed that, for an education to be truly liberal, it must meaningfully combine all three of these aspects in order to prepare graduates for lives of consequence, inquiry, and accomplishment.

Prominent US universities offering a liberal arts undergraduate education include Harvard, Yale, and Princeton University. Generally, in practice, this means that students are admitted into an undergraduate degree, rather than a specific discipline of study. Over one to two years, they take courses in various arts, humanities, and science-based subjects of their liking, before deciding on a discipline to specialise in. Therefore, students must learn about a broad range of disciplines of their liking, before studying one or two of them in greater depth and complexity. Institutions follow different guidelines for the ‘liberal’ years of study, with some requiring students to enroll in such courses to expand on their general education or knowledge, and others requiring them to use this opportunity to develop skills of deep study and reflection, critical analysis,

and communication. These prominent American institutions offer degrees across the arts, humanities, social sciences, engineering and other pure sciences, within an overarching liberal arts philosophy (see sections *4.1.1. About Homegrown* and *5.1.1. About Glocal* for an overview of how the two institutions in this study incorporated principles of the liberal arts into their curricula).

However, the liberal arts are perceived differently in the United Kingdom (UK). They are typically associated with broad disciplines of study, or more recently, specific courses, or an entire degree in the liberal arts (as in the case of Durham University). According to Wilson (2019), even though the idea of liberal arts courses is new to the UK, the idea is well established in the country. In fact, the move towards incorporating liberal arts approached into study by several Russell Group (research-intensive) universities across the UK, is seen to be inspired by American institutions (University of Warwick, 2022). In general, adopting a liberal arts philosophy to education is seen to promote research based, interdisciplinary learning and innovation. Despite this, STEM and pure science-based disciplines remain separate from liberal arts modules, at least in the UK.

The notion of liberal education, which was earlier seen to relate to broad disciplines of study in the arts, is now referenced as the “T-shaped curriculum” in contemporary literature. Shay (2016) referred to the T-shaped curriculum as a means of analysing how to balance the breadth and depth of topics in the curriculum of *all* disciplines of study, rather than specific disciplines in themselves. That is, a liberal arts-style undergraduate education that emphasises a broad study of both arts and sciences, in an environment where faculty and students pursue interdisciplinary study in a shared fashion (Lewis, 2018). This might be more beneficial than harmful to higher education, as students graduate with a holistic awareness of disciplines and skills (O’Connor, Lynch, and Owen, 2011; Muller, 2012).

Tucker (2015) argued that across disciplines, job market trends indicate a preference either for those who are specialised in highly technical fields, risking a career failure should the industry collapse, or those who have a breadth of generic skills with no

substantial career to follow. That now makes the “T-shaped” or liberal arts curriculum more important than ever, allowing graduates to be marketable workers and responsible citizens, while ensuring a technically sound education (The Wall Street Journal, 2019). Lewis (2018) agreed that a liberal arts education is particularly relevant for the twenty-first century as it allows for lifelong learning through collaboration, discussion, debate, critical thinking, and analysis, while also enhancing technical education. In fact, Adams (2021) argued that the drivers and practices of the liberal arts (and sciences) are more important now than they have ever been, precisely because of their usefulness and practicality. Of particular relevance to the current study was Adams’ belief that the pragmatic benefits of the liberal arts can be seen in context of work and economy, citizenship, cultural experiences, and morality. In particular, he reasoned that much of workers’ skills in an organisational context come from their “fundamental intellectual capabilities”, predominantly through powerful communication, analytical and integrative skills, meaningful imagination, and intellectual depth and breadth (pp.xi). For learners in STEM-based disciplines this means that, given the rapid change and uncertainty associated with societal, political, economic, and technological factors in globalised economies, embedding (and not just incorporating) liberal arts principles and practices into higher education may provide a cushion or even an edge above others, in several circumstances. These include, but are not limited to, the collapse of industries, technology permeating human-centred jobs, political instability, mobility restrictions, changing landscapes of traditional industries, the increase in non-linear or non-traditional career paths, or even just the desire of some graduates to work in leadership roles, enhance their entrepreneurial capabilities, or engage in the study of a discipline of interest for the sake of learning rather than employment.

This section reviewed the role of a liberal arts education and its value in educating for knowledge economies and careers of the future, particularly keeping in mind the assumptions and critiques of the Human Capital Theory. The next section will begin by offering insight into distinguishing between employment and employability, followed by an overview of models of employability in terms of skills- and identity-based ones.

2.2. Conceptualising employability

This section will define employability, differentiating it from employment and providing an understanding of how the concept is generally perceived in the literature. It will then provide an overview of contemporary models of employability.

2.2.1. Employment versus employability

After reviewing the extensive literature on employability, it is evident that there are varying and dynamic definitions of the concept. Matherly and Tillman (2015) summarised these as falling into two main categories: one centred around employment numbers and statistics and the other centred around the skills and competencies developed through formal education. Since the advent of the Human Capital Theory and universities assuming economic importance, employability has typically been measured using employment numbers. Therefore, from a measurement standpoint, the two concepts tend to be confused. The costs and effects of increasing skills in graduates are realised over the long-term, whereas employability is typically measured over the short-term through employment statistics. Statistics provide no means of understanding why some graduates might have more positional advantage than others, and why graduates with similar degrees may secure different quality jobs (González-Romá, Gamboa, and Peiró, 2018; Holmes, 2013). Even when employability is not measured through employment statistics, it is difficult to quantify because there are no consistent definitions spanning industries, countries, and contexts (Sung et al., 2013).

Arguing for a “duality” of employability, Brown, Hesketh and Williams (2003) proposed reconceptualising it as a fluid, rather than fixed, concept. They asserted that this fluidity is essential because employability varies with economic conditions and is neither a product of an individual’s own circumstances (supply) nor of workplace conditions (demand) alone. In absolute terms, employability refers to how well equipped a graduate is with regards to skills, competencies, and qualifications that match a certain job role. In jobs that require unskilled or semi-skilled workers, employees may be

interchangeable. The increased emphasis on positional competition shows a greater importance for this latter aspect of employability. Hence, in relative terms, employment and employability are dependent on the interaction between the supply of graduates and the demand for them, in any given market. Realistically, supply typically outweighs demand. This is further impacted by the fact that an individual's employability is dependent on that of competing candidates, where similar qualifications as well as psychological, social, and cultural factors influence the 'pecking order' of employability.

Likewise, Tomlinson (2017) framed employability as a dynamic, rather than static, concept. He suggested that employment refers to the objective outcome of a graduate at a particular point in time. That is, whether they are employed or not at a certain point in time after graduation. On the other hand, employability is a social construct, dependent on the relationships and networks graduates develop, as a continuous process. Whereby, developing professional identities can enable graduates to form adaptable conceptions of their careers and working lives by understanding employability as a dynamic concept. Furthermore, Harvey (2003) divided the term employability into two separate concepts, "employ" and "ability", highlighting the importance of both labour market and individual forces at play. However, the focus of employability research has been on the 'ability' aspect, aiming to empower the learner. This distinguishes it from employment, which relies solely on securing a job (Andrewartha and Harvey, 2017; Vanhercke et al., 2014).

The definitions reviewed so far, by orthodox economists like Becker, view employability as a somewhat fixed, measurable, and absolute concept. Other researchers view employability as a personal disposition, as described below.

2.2.2. Extending 'skills' in defining employability

Yorke (2006) defined employability is a set of skills, dispositions, and personal attributes that make graduates employable and more successful in their chosen careers relative to others in the same position. Wilton (2008) simply described employability as skills that

are transferrable to the workplace. According to Wilton, these are typically a combination of both technical and soft, or generic skills. However, the focus of the literature is on developing the latter since the former are usually taught through formal curriculum, or at the workplace.

Based on such definitions, credential inflation would depend less on the qualification itself, and more on the personal qualities that differentiate candidates from each other (Brown, 2006). However, measuring employability as the acquisition of soft skills is challenging because it is subjective and therefore, difficult to reliably quantify (Brown, 2003a; Mishra, 2014). Skills are operationalised differently depending on the stakeholder and context, and the meaning of the same skill may be different on a project-by-project basis, or between academia and the workplace (Batra, 2021; Holmes, 2001; Holmes, 2013; Martin and Lee, 2018; Stefanidis, Fitzegerald, and Counsell, 2013). Even where stakeholders' definitions of employability match, there is a risk of giving preference to some aspects of the skill over others (Smith, Ferns, and Russell, 2016).

There is evidence from studies in psychology arguing that skills' transfer occurs in varying degrees depending on the context of acquisition and practice (Cranmer, 2006) and that cross-disciplinary studies may increase transfer by providing such opportunities (Naidoo, 2012; Ruge and MacCormack, 2017). Cox and King (2006), Van Der Heijde and Van Der Heijden (2006), Robertson et al. (2011), and Tomlinson (2017) all agreed and their research showed that skills do not exist in isolation. In fact, skills for related career paths are similar and interconnected. Peeters et al. (2017) suggested that there may be an overlap between specific and generic skills, making them harder to measure. This raises theoretical questions about human capital as well as practical questions about designing pedagogy for employability.

To conclude, embedding skills across the curriculum means that there will be a common understanding of the knowledge to be disseminated (Jones, 2001). Additionally, it may be that skills are discipline-neutral but still not transferrable, or vice versa. In other

words, discipline-specificity and neutrality relates to subject content, while transfer relates to the application of any type of skill in the workplace (Jackson, 2009). Keeping these caveats in mind, Jackson and Tomlinson (2021) have suggested that employability research has witnessed a "reframing" from being focused on skills' acquisition to understanding graduates' relationship with the labour market and relevant stakeholders (p. 885).

In line with my own positionality as a researcher and the scope of this study, employability henceforth will be referred to in a fluid sense, encompassing not only graduates' and workers' qualifications, skills, competencies, and behaviours, but also the challenges, opportunities and structures of the labour markets in question.

So far, this literature review has focused on the debate surrounding the purpose of higher education, the necessity of a liberal arts education for current and future graduates as a means to studying for employability, and ways in which employability is conceptualised. The next section will review contemporary models of employability as they relate to the current study.

2.2.3. Models of employability: Skill development versus identity formation

Tomlinson (2021b) proposed that the study of generic skills and their relevance to employability is useful in liberal economies such as the US and UK where job tasks are not enmeshed in labour market structures. Under such circumstances, where tasks are not dependent solely on labour market conditions, skills can be transferrable across contexts. However, skills-based definitions and models of employability are difficult to measure reliably due to discrepancies in their operationalisation and because they are seen to reduce a complex idea to the development of basic skills (Knight and Yorke, 2002). In addition, a skills focus lends itself to a tick-box approach, checking off the skills acquired against a pre-populated list of those perceived to be important. This leads to overemphasising compliance rather than treating students as intellectual learners (Harvey, 2000; Harvey and Kamvounias, 2008; Tariq et al., 2004).

Lauder (2003) criticised the “plug and play” mentality of such frameworks, where graduates are unrealistically expected to enter the workforce prepared to practice skills they have acquired. In addition, despite the focus on bridging skills gaps between academia and industry, labour market inconsistencies still exist (Haasler, 2013; Lauder, 2003). The problem is that despite the criticisms that have been made of orthodox economists and policymaking rhetoric, the skills’ approach often provides a static snapshot of employers’ needs, as opposed to a holistic framework of a dynamic and constantly changing concept (Cox and King, 2006; Gilworth, 2013; OECD, 2015).

There is also debate over whether some skills deemed important by employers, such as creativity, can be taught out of context. Those such as critical thinking, require a certain degree of knowledge and practical understanding in order to be honed and applied, thus serving to strengthen themselves through practice. Other skills such as risk-taking, self-development, communication, and teamwork form essential parts of personality and character, raising the question of an alternate way of conceptualising graduate employability. Then there is the problem of measuring dispositions such as taking initiative, getting things done, and so on. These are more difficult to quantify than skills themselves (Knight and Yorke, 2002). Therefore, at best, skills can be broken down further into observable behaviours (Holmes, 2001; Jackson, 2012; Osmani, Weerakkody, and Hindi, 2017). Even then, who gets to decide which skills are important and should be taught in the curriculum (James et al., 2013; Tariq et al., 2004)? Furthermore, there is no guarantee that being employable will actually lead to employment, given the socio-political and economic realities of the workforce (Harvey, 2005; Osborne and Grant-Smith, 2017; Sin and Neave, 2016). Keeping these criticisms in mind, some researchers argue that the focus of graduate employability should be on developing a pre-professional, or graduate, identity (Dahlgren et al., 2008; Jackson, 2016b; Paterson, 2017; Tomlinson, 2012).

Hinchcliffe and Jolly (2011) proposed a four-stranded model of graduate identity, comprising the following: *values*, including organisational, contextual, and ethical values; *intellect*, including critical thinking, analysis, and communication abilities;

performance, such as the application of skills and knowledge in the workplace; and *engagement*, or a willingness to meet personal, employment-related, or social challenges. This model is useful for it does not require the translation of every employment requirement into an employability requirement. At the same time, skills such as communication or critical thinking are viewed as part of the *intellect* component, but with the ability to develop and adapt with fluidity. This model also allows moving away from a performance-based focus to a practice-based focus, where the choice and responsibility of shaping the identity lies with the graduate but ultimately moves to the employer to perceive and judge. Furthermore, it considers the fact that graduates themselves may behave in ways that may or may not make them more employable, aligning with Brown, Hesketh, and Williams' (2004) description of graduates as "purists" or "players". According to them, "purists" are graduates who seek to find the ideal graduate-job profile match, whereas "players" are those who view employability as a process of adjusting strategies best suited to making them more competitive.

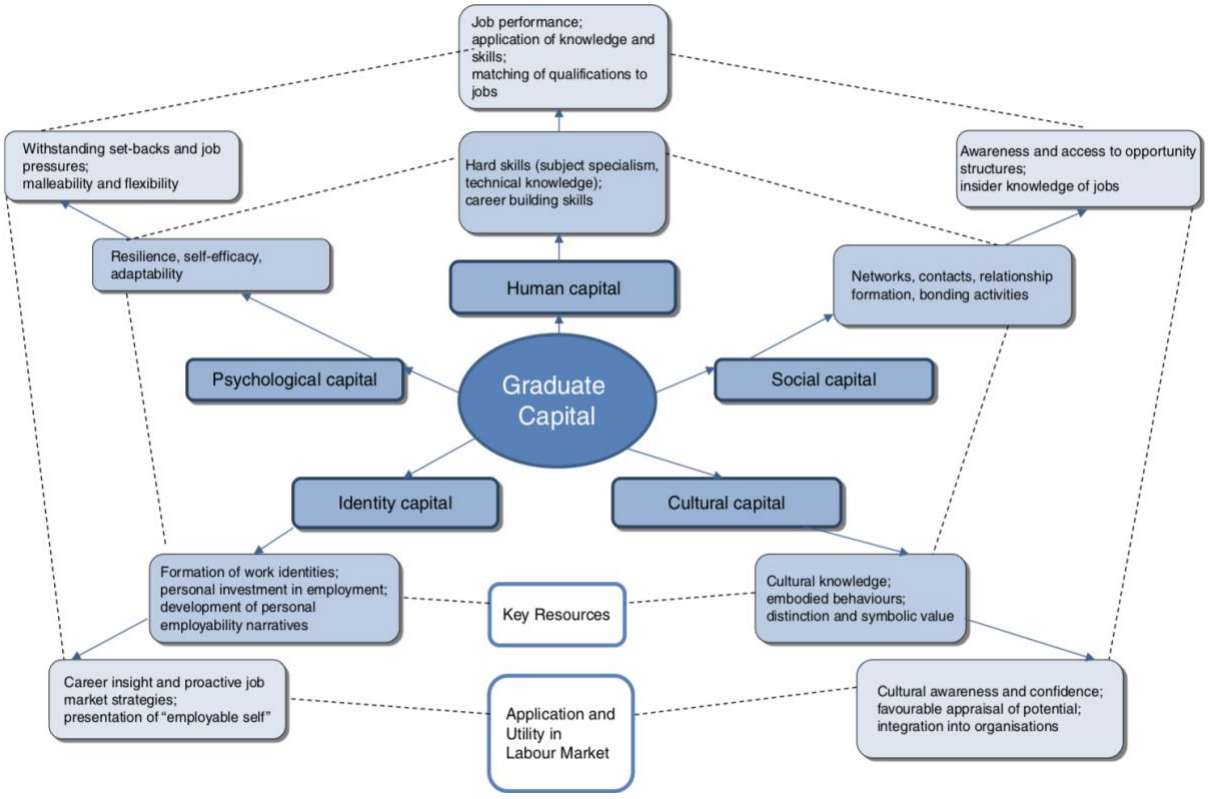

Figure 1. Model of graduate capital (Tomlinson, 2017, p.340)

Tomlinson (2017) proposed that graduate identity is a combination of all the effort graduates put into their employability and careers, terming it *graduate capital* (illustrated in *Figure 1. Model of graduate capital*). Tomlinson's (2017) five-stranded model of graduate capital places *human capital*, *social capital*, *cultural capital*, *identity capital*, and *psychological capital* as core tenets of developing graduates' pre-professional identities. In doing so, it considers subject-specific skills and job performance (*human capital*), networking with employers and understanding labour market structures (*social capital),* cultural awareness and application of norms (*cultural capital*), job search strategies and personal narratives (*identity capital)*, and resilience and adaptability (*psychological capital*). According to Peeters et al.'s (2017) research, social and cultural capital mediated professional identities and enhanced the development of overall "employability capital".

Tomlinson's (2017) model holistically accounts for contemporary issues brought about by globalisation, including adaptation to non-linear, generalist, or protean careers, layered onto conditions of the labour market (Bridgstock, 2011; Clarke, 2017; Francis, 2015; Humburg, van der Velden, and Verhagen, 2013; Maree, 2017; O'Leary, 2016). At the same time, it blends teachable skills and knowledge (such as technical and networking skills), with dispositions that can be honed (such as resilience and self-efficacy), opportunities in the environment (such as insider knowledge of jobs) and personal circumstances or advantages (including confidence brought about by cultural awareness and access to opportunities) in shaping employable identities.

Hinchcliffe and Jolly's (2011) and Tomlinson's (2017) models can be seen to overlap in some aspects: *values* with *psychological* and *cultural capital, intellect* and *performance* with *human capital*, and *engagement* with *psychological capital.* While Hinchcliffe and Jolly's (2011) model alludes to the fluidity of employability, it is Tomlinson's (2017) model that really brings out the duality of the concept, as proposed by Brown, Hesketh, and Williams (2003). In that, it considers the interplay between the five core tenets, that exist on a spectrum within individual graduates and job seekers. Of the various approaches to the question of graduate identity and employability that have been reviewed, it is Tomlinson's (2017) that is the most comprehensive.

Both these models allow for a distinction to be made between employment and employability. Together, these two models appear to be the most versatile ones described in employability literature. I will revisit them in *Chapter 6. Analysis and discussion of findings,* in order to provide an analytical lens to the data gathered in this study. These models will be used to ascertain the conceptions of employability held by *Homegrown* and *Glocal*. In particular, while Tomlinson's (2017) model is more comprehensive than the one proposed by Hinchcliffe and Jolly (2011), both models are needed to show the distinction between notions and philosophies towards employability held by the institutions in the current study. More precisely, Hinchcliffe and Jolly's (2011) model helps to show employability on a micro level, relating to specific individuals at a certain point in time. Tomlinson's (2017) model of graduate capital, on the other hand, helps to ascertain the volatile interaction between such micro forces and macro level factors in the broader environment.

This section highlighted different models in contemporary literature through which employability can be understood, namely skills- and identity-based ones. The next section will highlight how employability translates to pedagogy and the university experience in order to bridge gaps between academia and the labour market.

2.3. Pedagogy and employability

This section will review ways in which employability has commonly been embedded in the curriculum or higher education experience, in order to provide a lens through which the context of the current study can be understood better.

Generally, higher education institutions have responded to the increased employability emphasis by changing the curriculum, engaging more with industry, giving students more information on the job market, and trying to link employability with quality assurance (Cranmer, 2006; Harvey, 2005; Matherly and Tillman, 2015). Jackson (2012) argued that higher education institutions have responded "haphazardly" to the employability agenda, by adding initiatives to existing programmes, as opposed to

developing university-wide programmes tailored to specific contexts. Embedding or teaching employability as part of the formal or informal curriculum, or even bolting on employability modules to the curriculum, is seen as essential because it allows students to understand the skills and behaviour relevant to a situation, as well as to exhibit it in context (Cranmer, 2006; Fitzgerald, 2016; Harvey, 2000; Oria, 2012; Smith and Paton, 2014; Yorke and Knight, 2007). It is seen as the most common way across literature to reduce the skills gap between higher education and industry.

Essentially, embedding employability in pedagogy involves exposing learners to the world of work, be it through non-work-based or work-based learning. Beaty (2003) and Hills et al. (2003) provided a distinction between the two, whereby the former refers to experiential learning, or learning through academic and non-academic activities resembling those in a workplace, while the latter refers to learning on the job. Now, both these mechanisms will be reviewed briefly in order to later gauge the success of both *Homegrown* and *Glocal* in using such tools.

2.3.1. Non-work-based learning

Non-work-based learning takes the form of Extra Curricular Activities (ECAs), field trips, capstone or final year projects, entrepreneurial education, and so on. ECAs can take the form of simply encouraging students to take on co-curricular activities (Beaumont, Gedye, and Richardson, 2016). This includes volunteer work, sports, arts, creative, cultural, social, and political activities (Abdul Hamid, Islam, and Abd Manaf, 2014; Kinash et al., 2016). Pinto and Ramalheira (2017) showed the importance of ECAs in mitigating the effects of low academic achievement, or enhancing employability alongside high academic achievement. Their research found that substantial work experience, combined with high involvement in ECAs, significantly enhanced students' employability. Furthermore, students who had low academic achievement but high involvement in ECAs, were as likely to be called for a job interview as those with high academic achievement and no involvement in ECAs. Bourner and Millican (2011) believed that such community engagement builds social capital for graduates, while

Milner, Cousins, and McGowan (2016) added that students themselves perceive ECAs as beneficial for developing employability, particularly in terms of building their résumés.

Field trips, or site visits, and community service are particularly effective when they involve a place of relevance to students' learning programmes, align with the curriculum, and integrate the context into formal learning. These factors enable students to determine if the work environment of their chosen professions is in line with their interests and abilities (Creasey, 2013; Deeley, 2014; O'Connor, Lynch, and Owen, 2011; Ramachandiran and Dhanapal, 2015). Site visits are shown to develop personal outcomes, such as leadership skills and cultural appreciation, as well as social outcomes such as patience, teamwork, and social responsibility (Tee and Kalidas, 2015). Similarly, study abroad or student exchange opportunities are seen to develop international exposure and cultural awareness, but tend to be expensive for students, and therefore, usually accessible by privileged students (Eaton and Kleshinski, 2014; Jones, 2013; Watkins and Smith, 2018).

Final year projects are seen to synthesise prior learning, hone important academic and work-related skills, enable connections between departments within the university and with external agents, lean in to quality assurance frameworks and compliance, and serve as preparatory activities for the world of work (Kinash et al., 2016; Lee and Loton, 2017). Enterprise education, on the other hand, refers to applying innovative ideas creatively to practical situations, enabling the use of skills and mindsets that help students respond to new opportunities, adapt to change, solve problems, identify opportunities, and ensure personal effectiveness. An example of this would be the creation of a business plan or venture that enables learning through experience, thus ensuring the transfer of relevant skills and behaviours to work situations (Palmer-Brown and Patel, 2015; Rampersad and Patel, 2014; Smith and Paton, 2014). This is something that Beaty (2003) and Osmani, Weerakkody, and Hindi (2017) suggested can be learned in a work-like context, such as a science, engineering, or social science laboratory. Other researchers suggested that this can also be developed through simulations, client pitches, or general scenario-based experiential learning activities

(Avramenko, 2012; Higdon, 2018; Holmes and Miller, 2000; van Romburgh and van der Merwe, 2015; Wolf and Archer, 2013).

In general, Jackson and Tomlinson (2021) suggested that the more aligned non-work-based learning is with students' intended career outcomes, the more useful it is likely to be for their future careers, thereby necessitating the development of a diverse portfolio of employability offerings at higher education institutions.

This section reviewed ways in which students can gain skills, competencies and experiences transferrable to the workplace prior to graduation. The adoption and effectiveness of such practices at the institutions in the current study, and in light of a liberal arts education, will be reviewed in *Chapter 4. Findings: Homegrown* and *Chapter 5. Findings: Glocal*. The next section will review the types of work students can engage in with potential employers, prior to graduation, that are typically embedded in the curriculum or learning experience.

2.3.2. Work-based learning

WIL involves combining academic learning with on-the-job learning (Trede and McEwen, 2015). This can take the form of internships, sandwich or cooperative programmes, field work, job shadowing, graduate programmes, or even working at a university campus, and has been studied extensively as an employability enhancing mechanism (Abdul Hamid, Islam, and Abd Manaf, 2014; Clarke, 2017; Glendinning, Domanska, and Orim, 2011; Finch et al., 2013; Harvey, 2005; Jackson, 2015; Knight and Yorke, 2002; Leong, 2016).

Tomlinson and Jackson (2021) consider this to be one mechanism through which pre-professional identities can be developed. This, in turn, makes students more likely to reconcile different aspects of their identities. In other studies, employer involvement, engagement, and commitment to graduates' success was seen to be enhanced through such experiences, leading to better employment outcomes and job quality for graduates

(Ishengoma and Vaaland, 2016; Jones, 2014; OECD, 2015; Mason, Williams, and Cranmer, 2009; Merrill, 2015).

However, the success of WIL programmes depends on the logistical and social support students receive before, and after, the programme. It must be arranged as an intentional and meaningful activity (Billett, 2011; Bourner and Millican, 2011; Harvey, 2005; Hordern, 2017; Rowe and Zegwaard, 2017). This also shows the importance of students understanding the relevance of their work experience, blending theory with practice, and aligning skill development with skill implementation. It allows learners to understand professional ethics, role expectations, conflict management, technological skills, learning through observing mentors, and identifying areas for further development, all of which are vital in transitioning to the workplace.

There are drawbacks of WIL when implemented in isolation by higher education institutions. Research shows that WIL may not guarantee skills acquisition, and that sometimes students may not be given meaningful tasks on internships, while employers suggest this may be so because of the risk of students leaking confidential information. Employers are also not willing to invest in training students, since they may not be hired into full-time jobs in the same organisation. On the other hand, students may find it demotivating to engage in unpaid work (Jackson, 2014; Oria, 2012; Osborne and Grant-Smith, 2017; Tran, 2015; Wilton, 2008). Research has emphasised the importance of distinguishing the tasks of workplace and academic hosts in designing WIL as they are sometimes seen to have overlapping roles, causing confusion for learners (Bridges, 2000; Winchester-Seeto, Rowe, and Mackaway, 2016; Jackson, 2018).

Despite these criticisms, according to the literature reviewed, WIL is seen to be the most effective strategy for developing employability through the university experience (Pegg et al., 2012). Studies suggest that most stakeholders, including students, readily agree that WIL is crucial to the development of employability skills (Jackson, 2014; OECD, 2017; Senior and Cubbidge, 2010; Tran, 2015). In fact, Pitan (2016) found it to be the strongest predictor of employability. WIL seems to ensure the most transfer of

skills and knowledge to the workplace, provided that it is holistically immersed into a study programme or the university experience (Ehiyazaryan and Barraclough, 2009; Knight and Yorke, 2003; Panagiotakopoulos, 2012; Teare, 2011; Wickramasinghe and Perera, 2010). This is so because it adds a dimension of the real world to the curriculum, builds social capital, requires academia and industry to collaborate, links experiential learning with assessment, and allows students to reflect on the theory-practice link, generally benefitting all the stakeholders involved (Billett, 2011; Francis, 2015; Frison et al., 2016; Huq and Gilbert, 2009; Kettis et al., 2013; Ogilvie and Homan, 2012).

As with mechanisms for non-work-based learning, the adoption and effectiveness of WIL, as a means of enhancing employability through the liberal arts, will be reviewed in *Chapter 4. Findings: Homegrown* and *Chapter 5. Findings: Glocal,* in light of the participating institutions. The next section will review key stakeholders in employability research and programming, in order to critically assess the role of employability in the university experience and what that means for administering relevant strategies.

2.4. Whose line is it anyway?

The aim of this section is twofold. First, it will present an overview of the prominent stakeholders related to the development and implementation of the employability agenda in the higher education curriculum. Second, it will highlight avenues for cooperation and possible conflicts amongst them, in order to determine the weight and importance of each party within this community of practice. In doing so, this section is meant to set the stage for *Chapter 6. Analysis and discussion of findings*, so that readers can comprehend which stakeholders absorb responsibility for graduate employability in the current study.

Linked to the debate about the purpose of higher education is the clash in institutional interests or the determination of who should be responsible for graduate employability, as described by Cacciolatti, Lee, and Molinero (2017). They illustrated how firms

wanted to increase their own competitiveness, thereby demanding high technical skills in graduates through formal education. On the other hand, policy institutions were concerned about national competitiveness and socio-economic gains, thereby preferring workers with better soft skills, possibly developed through vocational education. In doing so, both of these stakeholders transferred influence onto universities, holding them responsible for finding the right skills-job match (Caballero, Vásquez, and Quintás, 2015).

Pedagogy and curricula for employability are developed by several stakeholders who share a complex relationship with each other, typically competing for their own interests, and with their own perceptions of what constitutes quality and employability (Ashwin, Abbas, and McLean, 2016; Bernstein and Osman, 2012; Clokie and Fourie, 2016; de Bruin and Dupuis, 2008; Francis, 2015; Kinash et al., 2016; MacAskill et al., 2008; Martin and Lee, 2018; McDonald and van der Horst, 2007; Paterson, 2017; Winstead, Adams, and Sillah, 2009). These include, but are not limited to, governments, private employers, higher education institutions, academics, administrative staff, and students (Armoogum, Ramasawmy, and Driver, 2016; Cox and King, 2006; Denoya, 2005; Harvey, 2005; Roberts, 2015). West (2000) described the interlinkages between stakeholder groups by saying that students enter universities in an attempt to improve their knowledge and skills for future professions and universities have the potential to develop and reshape industries and economies through research, while governments hope to invest in higher education as a form of economic development. Dicker et al. (2018) divided stakeholders in the following categories: the funding bodies as providers, the students as users of education, and the employers as users of outputs. Consequently, curriculum is designed based on the socio-political context, educational purposes, academic identity, institutional resources, teaching and learning philosophies, student demographics, parental influences, and specific disciplines related to each institution (Cheong et al., 2018; Jose and Chacko, 2017; Pham and Starkey, 2016; Roberts, 2014; Roberts, 2015).

Savga (2013) believed that educational institutions and governments, or relevant quality assurance bodies, should be assigned responsibility for employability, in line with their respective roles in developing quality assurance frameworks. Pham and Starkey (2016) found that the way fitness for purpose of higher education is defined on a national level, is not necessarily how it is construed by other stakeholders. For example, from the students' perspective, it is not necessary that their role is just that of a consumer during their higher education enrollment years. They could, in fact, be collaborators with academic staff and researchers, and producers or leaders in other contexts (Dickerson, 2016). When students can envision the path from higher education to the workplace, they tend to have smoother transitions (Busteed and Auter, 2018).

Lindsay and Pascual (2009) believed that policies use unemployment numbers to argue for the employability agenda, implicitly placing responsibility on graduates. Job seekers have the ability to actively shape their own careers, and when they are not successful in finding appropriate jobs, they may internalise this failure, reducing their confidence and ability to secure employment (Peters and Lam, 2015; Vanhercke et al., 2014). Sin and Neave (2016) added that when the responsibility for becoming more employable is transferred onto graduates, so is the cost of such development.

Reale and Primeri (2015) described educational organisations as having loose collections of preferences rather than shared goals as stakeholders. However, despite such reported gaps, Sin and Amaral (2017) found that academics and employers perceived similar roles for, and assigned similar weight to, stakeholders for improving employability. They divided responsibility equally between higher education institutions, employers, and graduates in finding and easing the transition into the labour market (de Oliviera and Guimarães, 2010; Finn, 2017; Glover, Law, and Youngman, 2002).

Caballero, Vásquez, and Quintás (2015) proposed that employability initiatives have not been optimally successful for two reasons.

First, there is room for academics and alumni to shape employability policies, as well as for employers to be present on curriculum communities. However, in Caballero, Vásquez, and Quintás' research, this aspect seems untapped. Holdsworth and Hegarty (2016) added that the focus of curriculum tends to be shaped by a select few academics and researchers, depending on their interests. There is little research on the changing roles of teaching staff who are responsible for implementing such initiatives. Students are typically excluded from such research because of increasing class sizes and logistical difficulties, and there are challenges in measuring perceived versus actual learning (Abdullah, Teo, and Tee, 2015; Clark, 2011; Fook et al., 2015; Frankham, 2017; Jackson, 2009; Jones, Torezani, and Luca, 2012; MacAskill et al., 2008; McKinnon and McCrae, 2012; Wagenaar, 2013; Whelan et al., 2010; Williams and Harvey, 2015).

The changing emphasis on models of higher education has meant that the role and involvement of faculty members has evolved as well. From faculty members being central to curriculum design, assessment development, grading, possessing social capital in the classroom and communities of practice, and being the gatekeeper between students and other stakeholders, higher education systems' focus has shifted to learners and social learning (Anderson and Lees, 2017). Communities of practice now determine assessment criteria and act as "implicit credentialing [authorities]" (Brown et al., 2009). This has made quality in higher education a pluralist concept, with power divided amongst several groups of influencers and decision-makers (Pham and Starkey, 2016).

Second, the relationship between universities and employers seems reactive, with a lack of staff dedicated to building university-employer relationships (Andrewartha and Harvey, 2017; Brockman, Clarke, and Winch, 2008; Chicago Metropolitan Agency for Planning, n.d.; Jackson and Chapman, 2012; Pegg et al., 2012). Several studies have highlighted the importance of employers and academics working together to develop curriculum design, delivery, and assessment, as the two groups are seen to have the most direct influence on students in developing their employability (Al-Mutairi, Naser,

and Saeid, 2014; Armoogum, Ramasawmy, and Driver, 2016; Barr and McNeilly, 2002; Cox and King, 2006; Jones, 2014; Matsouka and Mihail, 2016; Schnell and Rodriguez, 2017; Woodley and Brennan, 2000). In fact, Schnell and Rodriguez (2017) concluded that a “hand-in-glove” cooperation was necessary between these two types of stakeholders.

Employers’ influence on the curriculum serves to improve the theory-practice link necessary for enhancing students’ knowledge and aiding career development activities, especially since some skills may be better developed in the workplace (Bridges, 2000; Bridgstock, 2011; Hynie et al., 2011; Jameson et al., 2012; Litchfield, Crawley, and Nettleton, 2010; Martin, 2018; Mason, Williams, and Cranmer, 2009; O’Leary, 2016; Rosenberg, Heimler, and Morote, 2012; Smith, Ferns, and Russell, 2016). However, Adam, Atfield, and Green (2017) suggested that it is usually faster and easier to change curriculum delivery, than to have employers present on curriculum committees. Even then, the importance of having industry or professional bodies’ representatives on curriculum planning committees cannot be undermined because curriculum typically lags behind industry trends, necessitating this as an essential practice for both, curriculum enhancement and employability (Abdul Hamid, Islam, and Abd Manaf, 2014; Al Shayeb, 2013; Leoni, 2014; Roberts, 2014). Chetty (2012) recommended that perhaps academics should focus on the notion of graduateness, while employers should build employability. Here, graduateness was described as the development of skills and competencies and employability was perceived as the ability of the graduate to integrate into the workplace.

As universities continue to debate the purpose of their operations, employability initiatives go unassessed or unreported on official documentation, with a lack of communication between stakeholders resulting in inconsistency (Barr and McNeilly, 2002; Wolff and Booth, 2017). In providing a public and private good, it is necessary to ensure public and private communication, as advocated by the triple helix theory (Ishengoma and Vaaland, 2016; Watts et al., 2006). However, given economic and social constraints, that may not always be possible. Since policy and curricula tend to

be controlled by governments but implemented by higher education institutions and industry partners, it is imperative for these players to communicate effectively and establish collaborative governance mechanisms, while engaging in ongoing debate about the purpose, development, and dissemination of employability initiatives (ASET and contributors, 2013; Francis, 2015; Harvey, 2000; Harvey and Kamvounias, 2008; Henderson and Trede, 2017; Khalid, 2017).

Gore (2005) argued that employability is relational and complex, thereby making it difficult to assign individual responsibility. However, highlighting differences in stakeholder perceptions is critical because it shows a need and an opportunity for change in pedagogy, making it easier to implement policies once they are consistently agreed upon by all stakeholders (Mbabazi, 2013). Therefore, stakeholder analysis and employability audits prove to be necessary and crucial activities in devising pedagogy for employability, as each stakeholder exerts substantial influence on the implementation and effectiveness of such programmes, making it imperative to have a shared vision (Caballero, Vásquez, and Quintás, 2015; Jackson, 2016a; Lamagna, Villanueva, and Hassan, 2018; Osmani, Weerakkody, and Hindi, 2017; Roberts, 2015; Sin and Amaral, 2017). In conclusion, a key question in determining the stakeholders to include in employability research is to determine where employability gets operationalised in the university experience (Nilsson, 2017).

This section showed that there are various stakeholders whose interests are at play when employability offerings are being designed at higher education institutions. In gathering and reviewing this literature, I noticed the underrepresentation of university career services' offices. Hence, the next section will review literature on these entities and highlight the opportunities present in keeping their perceptions and experiences at the core of employability research.

2.4.1. University career centres: An emerging opportunity

After reviewing the diverse ways in which employability can be embedded in the

university experience and the roles of various stakeholders in doing so, I noticed that the role of university career centres was underrepresented in the literature.

Through a case study approach, Farenga and Quinlan (2016) illustrated three different roles career centres can play in enhancing graduate employability. They called the first a “hands off” approach, derived from a university that concentrated solely on teaching and learning. In this case, the students were left to make employment decisions for themselves. The second approach provided a “portfolio” of opportunities, where students could add employability initiatives to their curriculum as they deemed fit. Some of these modules were taught by academic staff and offered credits on completion. The third, “award” based model presented an accolade or certificate for enrolling in, and completing, the employability initiatives offered by the university, as a means of formally recognising students’ participation. Here, the programme ran parallel to the formal curriculum, and was taught and managed by academics and career staff.

Likewise, Barthorpe and Hall (2000) and Harvey (2005) suggested that contrary to the traditional role of career centres, where they would hold one-on-one sessions with students, their roles have now expanded to include a range of activities. These include gathering and presenting economic and labour market information, holding career fairs, organising workshops, drafting job search case studies, and liaising with employers in the region (Bridgstock, 2009; Fell and Kuit, 2003; Harvey, 2005; Martin and Lee, 2018; Punteney, 2012; Rae, 2007; Tyrer, Ives, and Corke, 2013). Likewise, Dey and Cruzvergara (2014) illustrated how the roles of career centres have evolved from being generalised and focusing on individual consultations, to becoming more holistic, customised, and engaged with employers. McKeown and Lindorff (2011) and Punteney (2012) posited that there is immense potential in the role of career centres, but further research is needed to understand how they can assist in bolt-on courses, core courses, on-demand requirements, and embedding techniques.

Gilworth (2013) suggested that career centres are the “gateways” for understanding the employability offering of an institution. Nevertheless, there is a dearth of literature on the

role of career centres, which were originally conceptualised to enhance employability. With the growing strategic emphasis on employability, the possibilities for improvement in the operations appear to be increasing simultaneously.

Based on this review, in the current study I will gather data from career centre staff, situating them as primary stakeholders in employability research.

2.5. Gaps in employability literature

To summarise, employability emerges as a complex, dynamic discipline of study. Research has defined and described it as education, training, and skills; to be embedded in course design, delivery, and assessment; to serve the needs of students, learners, graduates, employers, higher education institutions, educational administrators, policymakers, and governments. While there is considerable empirical research on the topic from across the world, there is no consistent definition of, and way of measuring, employability (Buntat et al., 2013; Cox and King, 2006; Frankham, 2017; Jackson, 2009; Khare, 2014; Knight and Yorke, 2003; Taylor, 2005). The current study will work with the notion of employability as a complex, fluid, and multi-layered dimension, comprising personal attributes, skills, dispositions, qualifications, and contextual conditions, that enable graduates to obtain work and navigate successfully through their early careers (Yorke, 2006).

This review of literature suggested that employability has been studied through wide-ranging topics, disciplines, and methodology, from various regions of the world. A few key themes emerged in the employability literature reviewed above. These include a widespread debate about the shift in the purpose of higher education from a knowledge-creation hub to one that prepares learners for the world of work; measures and models of employability; ways to embed it in the curriculum or university experience; and, the conflicting roles of various stakeholders in this employability agenda. Reviewing and understanding how each of these themes interact with each other was crucial in the

consequent development of methods and interview questions, in order to elicit participant views that would explicitly address the research questions.

This review also uncovered distinct gaps in the body of employability literature. First, there was a dearth of literature on employability as a strategic challenge for institutions and their leadership, specifically for liberal arts institutions. Second, existing studies limited themselves to one or a few stakeholders and predominantly used quantitative methods, such as questionnaires. Moreover, there was an untapped opportunity to research the perceptions, experiences, and effectiveness of university career centres. Finally, while the employability literature was geographically dispersed, researchers from the Anglosphere emerged as the most prominent ones in this field. However, there was a scarcity of employability research from the Middle East, and particularly from the UAE, even as the country strives to meet international standards for employability and higher education quality. Therefore, the current study aims to contribute to the body of employability literature and address some of these gaps. In doing so, this study will take a purely qualitative lens in order to understand stakeholder experiences in depth. The next chapter will discuss the context in which this study is set and provide an overview of the methodology.

Chapter 3. Methodology

As highlighted at the end of *Chapter 2. Review of the literature,* there are distinct gaps in the body of employability literature, specifically relating to the UAE and liberal arts institutions. In particular, there is a lack of research on whether and how employability is conceived as an institutional priority, how it relates to liberal arts curricula, whether vocational and non-vocational disciplines of study uniquely affect graduate employability, and how these factors collectively affect graduates' abilities to navigate forces in the labour market. Existing studies tend to limit themselves in scope with regards to the type and number of stakeholders represented in each study. Therefore, this small-scale, in-depth study aims to address these gaps in relation to the UAE's higher education sector.

This chapter will first explain my stance on data enquiry and consequently, move on to describing the selected research methods. Given the small-scale nature of the study, this chapter will then explain and discuss the rationale for selecting the cases, disciplines of study, participant groups, and individual participants for this study.

3.1. Positionality statement

This section will locate my decision as a researcher to select this topic of study and explain my relation to the specific cases in question. In selecting the topic, I reflected upon my own experience with employment and employability. I have both studied and worked at one of the institutions involved in this study, and am currently employed at the other (further details withheld for ethical reasons). As an undergraduate student, I did not perceive that I had adequate support from within or outside my department of study, in order to understand how to 'market' myself to employers or graduate schools, where to search for jobs or graduate programmes of interest, and how to secure such opportunities. I was primed by fellow students, colleagues and supervisors, to believe that 'marketing' oneself to potential employers was the most effective tool in finding a job that matched my interests and an employer's needs, especially given the intense

competition for jobs in the UAE, the shortage of meaningful ones for fresh graduates, and the lack of financial resources in the UAE's higher education sector.

As a university staff member, albeit more than a decade later, I have noticed just how much effort the academic and supporting departments put into making students employable, including setting up research collaborations, mentorship events with employers, local and international internships and study away experiences, to name a few. These observations, along with the fact that both these institutions pride themselves on offering an American-style liberal arts education, made it a compelling choice to select them as the cases for this study. This is because while the institutions themselves follow a liberal arts philosophy to higher education, other universities and employers in the region may not perceive the difference in graduates' knowledge, skills, and competencies. However, having studied business administration at a liberal arts institution myself, I think the liberal arts have immense potential to shape graduate identities in ways that are more sustainable for non-linear and leadership-oriented careers.

Personally, I am more interested in exploring rich, visual, and verbal accounts of lived experiences. I find such accounts more engaging to research and analyse, and believe that they allow greater access to understanding specific contexts, as experienced and perceived by participants themselves. Therefore, I chose qualitative research methods, including interviews and concept maps, to study the topic of graduate employability in a university context. I believe that my passion for the chosen topic and methods kept me invested in, and engaged with, this research study.

Undeniably, this raises concerns about having a vested interest in, and a priori knowledge of, the two institutions and their environments. In this context, I would classify myself as an insider, providing an emic account of employability at *Homegrown* and *Glocal* (Holmes, 2020). While I agree that I was familiar with the two institutions in question, I believe that I was not attached to the research environments or participants. For instance, I graduated from my alma mater over a decade ago and have not worked

there for over six years. I neither studied nor worked at the selected academic departments in question (for an explanation of the selection of disciplines and departments, see section *3.3.2. Sampling procedures: Selecting the disciplines of study*). At my current place of employment, I do not have any professional contact with faculty member, students, alumni, or other stakeholders of the selected academic departments. Therefore, I knew just enough about the inner workings of each institution, but was not particularly sympathetic or biased towards either of them.

In fact, I perceive this to be an advantage for my research. These experiences position me as a "detached insider" at both universities. I noticed that at my alma mater, participants were willing to help out an alumna, interested to learn about a career in academia, and how they could pursue a similar path. At my workplace, the low power-distance dynamic allowed me to easily contact participants in different departments, and for them to be willing to participate in the study. From the interviews, it seemed like participants were happy to help a colleague progress in their professional development, as documented in literature on positionality (Cousin, 2010).

Researching a topic that was not sensitive or private in nature helped to foster engagement and disclosure with participants (Holmes, 2020). My unique relationship with each institution allowed me to establish a personal connection with participants based on shared backgrounds, without having too much in common. I was able to ask questions more comfortably, and be perceived as trustworthy from the respondents' point of view. In addition, I was able to understand and engage in colloquial references at both institutions and redact them where necessary to preserve confidentiality (Holmes, 2020). In fact, in my view, one of the greatest advantages of being a "detached insider" at both institutions was this shared use of colloquial language at each institution, allowing participants to express views in an organic way, and enabling me to grasp them with authenticity. Knowing that I did not have direct contact with, or influence on, their roles within the institutions, ensured a further degree of participant-researcher trust. In fact, through the interviews, participants expressed interest in reading the findings of the study, so that they could better understand how various

departments and stakeholders are shaping the employability offerings at their institutions.

Therefore, while there were potential influences on the research process from shared backgrounds between myself and the participants, it can be argued that having too much of an outsider status would have come with its own set of drawbacks. These could potentially include a lack of authenticity in understanding participants' views and the influence of unique cultural and political factors on their experiences (Holmes, 2020). The "detached insider" role seemed to mitigate these and provided a balanced approach to conducting research in this particular instance.

3.2. Epistemological stance

In keeping with my research positionality described above, I designed this study from a constructivist perspective, whereby I assumed that participants construct their own meaning of phenomena. The proposition here is that multiple accounts can be construed from the same situation (Knight and Yorke, 2003). Research into employability, as described earlier, does not provide a consensus on what the term means and the precise experiences it encompasses. This implies that, employability incorporates several conceptions and practices unique to stakeholders. I strongly believe that every participant, within each research site, would have a unique way of viewing, interacting with, and understanding the same employability offering (Creswell, 2013; Gray, 2014).

Therefore, in the data analysis, I tried to ensure an accurate understanding of individual accounts before collectively analysing them as part of a group, with presumably shared beliefs, and later as part of an institution and its wider environment. In other words, I believe it is essential to understand how the individual construction of meaning relates to shared, institutional constructions. For example, Leong (2016) used constructivism in his research project by creating participant identities through career storytelling. Likewise, in the current study, perceptions of employability experiences were elicited

through a qualitative case study approach using semi-structured interviews, focus groups, and the illustration of concept maps (see section *3.4. Research methods* for a description of these techniques and an explanation of how they relate to the research questions). Each of these methods helped to elicit participants' unique constructions of their accounts of employability.

Complementary to the constructivist philosophy used in designing the study, the data analysis was conducted through a phenomenographic lens, whereby the emphasis was on studying how different groups within the same closed context understood the reality of their actions and reactions towards employability, while trying to highlight a variation in their responses, where applicable (Lees, Anderson, and Avery, 2015; Leong, 2016). Phenomenography has important insights to offer for employability research, as it delves into deep learning as well as learning experiences of the same environment through the eyes of different individuals and groups. This reveals possibilities for participant metacognition, eliciting richer views. In the current study, this was particularly important, in order to first draw comparisons between stakeholder groups within each institution and then collectively across the two institutions.

3.3. Designing the case study

According to Ashour and Fatima (2016), each university in the UAE is unique in its characteristics and circumstances, making the higher education sector an ideal environment for case study research. In that, this is a descriptive account of two specific, bounded cases that are comparable in nature, *Homegrown* and *Glocal*. Whereby, the experiences of participants and the variables being studied were impossible to separate from their contexts; as the researcher, I was solely responsible for data collection and analysis; and, the data was intended to generate qualitative, rich descriptions of participant accounts (Creswell, 2013; Merriam and Tisdell, 2015; Yin, 2014).

In addition, the case study approach was particularly suited to this context since the research questions aimed to describe or explain a phenomenon that exists in a closed environment, but one where several perceptions were to be explored (Creswell, 2013; Gilworth, 2013; Greenbank, 2012; Jones, 2014; Mwangi and Bettencourt, 2017; Oliver et al., 2011). That is, how the liberal arts university experience shaped graduate identities. Finally, given the micro-level study and analysis of employability in this study, this methodology was best suited to allow for a within and across institutional exploration of the university experience as it relates to graduate employability in the UAE (Holmes, 2017).

The next few sections will describe how the cases, disciplines, and participants for this study were selected before moving on to a description of the specific research methods used to address the research questions.

3.3.1. Sampling procedures: Selecting the two cases

This study followed a multi-layered sampling procedure. The two respective universities were purposefully selected given the similarities in their operations, reputation, and curricula. That is, to understand the importance of a university education with a liberal arts focus, in developing social capital for graduates in a knowledge economy. Both the sites were research-intensive, liberal arts universities, funded by federal governments within the UAE and registered as not-for-profit institutions. In the UAE, it is common for universities with full-fledged campuses and operations to receive seed grants or operational funding from governmental bodies, as a means of internationally elevating the perception of the higher education sector of a particular city or emirate. One of the universities was founded in the UAE and the other is an international branch campus. The small number of higher education institutions in the UAE makes them easily identifiable. Therefore, further details, including exact geographic locations of the institutions, have been omitted to protect the confidentiality of the research sites. As mentioned in section *1.2. Scope of this study*, the names of the universities have been changed to protect the privacy of the institutions and the respective participants.

Given the specific nature of this study, a non-probability, purposeful sampling strategy was used to select the cases. In that, two universities were selected in order to help understand, in depth, the context of embedding and disseminating employability initiatives at liberal arts institutions in the UAE (Henry, 2013). Creswell (2012) referred to this as theory or concept sampling. Here, the purposive sample is the population of the two universities in question and the theory, or concept, refers to employability as it is developed in each of these institutions and the various stakeholders that affect, or are affected by, it.

The name *Homegrown* was selected to reflect the first institution's status as a regional leader of teaching and research, while the name *Glocal* was selected to reflect the second institution's international branch campus status. *Homegrown* has a regional outlook on practices while aspiring to be internationally competitive and *Glocal* leverages their global brand name while tailoring educational content to regional needs. Both universities pride themselves as pioneers of research in this region, follow an American-style liberal arts education, and offer degrees across the arts, humanities, commerce, and engineering disciplines.

Homegrown boasts of almost 90 nationalities being represented in their current students and 115 in their alumni. *Emiratis* make up the largest percentage of all their alumni to date. Their employability ranking was over 85 per cent in 2019, although this percentage was calculated based on the number of students in full-time work or study post-graduation. That is, their employment rate rather than an employability score (Institutional data, source withheld for ethical reasons). Their career services' office webpage does not provide any specific details of employment statistics or employability initiatives.

At *Glocal,* the placement rate for the 2019 student cohort was over 90 per cent, with more than 60 per cent of students employed in full-time positions, almost 25 per cent pursuing graduate studies, seven per cent taking a gap or volunteer year, and six per cent seeking jobs. More than 90 per cent of these students had completed at least one

form of work experience, and almost 70 per cent had completed at least one internship at the time of graduation (Institutional data, source withheld for ethical reasons). The UAE emerged as the top country for *Glocal*'s Class of 2019 job placements, with over 50 per cent of the employed students staying on after graduation. According to data on their website, the top industries employing *Glocal's* graduates internationally were (in order of prevalence): consulting, education, technology, banking and finance, arts and media, construction and manufacturing, law and government, social impact, and healthcare. According to the same source, within the UAE, the top industries that hired *Glocal*'s graduates in 2019 were (in order of prevalence): consulting, education, technology, real estate and hospitality, banking and finance, government and social research, arts, and media.

3.3.2. Sampling procedures: Selecting the disciplines of study

Given the limited scope of this study, it was not possible to conduct in-depth research by selecting participants across all disciplines of study at each institution. Therefore, I attempted to select two programmes that were comparable between the institutions: one that was highly employable and another that was on the lower end of the employability spectrum. In order to elicit this information, I started the data collection process with the career services' staff as the first participants, so that I could ascertain which disciplines would fit these parameters. I chose to get this information from the career services' staff at each institution because institutional data on employment and employability resided with them, and was not publicly available, beyond what was reported above in section *3.3.1. Sampling procedures: Selecting the two cases.*

While career services' staff at both universities first cited economics as their most, and arts as their least, employable disciplines, the two institutions did not offer comparable programmes within the arts. Therefore, I decided to probe further to elicit comparable disciplines, keeping their employability trends and projections central to the decision. Two programmes emerged as ideal sub-cases for this study: computer engineering and civil engineering. Housed within the same department at each institution, with common

foundational course requirements, they would make for an interesting, bounded case study and ensure homogeneity of students and graduates, while possibly eliciting key differences in stakeholder experiences (Nilsson, 2017). At the same time, these were technical disciplines, typically associated with being organically vocational, housed within an overarching liberal arts curricular structure. I believe these factors added an additional, interesting layer of analysis to participant experiences.

The career services' staff at both institutions confirmed that computer engineering was one of the most employable degrees, whereas civil engineering graduates faced challenges in finding suitable jobs, given specific regional constraints in the labour market (see *Chapter 6. Analysis and discussion of findings* for a detailed discussion of labour market constraints on graduate employability). Selecting these disciplines also allowed me to take a step back from popular, contemporary careers that students may be attracted to, such as those in the financial and creative industries, that offer significant rewards to those at the top of their fields. It allowed for a discussion on traditional subjects being scaffolded into a liberal arts philosophy. Consequently, this allowed me to uncover perceptions of employability related to STEM-based disciplines housed in liberal arts institutions, adding depth and character to the data analysis (Fallows and Steven, 2000; Jones, 2001; Jones, 2013; Martin and Lee, 2018; Mason, Williams, and Cranmer, 2009; Minocha, Hristov, and Reynolds, 2017; Speight, Lackovic, and Cooker, 2013; West, 2000).

Therefore, the research questions outlined in section *1.2. Scope of this study* will be answered specifically in relation to civil and computer engineering at *Homegrown* and *Glocal*.

The employability outlook of the selected disciplines was measured through employment numbers by the respective career services' offices at *Homegrown* and *Glocal*. This was unavoidable due to the challenges present in measuring employability as a standalone concept, especially given the criteria used at the institutions themselves (see section *2.2.1. Employment versus employability*).

3.3.3. Sampling procedures: Selecting participant groups and individual participants

According to Tomlinson (2017), studying employability at the micro level can provide the strongest sense of what it means to individuals and how it shapes their experiences. Therefore, in order to construct a holistic view of employability as it is embedded across the university experience, I tried to include all the departments and offices that would be involved in programming for employability, directly or indirectly. In deciding participant groups, I deliberately decided to study employability from the standpoint of internal university stakeholders, in order to preserve the essence of employability offerings being developed and transmitted to students and graduates, rather than add a comparative element from employers' perspectives.

Once the research sites and programmes of study were selected, snowball sampling was employed in order to find participants within each stakeholder group. Based on my experience, the UAE does not have a cohesive culture of academic research. Therefore, snowball sampling helped to establish trust with participants beforehand (Clark, 2006). I contacted a total of 44 potential participants. Of these, 41 agreed to participate in the study, including two whose responses were omitted from analysis (see *Table 3.3.3. Description of Individual participants* for details on these participants and section *7.5. Future directions for employability research and concluding thoughts* for an explanation of why I omitted their responses from the data analysis). In addition, two potential participants did not respond to my request while one dropped out before the start of the interview.

I first scanned the web profiles of relevant faculty members, programme leaders, and staff members from the career services', institutional research, and international education offices. Then, I contacted them via email, asking if they would like to participate in the study (see *Appendix A: Sample emails to participants*). Through the deans and associate deans, I got a sense of which faculty members would have valuable input to the study, based on their service to the university or experience with

employability offerings therein. From the faculty and staff members who had worked closely with students, I obtained contact details of graduating students and alumni and sent them individual e-mails, asking if they would like to participate in the study. Finally, through the graduating students and alumni, I was able to get details of additional participants for these two groups. The benefit of using this approach was that I obtained contact information of those who had relevant experiences to share. There was a possibility of bias through members of programme leadership suggesting staff members, and staff members suggesting students or alumni, who spoke well of their institution. However, with the small-scale nature of the study, I did not think this risk was any higher than that of sending unsolicited emails and having loyalists of either institution respond favourably to them.

I avoided acquiring generic lists of students and alumni from faculty and staff members at each institution in order to ensure that participants did not treat my communication as spam. As a researcher, it is likely that I would have to obtain such lists from professors or staff members, if needed. The registrar's offices would not be in a position to give these out for research purposes, due to laws around the confidentiality of student records. In addition, I contacted potential participants myself, rather than having the referring participant connect us, so that potential participants did not feel compelled to take part in this study because of a suggestion from their professor. This could introduce bias in their responses based on dynamics introduced by high power distance between these groups of respondents (Hofstede, 2001). This strategy also ensured that students and alumni suggested fellow participants whose views would allow me to discover consistencies and inconsistencies across programmes, institutions, and time frames. I contacted students in their third or fourth year of study, as opposed to those from earlier years. This was so that I could understand their entire academic journey and university experience as opposed to scattered snapshots of their academic lives (Cavanagh et al., 2015).

The rationale for including alumni in the sample was threefold. First, their views would help to validate students' views, and vice versa. Second, this would allow me to

understand the long-term implications of institutional offerings tailored towards employability. Third and most importantly, they would help me understand labour force and workplace dynamics more authentically, when compared to other stakeholder groups who expressed their anticipated or expected experiences with forces in the labour markets. I recruited only alumni who had graduated within four years of the data collection period, in order to ensure validity and generalisability across the same student cohorts. Both universities in the study are fairly young (between ten and 20 years of formation in the UAE). This posed the possibility of both institutions undergoing rapid structural, operational, and regulatory changes, in short periods of time. Therefore, I selected this timeframe in order to ensure that the environment experienced by alumni had a high degree of similarity to the one that current students were experiencing.

While there is plenty of literature on employers' views on graduate employability, alumni's views tend to be underrepresented, despite them being the key consumers of employability efforts (Tomlinson, 2017; Tymon, 2013). Therefore, their views also helped to provide a snapshot of what each institution's employability offering was like over the course of entire degrees.

Furthermore, I selected participants from undergraduate programmes only. This is because undergraduate and graduate students, pedagogy, and programmes are fundamentally different. Using them in the same study would affect the validity of research (Chhinzer and Russo, 2018). In that, the experiences of undergraduate and postgraduate students, their degree and course requirements, access to voluntary initiatives, and types of job search options and strategies may not have been comparable.

Recruiting participants from several stakeholder groups provided valuable insights into each research question: reflecting on the perceptions of various higher education stakeholders as they related to employability, gauging the challenges and opportunities for higher education institutions in embedding and disseminating employability, and understanding the liberal arts experience for engineering undergraduates. While

programme heads, curriculum committee members and faculty members helped to understand the academic or curricular side of employability, the career services', institutional research, and international education offices provided input from a strategic perspective (Whelan et al., 2010).

Students and alumni were the prime recipients of these initiatives and as Dickerson, Jarvis, and Stockwell (2016) suggested, can act like "teaching and learning consultants" in pedagogical projects centered around employability, enabling them to adopt a critical view of the initiatives offered at their universities.

I did not include employers as part of the sample for the following reasons. Including employers in the study would ideally require finding those who had specifically recruited graduates from these two universities. Having any other employers participate in the study would mean that they would reflect more generally on graduates in the region, constructing their perceptions from different, perhaps incomparable university contexts. Even then, given that there is a dearth of employability literature from the region, it would be useful to understand employers' perspectives. For this, I conducted one interview with a talent acquisition specialist who had experience working in both, academic institutions and engineering consultancies, within the UAE. The analysis of this interview (see *Chapter 6. Analysis and discussion of findings)* was used to complement the findings of the study as well as regional and international literature, rather than provide a standalone account of employers' views. This helped me to assess the degree to which the selected institutions' approach towards employability reflected the wider context of workplaces in the UAE, although not definitively.

In conclusion, each stakeholder or participant type brought their own value to the data generation process. *Table 3.3.3. Description of individual participants* lists details of the number of participants within, and across, stakeholder groups and institutions. As shown in the table, the number of participants varied across the groups. This was for two reasons. First, the relative size of the institutions was different: the class sizes at *Homegrown* were far larger than those at *Glocal.* Second, given the limited scope of this

study, the data collection window could not be left open indefinitely and was conducted over five months (between March and July 2020). After this, I decided to work with the data that was generated in order to stay within the scope of the study. Even though each group had a small number of participants within it, data generated across all participants groups allowed me to observe systemic differences in each institution from a multifaceted perspective. Additional information on pseudonyms used for participants' names and their affiliations, indicating their relative power at each institution can be found in *Chapter 4. Findings: Homegrown* and *Chapter 5. Findings: Glocal*.

Participant/stakeholder group type	**Description of participant group type**	**Number of participants from each institution**
Career services' staff	Staff members working in the career services' office with a primary responsibility of ensuring graduate employment and employability	• One staff member from *Homegrown* • Two staff members from *Glocal*
International education staff	Staff members working towards international education programming including overseas study and internship opportunities	• One staff member from each institution
Institutional research staff[1]	Staff members working in institutional effectiveness departments with the goal of collecting data to ensure institutional strategies were being met	• One staff member from each institution
Programme leadership, faculty members, and curriculum committee members	Program heads and faculty members from each programme including those who served on curriculum committees	• The programme head of computer engineering at *Homegrown*

[1] The views of these participants were omitted from the data analysis as they did not relate in any way to the employability offerings, data, or experiences at each institution. A reflection on excluding them from the study can be found in section *7.5. Future directions for employability research and concluding thoughts.*

		• The programme head of civil engineering at *Homegrown* • One faculty member of computer engineering (also on the curriculum committee for computer engineering and civil engineering) from *Homegrown* • One faculty member (also the internship coordinator) for civil engineering at *Homegrown* • The programme head of computer engineering at *Glocal* • The programme head of civil engineering at *Glocal* • The associate dean of computer engineering at *Glocal* (also involved in curriculum development) • Two faculty members of civil engineering at *Glocal*
Graduating students	Students who were within one year of their tentative graduation date	• Five civil engineering graduating students from *Homegrown* • Four computer engineering graduating students from *Homegrown* • Two civil engineering graduating students from *Glocal* • Two computer engineering graduating students from *Glocal*
Alumni	Alumni who had graduated from the respective programmes after 2016	• Two civil engineering alumni from *Homegrown* • Three computer engineering alumni from *Homegrown*

		• Three civil engineering alumni from *Glocal* • Three computer engineering alumni from *Glocal*
Employer	Human resource specialist	• One talent acquisition specialist with extensive experience in recruiting for academic institutions and engineering consultancies in the UAE

Table 3.3.3. Description of Individual participants

So far, this chapter has explained my choice of cases and participants. Now, it will describe my stance on the data generation process, including the specific methods that I used, their relation to the research questions, the initial conception of the research design and how the COVID-19 pandemic altered the course of the study. Then, it will discuss how the data was analysed, before moving on to data measurement and ethical considerations.

3.4. Research methods

Unlike macro- and meso-level studies that typically employ quantitative data collection techniques to study the demographic and economic markers of students graduating at a particular point in time, micro-level studies tend to use qualitative techniques to generate a rich picture of a smaller sample (Holmes, 2017). Keeping this, as well as my epistemological stance as a researcher in mind, I designed a qualitative case study using online semi-structured interviews and focus groups.

3.4.1. COVID-19 pandemic: Alterations to the study design

Initially, I planned to conduct all the data collection in person. However, due to the onset of the COVID-19 pandemic, I had to suspend in-person data collection soon after I started it in March 2020. After five interviews had been completed, namely those with

both institutional research staff members, two career services' staff members, and one international education staff member, restrictions were placed on in-person interactions due to the COVID-19 pandemic. I waited a few weeks to see if the restrictions would be eased. However, I then decided to alter the data collection strategy due to the uncertainty of circumstances surrounding in-person research. Described below is the data collection protocol that was followed after revising it in line with restrictions imposed due to the pandemic. Where appropriate, changes to the research methods, data analysis, and ethical considerations are also described in their respective sections.

3.4.2. From in-person to online research

Except for the five interviews mentioned above which took place in participants' offices, all other interviews and focus groups were conducted online using Zoom. The sensitivity of the online context was kept in mind to ensure participant comfort and privacy, although ethics for online interview settings generally follow those for in-person ones (Eynon, Fry and Schroeder, 2017). While Skype is more commonly used across the world, there is an official ban on Voice over Internet Protocol (VoIP) platforms in the UAE, making it difficult to use Skype. Given the pandemic, Zoom was a popular choice with organisations and universities in the region, and did not require prior installation or training. Using Zoom ensured that all participants had access to the service without any inconvenience or disruption. As advocated by O'Connor and Madge (2017), using a relevant software was important in order to facilitate participation.

Consent forms were emailed to participants before the interviews took place. This ensured that they had a chance to read and understand the study, and saved time during the virtual meetings (Ashwin, Abbas, and McLean, 2016). It also allowed the participants to ask any clarifying questions prior to deciding if they wanted to participate in the study. In addition, using Zoom's inbuilt recording capabilities meant that participants got a notification on their screen indicating that the meeting would be recorded and had to consent to this before the recording began.

During the interviews and focus groups, in order to respect participants' individual preferences and privacy, I first asked the respondents if they would like to switch on their camera, and then switched on my own camera. In some cases, participants chose not to switch on their cameras due to unstable internet connections. In fact, the flexibility of online interviewing positively impacted participants' willingness to engage in the study, as they could select a time at their convenience (O'Connor and Madge, 2017).

Remote interviews are seen to come with costs such as a lack of richness of data, compromising trust with interviewees, lack of visual and emotional cues to direct conversation, and so on. However, in Johnson, Scheitle, and Ecklund's (2019) review of over 300 cross modal interviews, they found that virtual interviews did not differ significantly from in-person ones in terms of interview length, interviewer perception, and coding strategies. In the case of the current study, moving data collection to a virtual platform was unavoidable, in which case they suggested that the benefits outweigh the costs of doing so. Based on my prior experience with in-person interviewing, I did not notice significant differences in voice and emotional cues when cameras were switched off (Batra, 2018). Given that academic and workplace communication was moving online for everyone simultaneously, an implicit trust seemed to form between myself and the participants since the communication platform was not perceived to be out of the ordinary.

All individual and group interviews lasted between 30 and 60 minutes, with two larger focus groups taking approximately 90 minutes. I maintained a record of notes for each interview, in order to keep track of the duration, special circumstances, personal reflection, or comments made during the interaction that were relevant to the study (Creswell, 2012).

Zoom has in-built technology to record and transcribe the interviews efficiently and seamlessly. I verified the transcripts against the audio recordings to ensure accuracy and correct any errors due to participants' accents, background noise, and similar factors. I sent the verified transcript to each participant so that they had a chance to decide if they wanted to add or delete something. In two instances, participants noted

that the names of the scholarships they held could identify them. I consequently deleted this information from the respective transcripts. For the in-person interviews, I used a digital audio recorder and then transcribed the interviews through Otter.ai. This is the same software that is built into Zoom for automatic transcription of recorded meetings. A sample transcript has not been included in the appendices due to the risk of revealing identifiable information.

The next few sections will describe the research methods in detail, with particular regard to their theoretical and analytical value to this study.

3.4.3. Online semi-structured interviews

I selected interviews as the primary data collection method in order to allow an in-depth understanding of participants' views, choices, and reasons of reflecting upon experiences that they thought were useful to the development of their employable identities (Humburg, van der Velden and Verhagen, 2013). Interviews also served as an effective means for establishing a relationship with each participant, owing to the lengthy discussions that took place (Seidman, 2006).

One-on-one interviews are generally time-consuming. However, I decided to conduct individual interviews with most participant groups in order to ensure their privacy and comfort, allowing them to confidently express their views, especially considering that each of them had a unique role to play in the employability experiences at *Homegrown* and *Glocal*. This was important because there were very few members from each subsample, who may or may not have known each other or shared experiences, making it difficult for me to understand their views, in depth, in a group setting (Creswell, 2012). Furthermore, scheduling group interviews would be difficult given that participants were in different time zones, with different work schedules, particularly due to pandemic-related circumstances. As a "detached insider", I perceived that having more than one participant from a specific department or from multiple stakeholder groups could introduce elements of discomfort, bias, and power distance for some participants.

The questions in *Appendix B: Interview questions* served as guidelines for the broader topics that I hoped to discuss (Cavanagh et al., 2015; Merriam and Tisdell, 2016). I combined some questions where it seemed appropriate to do so. In designing the questions and selecting their order, my aim was to elicit an understanding of what employability meant at each institution and how it was sewn into the curricular principles and university experience (Frison et al., 2016; Gilworth, 2012; Jackson, 2012; Roberts, 2015; Speight, Lackovic, and Cooker, 2013). In line with Creswell's (2012) suggestion, I focused on asking some background questions about the topic, followed by approximately five to seven broad questions that would specifically address the research questions in section *1.2. Scope of this study*. In doing so, these questions helped to elicit the embedding and enactment of employability through various actors in the university policy chain, as well as through various facets of intentional and coincidental practices that foster or hinder graduate employability. For example, I specifically asked all stakeholder groups which employability initiatives at their respective institution they were explicitly involved in (be it from a planning or participating point of view), whether employability was a strategic priority at their institution, the relative importance of employability compared to teaching and research activities, the extent of employer involvement in curriculum development, and the impact of a liberal arts structure on employability.

Such questions highlighted the ways in which employability was embedded into the curricular philosophy and university experience. Other questions, such as those that related to participants' internship and job search experiences, involvement in employability related projects and courses (voluntary and mandatory), and cultural norms in hiring practices helped to ascertain the various forms of enactment. It is interesting to note the complementarity of these two concepts as they relate to specific interview questions. A guest lecture by a prominent employer would serve as an embedded form of employability from the career centre or programme leaders' standpoint. However, attending such a session would constitute the enactment of enhancing employability on a student's part.

Asking several specific questions sometimes aids in confirming the interviewer's preconceived notions. My aim was to understand employability holistically, so I avoided asking questions primarily about employability skills, as it provides a static snapshot rather than a holistic framework of a dynamic and constantly changing concept (Cox and King, 2006; OECD, 2015). Bernstein and Osman (2012) believed that the concepts of graduateness and employability may be largely incommensurable. Holmes (2017), on the other hand, suggested an interesting approach to studying employability: defining what kind of a *concept* employability is, before trying to define the *term* itself. We seem to confuse when employability is discussed as a technical versus an untechnical concept, and assume that all stakeholders have a shared meaning of it. In reality, the meaning may differ depending on the discourse. Instead, Holmes suggested that employability conversations should centre around the factors that make employment easily accessible for graduates, those that reduce their chances of success in the job market, and how these factors vary between contexts. Therefore, each interview started by establishing what the participant meant by graduate employability, in order to ensure that they were not just talking about employment numbers and that they understood the fluidity of the concept.

Then, the scope of the study was clarified to participants before moving on to further questions. The questions related to the following categories in all cases, but were modified depending on the stakeholder group and participants' responses: participants' roles in relation to graduate employability; challenges, opportunities and norms in the local labour market; specific initiatives that participants were personally involved in and how these impacted employability; the role of employability in institutional strategy and policy; the relative weight of employability in the curricula, compared to that of teaching and research; and, internship and job search experiences.

Upon completion of each interview, I gave participants a chance to ask any questions they had or add any comments they wished to. I then thanked them for their time and participation and asked if they had any other suitable participants in mind that I could contact.

3.4.4. Online focus groups

While I thought there was value in conducting one-on-one interviews for most participant groups, graduating students were likely to share some classes with each other, and also be able to reflect on their degrees and ECAs in a collective manner. They could potentially build on each other's views, and collectively reflect on their fellow students' experiences. This would add an element of group perception to the study and uncover the experiences of the entire cohort, helping to reveal wider trends in the respective employability offerings of each institution. Therefore, I decided to conduct group interviews or focus groups with graduating students at each institution, keeping the interview questions and categories consistent with the ones used in individual interviews. Creswell (2012) suggested that focus groups can uncover group perceptions while also allowing individuals to express their views. Sometimes, this allows the shy and hesitant participants to feel comfortable when they witness others express their views.

A salient example of this point can be found in *Chapter 4. Findings: Homegrown.* The focus groups with graduating computer and civil engineering students at *Homegrown* saw lengthy conversations about the "DA's list". They were referring to a contact list of employers in the UAE, provided by the Departmental Assistant (DA), which could be used for internship and job applications. Some students found this mechanism inefficient and unprofessional. However, through this group discussion, one participant clarified that the DA compiled this list primarily out of her own goodwill rather than a departmental effort towards graduate employability. This dialogue helped students negotiate the meaning of similar experiences at different points in time. Therefore, given that students were at the same level of hierarchy in the university policy chain, using focus groups for the graduating students proved invaluable in the construction of collective meaning.

Creswell (2012) suggested limiting the number of participants between four to six in each group, in order to give every participant a fair chance to speak. However, due to

the different class sizes at *Homegrown* and *Glocal*, I was not able to recruit the same number of participants per group at *Glocal* (see *Table 3.3.3. Description of Individual participants* for details).

Since the interviews were online and being recorded, it was easier for me, as a researcher, to focus on the guiding questions rather than take notes during the interview. Using Zoom to conduct online interviews enabled participants to click on the 'raised hand' emoji when they wanted to speak. The transcription software labelled the interview transcript with participant names automatically.

3.5. Ethical considerations

The welfare of participants and participating organisations must be of utmost importance in any research. This includes respecting them before, during, and after data collection, including in the data reporting stages (Creswell, 2012). The measures adopted in the current study adhere to collecting and analysing data in an ethical manner, as prescribed by the British Educational Research Association (2011), the Ethical Implications of Research Activity form at the University of Bath, and researchers such as Creswell (2012; 2013) and Gray (2014). Keeping the above-mentioned guidelines in mind, I adopted the following measures for participant welfare.

3.5.1. Approval from participating organisations' Institutional Review Boards

Prior to conducting any research, I obtained ethical approval from the University of Bath. I then contacted the Institutional Review Board (IRB) offices of both participating universities, in order to understand the procedures for conducting research therein. The IRB is an independent board for reviewing ethical considerations in human participant research. I submitted proposals for my study to the IRB committees at each institution, detailing the research procedures, types of participants required, the time involvement, data collection period, and expected outcomes of the project. I started contacting potential participants after both applications were approved. Therefore, this study

adheres to the policies for conducting research with human participants at both research sites. When pandemic-related restrictions were enforced, I approached both offices for re-approval, given the slightly altered nature of data collection from in-person to online interviews. These documents have not been appended in order to maintain the confidentiality of both institutions.

3.5.2. Informed consent, voluntary withdrawal, and incentives

The consent form described the purpose of this research project, participants' rights to privacy and confidentiality, data recording techniques, storage methods, reporting procedures, risks involved, the time required for participation and their right to withdraw if participants felt uncomfortable at any stage and for any reason. For the in-person interviews, printed consent forms were signed prior to the start of the interview and participants were given a small box of dates as a token of appreciation. No monetary or non-monetary incentives were offered for participating in the study. For the online interviews, consent forms were emailed to participants beforehand, and they sent a signed copy back before the start of the interview. It was not possible for me to offer any tokens of appreciation for online interviews. A sample can be found in *Appendix C: Sample consent form*.

3.5.3. Voluntary participation and recording of interviews

Participation in the study was completely voluntary, as stated in the consent form, and participants were free to withdraw at any stage without having to provide a reason for doing so. None of the participants withdrew from the study once it had begun.

The focus groups and interviews were audio recorded with the consent of participants. While some participants could find this uncomfortable as it makes the setting appear formal, it also helps to improve trust as it reduces the chance of misquoting or misrepresenting their views (Clark, 2006; Gray, 2014). I was prepared to take notes in case a participant was not comfortable being recorded. All except one participant

consented to being recorded. As described in section *3.4.2. From in-person to online research*, I used a digital audio recorder for the in-person interviews and manually transcribed them. The online interviews were recorded and transcribed using Zoom's inbuilt capabilities.

3.5.4. Openness and disclosure

Participants were given complete and accurate information at the beginning of the study. The purpose of research, procedures involved, and recording and reporting mechanisms were clearly stated in the consent form. Ashwin, Abbas, and McLean (2016) suggested that verifying answers with participants gives them control over the research process, allowing them to reflect on their responses. In keeping with this suggestion and in an attempt to fairly represent participants' views, I committed to sending participants their interview transcripts for verification before writing up the findings of the study. Additionally, I wrote a short, generic, report on the findings of this study, and shared it with participants for their reference, as a way for them to better understand the institutions they worked or studied at, and to validate their trust in the research process. A copy of this report can be found in *Appendix D: Preliminary findings*.

3.5.5. Privacy and confidentiality

In order to ensure the privacy of participants and the respective institutions, the names of both universities, their offices, departments, and all participants have been changed in text. I selected pseudonyms to represent participants in line with their respective ethnicities (see *Table 4. Homegrown: Participants' designations and names and Table 5. Glocal: Participants' designations and names*). This was done to engage readers with the text and to give them a sense of the diversity represented in the findings. Any mention of institutional data from the public websites of both institutions was approximated in text, with references withheld. Any information perceived as identifiable was removed from the interview transcripts.

So far, this chapter has explained the research methods, alterations necessitated by the COVID-19 pandemic, and ethical considerations in conducting this research. The next section will discuss how the data was analysed before moving on to an overview of influences on data measurement factors.

3.6. Data analysis

I began analysing the data after all the participants had verified their respective transcripts. I followed a three-step process for analysing the data thematically. In that, the first step was to analyse publicly available information on each institution's website for references to employability and graduate identity development as a strategic priority. The second step was to construct concept maps with overarching codes or categories from group perceptions. The final step was to refine them into broader themes relating to specific research questions. These processes are described in turn below.

3.6.1. Web data analysis

In order to understand whether employability played a role in each institution's mission, vision, and operating strategies, I analysed publicly available information on their websites, including their course catalogues. In particular, I looked at three aspects of publicly available information: the introductory text describing each institution, the institution's mission and vision, and the departmental webpages for computer and civil engineering stating their intended learning outcomes. In doing so, I paid attention to words, phrases, and mentions of employment, employability, skills, and competency development, knowledge creation, research expertise, and the mention of specific opportunities that, according to the literature, play a role in defining and refining graduate identities. This process not only helped me understand whether and how employability played a role in the universities' missions, but also guided the data analysis. In that, it provided a background for the interview and focus group data, shaping how employability trickled down the policy chain at each university. The analysis for web data at *Homegrown* and *Glocal* can be found in their respective

findings' chapters, in sections *4.1. Employability at Homegrown: Publicly available information* and *5.1. Employability at Glocal: Publicly available information*.

3.6.2. Concept maps as a tool for thematic analysis

In the original research design, I wanted each participant to construct a guided concept map of their experience with employability. I have used concept mapping in an earlier study (Batra, 2018; Batra, 2021) and thought that it was a useful tool for the topic and context of research, particularly in helping me visualise the broader themes emerging from participants' accounts. However, once face-to-face interactions were suspended due to the pandemic, I altered this aspect of the research design. Asking participants to construct virtual concept maps could be technologically challenging, especially since it is unlikely that they would have used such software before. Therefore, I decided to use them as a tool for data analysis, rather than data generation.

To elaborate, concept maps are a way of visually representing thought processes, verbal ideas, and lived experiences. They represent thoughts and ideas as nodes, connected by lines or arrows to denote relationships. These result in various types of illustrations, from simple linear diagrams to complex networks. In the current study, concept maps were utilised to provide a visual snapshot of the rich, descriptive data collected through interviews with participants.

Originally, concept maps were designed to test student knowledge of the same ideas taught by different instructors, or at different points in time, especially in science education (Kinchin, 2015). In other words, they were developed to test understanding of the same phenomenon experienced by different individuals, or in different settings. This is similar to my intention with the current study, as explained in section *3.2. Epistemological stance*. Similarly, I decided to include them in the current study to reliably ensure participant understanding and in-depth reflection of employability.

Kinchin (2016) suggested that concept maps are a powerful tool for creating and assessing knowledge. While they lend themselves well to quantitative data analysis, they have the potential to generate rich, visual stories. Novak (cited by Kinchin, 2015) suggested that concept mapping can be used to integrate new and existing knowledge. This suggestion provided an opportunity for conducting semi-structured interviews with participants, and following them up with a visual representation of the interview in the form of a concept map, as a form of coding for thematic analysis.

Therefore, in the current study, the concept maps presented in *Chapter 4. Findings: Homegrown* and *Chapter 5. Findings: Glocal* reflect the coding strategy used in the thematic analysis of findings. Whereby, each node represents a category or code that emerged from analysing the views of all participants in a specific stakeholder group (Creswell, 2012; Merriam and Tisdell, 2016). This allowed for a within and across institutional comparison of similarities and differences in views (Merriam and Tisdell, 2016).

I first read through each individual transcript to remind myself of the story each participant was trying to tell. Next, I weaved that into the narratives of other participants from the same stakeholder group, within the same discipline where applicable (civil or computer engineering) and at the same institution (*Homegrown* or *Glocal*) (see *Table 3.3.3. Description of individual participants* for participant or stakeholder group types). Then, I constructed one concept map for each of these emerging groups. For example, I developed one concept map from both transcripts of career services' staff members at *Glocal* and another one from the single transcript of the career services' staff member at *Homegrown*. I developed one concept map for all the programme leadership and faculty members in civil engineering at *Homegrown* and another one for the same types of participants at *Glocal*. Therefore, only prominent codes, rather than every emerging code, will be presented in the analysis. I constructed the concept maps using the website wisemapping.com.

According to the literature reviewed, concept mapping has not been used in employability research before. However, I have conducted a small-scale qualitative study using concept mapping to elicit the perceptions of employers and teaching staff related to key employability skills (for a more detailed description of concept maps and their application to employability research, see Batra, 2021). Methodologically, this form of data analysis allowed me to collect rich data about concepts and experiences, which was then analysed to highlight collective themes in the data. In terms of content, it allowed me to illustrate how different people know of, or think about, the same concept of employability. In fact, constructing the maps myself avoided the potential issue of participants drawing theirs in unstructured styles and sizes, and allowed for a direct visual comparison of participants' views (McMahon, Wright, and Harwood, 2015).

Diagram 3.6.2. Key and sample of a simple, linear concept map illustrates the format that I used in constructing the concept maps for data analysis in this study. The central node represents the participant group type, in order to guide the reader's understanding. This branches out into main areas, categories, or codes that emerged from participant interviews. Solid lines depict a strong and direct relationship between codes. Supplementary or complementary ideas, that were not discussed at length, are represented by soft-edged, oval nodes. A background or mediating factor, such as an environmental, political, legal or social circumstance, is connected to another node with a dotted line and an arrow depicting the direction of influence. Likewise, dotted lines and arrows between any other nodes depict the direction of their relationship(s). A leveraging factor, or one that positively influenced embedding and dissemination of employability is depicted with a (yellow) star, while a hindrance is depicted with a (red) hexagon.

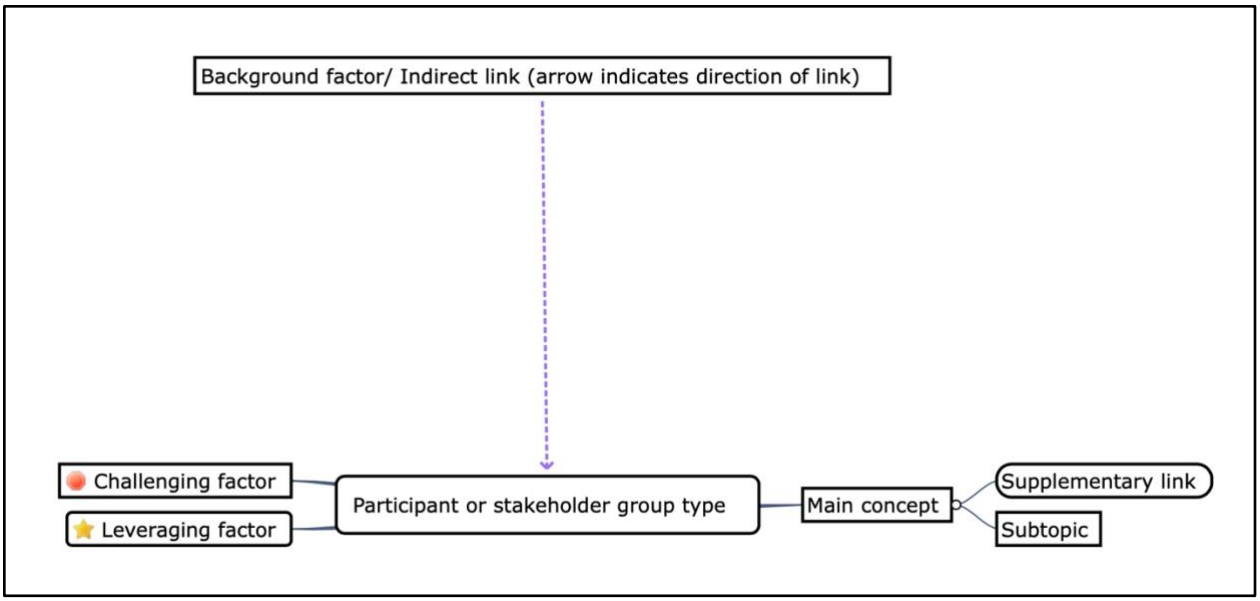

Diagram 3.6.2. Key and sample of a simple, linear concept map

Instructions on how to access all the concept maps generated in this study, for high-resolution viewing with the ability to zoom in, can be found in *Appendix E: Concept maps (online).*

The next section will explain how these concept maps were used in eliciting overarching themes in the findings from this study.

3.6.3. Thematic analysis

In general, interviews and focus groups lend themselves well to thematic analysis, whereby the focus is on eliciting salient ideas or concepts from participant responses (Creswell, 2012; O'Sullivan, 2015). I believe that solely eliciting themes from interview transcripts would not do justice to the depth of individual participant responses, even though there were only a few participants per group in most cases. In my view, this would undermine individual accounts in pursuit of collective opinions. Therefore, scaffolding the thematic analysis by constructing concept maps helped me to systematically categorise the collective views of participants, while giving importance to individual ones at the same time.

After developing the concept maps for each participant group, I analysed them for overarching themes that related to the research questions. In doing so, I noticed three major themes that related specifically to each research question. For example, the data showed that there were evident differences between the two institutions' views of employability and their consequent impact on developing graduate identities. Therefore, this emerged as one of the major themes drawn for analysis of the findings (Creswell, 2012). The three major themes are analysed, in turn, in *Chapter 6: Analysis and discussion of findings.*

Data analysis will be presented separately for each institution, starting with *Homegrown* (*Chapter 4. Findings: Homegrown*) and then moving on to *Glocal* (*Chapter 5. Findings: Glocal)*. *Chapter 5. Findings: Glocal* will highlight institutional differences compared to *Homegrown*, while describing the views of participants from *Glocal*. Finally, *Chapter 6. Analysis and discussion of findings* will collectively analyse the key themes emerging from these findings, before relating them to employability literature.

I selected this order of presentation simply because I started the data collection process with participants at *Homegrown*, and so, it was easier for me to visualise and verbalise the accounts in the same order. Within each chapter, the findings from the web data analysis will be presented first, followed by those from the administrative offices, before moving on to the stakeholders from the civil engineering programmes, and finally, the computer engineering programmes. I felt this structure would do most justice to the participants' views, in giving them due weight individually, within the groups they represented, and as part of the institution as a whole. Presenting the findings in an alternative format, such as by stakeholder type, rather than by institution, had the possibility to confuse readers, or draw an incomplete picture of each institution in their minds.

So far, this chapter has presented my relationship to data enquiry and epistemological beliefs, the resulting research methods and design, as well as the data collection and

analysis techniques. In its final section, this chapter will now discuss data measurement considerations as they apply to qualitative research and, in particular, to this study.

3.7. Validity, Reliability, and Generalisability

The methodological aim of this study was to uncover in-depth perceptions of various stakeholders of the civil and computer engineering departments at *Homegrown* and *Glocal*, related to employability and graduate identity development. The small-scale nature of this study meant that it would compromise on some aspects of validity, reliability, and generalisability. These data measures are typically associated with quantitative methods, and have to be adapted or re-named in accordance with the objectives of qualitative research (Bryman, 2016). Therefore, I tried to ensure data quality by following the procedures listed below.

3.7.1. Validity

Validity pertains to measuring what the researcher actually sought out to study. I aimed to ensure a high degree of internal validity, or the match between my observations, participants' views, and my analysis, by conducting a thorough literature review, followed by the use of research methods that would result in in-depth accounts (Bryman, 2016). I also used respondent validation in order to strengthen the internal validity and credibility of this study. I did this by sending the audio recordings and interview transcripts, to each participant for verification, before interpreting them (Maxwell, 2009). This gave them a chance to suggest changes to the views they explicitly stated in the online interviews. Since this was done offline, it also allowed participants to overcome the possible shyness and discomfort of face-to-face interactions, and add to, or delete, views expressed in the interviews (Creswell, 2012).

Construct validity, or operationalisation of the variables being studied, including the concept of employability, was ensured by first checking how each participant conceived employability, and then clarifying what it meant in context of the current study.

My own experience in studying and working at American and liberal arts institutions across the UAE helped immensely in evaluating the authenticity and quality of participants' views. This was especially true because I had not directly interacted with any participant in an official capacity but was aware of colloquial references at each institution (McLean, Abbas, and Ashwin, 2018). Furthermore, using concept maps and thematic analysis allowed for a clear connection to be established between individual and group perceptions, which added another element of construct validity to the study (Gray, 2014; Yin, 2014). Finally, considering data solely from undergraduate programmes starting from the literature review through to the data collection, ensured consistency in data analysis.

3.7.2. Reliability

Reliability, or dependability as it is referred to in context of qualitative research, relates to the replicability of data and research. Since I was the sole researcher, the study is naturally low on internal reliability. However, I ensured the dependability of research by keeping an "audit trail", or a systematic account, of every phase of the research process (Bryman, 2016). I strictly followed the data collection protocols and documented all thoughts and observations rigorously for each participant. In addition, I operationalised the concept under study (employability) prior to starting each interview, enhancing the replicability of this study.

However, as with all qualitative research, there is a reasonable risk of the identity of the researcher and changes in environments over time significantly impacting the results of the study, should it be repeated even under the same circumstances (Mwangi and Bettencourt, 2017; Yin, 2014).

Prior to the onset of pandemic-related restrictions, a few participants had already constructed concept maps on their own during the in-person interviews (see section *3.4.1. COVID-19 pandemic: Alterations to the study design*). However, in order to

maintain consistency across all participants, I did not use those concept maps in data analysis, and constructed new ones from their interview transcripts. Finally, using concept mapping as a tool for data analysis allowed me to perceive participants' stories from various angles, both individually and as groups (Dahlgren et al., 2008; Rosenberg, Heimler, and Morote, 2012; Richardson, 1997 cited by Higdon, 2018).

3.7.3. Generalisability

As a small-scale case study, especially given the unique characteristics of each unit of study, this piece of research does not claim to be generalisable to other institutions or situations, within the region or beyond. Gray (2014) and Friedensen, McCrae, and Kimball (2017) suggested that while qualitative research, especially phenomenographical research, may not be generalisable in the true sense of the word, it allows instead for transferability, or the usefulness in informing future research.

Methodologically, the study can generalise to other institutions, or the same ones at a different point in time. This is especially true because of the participation of various stakeholder groups in this study, which allowed me to holistically combine their experiences to ensure reliability and ultimately, generalisability (Mbabazi, 2013).

According to Geertz (cited by Bryman, 2016), obtaining "thick" descriptions from participants, as was the case in this study, also ensures transferability (or external validity) for qualitative research, where readers can accurately judge whether the accounts are generalisable or not.

To summarise, this chapter described the two cases where data was collected for the current study. These were both liberal arts institutions in the UAE, offering a range of undergraduate degrees to ethnically diverse groups of students. One of these universities, *Homegrown*, was established in the UAE while the other, *Glocal*, is an international branch campus. Both have quickly established themselves as reputable institutions. Within these two institutions, the civil and computer engineering

undergraduate degrees were chosen for participant recruitment, based on their varying employability outlooks in the local and international labour markets. Within each institution, members of the career services' office, international education office, institutional research office, leadership and faculty, student body, and alumni were recruited for participation in the study.

In trying to offer an in-depth analysis of how employability was embedded and enacted at these research sites, I designed this study from a constructivist perspective and analysed the data using a phenomenographic lens. The primary goal of the data analysis was to present participants' constructions of their environments and elicit similarities and disparities in their views. In keeping with these preferences, I chose semi-structured interviews and focus groups as the primary data collection methods. I analysed the data using visual and descriptive thematic analysis. I first constructed concept maps from the codes and categories elicited in the interviews for each participant group. Then, I analysed these maps thematically within the context of their stakeholder group and institution type, before generating broader, overarching themes from the collective findings from both institutions. This helped to elicit both individual constructions of participant experiences and comparative, group perceptions. The next few chapters will present the findings of this study, first from *Homegrown* and then from *Glocal*.

Chapter 4. Findings: *Homegrown*

This chapter will first describe *Homegrown*'s publicly-held views towards employability, as described on their website and in their course catalogue, before moving on to an analysis of findings from the semi-structured interviews I conducted with participants therein. Consequently, *Chapter 5. Findings: Glocal* will do the same for the data gathered at the second institution, in comparison to the findings presented here. *Chapter 6. Analysis and discussion of findings* will then analyse the findings from both institutions relative to employability literature.

The analysis presented here follows the rationale described in sections *3.6.2. Concept maps as a tool for thematic analysis* and *3.6.3. Thematic analysis*. To recap, the findings will be presented in turn for each stakeholder or participant group type. I will draw one concept map to illustrate a snapshot of the codes or categories emerging from the collective interview transcripts of each group. Then, I will analyse this concept map and the transcripts to bring out key quotations, ideas, and themes that address relevant research questions.

As a reminder, instructions on how to access all the concept maps generated in this study, for high-resolution viewing with the ability to zoom in, can be found in *Appendix E: Concept maps (online)*.

It is important to keep in mind that while each stakeholder group had relatively few participants in itself, collectively the groups represented views down the university hierarchy. In doing so, the selected sample revealed the multilayered nature of perceptions and interpretations of employability at each institution.

Table 4. Homegrown: Participant's designations and names lists the participant groups involved, individual participant names (changed for ethical reasons), and their designations, to give the reader a sense of the relative interaction, influence, and power each stakeholder group had over the employability initiatives at *Homegrown.*

Participant group type	Participant designation	Participant name (pseudonym)
International education staff	Director of the international education office	• Milla Hansen
Career services' staff	Director of the career services' office	• Amine Sulaiman
Programme leadership, faculty members, and curriculum committee members	Programme head of civil engineering	• Aftab Arshad
	Faculty member (and internship coordinator) for civil engineering	• Amer Khaled
	Programme head of computer engineering	• Carim Saleh
	Faculty member of computer engineering (and member of the curriculum committee for computer engineering and civil engineering)	• Jules Matthieu
Graduating students	Graduating civil engineering students	• Ameera Saeed • Hashem Maher • Nashwa Mostafa • Qasim Shabbir • Rahul Lakhani
	Graduating computer engineering students	• Jacob Lobo • Kissa Tantawy • Maria Bilal • Shehroz Ali
Alumni	Civil engineering alumni	• Louis Guillaume • Maged Esmail
	Computer engineering alumni	• Ahmed Abu Youssef • Fadel Mahfouz • Raed Abd El Kader

Table 4. *Homegrown*: Participants' designations and names
The names of participants and departments have been changed for ethical reasons (See section *3.5.5. Privacy and confidentiality* for details)

4.1. Employability at *Homegrown*: Publicly available information

This section discusses employability-related information available publicly on *Homegrown*'s university and departmental webpages. The rationale for using website data prior to analysing the primary data generated in interviews is described in section *3.6.1. Web data analysis.*

4.1.1. About *Homegrown*

Homegrown's website positions it as a liberal arts institution with a focus on excellence in teaching as well as in research, while equipping graduates with the skills, knowledge, and motivation necessary to navigate careers of the twenty-first century.

The institute envisions to be recognised globally, but as a leader in the Arab world, for its outstanding teaching, learning, and research. The mission states that *Homegrown* aspires to educate students with a philosophy of lifelong learning and contribution to society in terms of their intellect, ethics, and moral responsibility. In describing the curricular philosophy, *Homegrown* is described as a liberal arts institution, offering an American-style education that is grounded in the cultural context and societal norms of the UAE.

In embedding this into the curriculum, *Homegrown*'s course catalogue states that students must complete 30 per cent of their courses in areas such as history, Arab cultures, arts, literature, human interaction, behaviour, natural sciences, ethics, math, statistics, communication, writing, and information and computer literacy. In addition to a specific number of courses students must take in each of the aforementioned categories, they can choose a few of their own interest, across any discipline. Students do not have to declare their preferred specialisation at the time of admission, and may take up to two years to do so. In a liberal arts philosophy, this allows them to explore disciplines before settling on learning, in-depth, about one or more of them. *Homegrown*

has an inclusive campus living community whereby international students typically reside on campus.

This information suggests that while *Homegrown* aspires to be a globally recognised name, it banks heavily on its reputation within the Middle East, attracting students from these countries, and allowing them to experience a taste of western education. In doing so, the curricular philosophy is inspired and accredited by western educational bodies, while retaining the values of living and working in the UAE or nearby countries. This information alone, implies that culturally, graduates may be more prepared to succeed in the local labour market as opposed to a global one.

The webpage for engineering programmes does not make any such distinctions. However, it emphasises that *Homegrown*'s engineering graduates are prepared to take on careers in a range of industries, governmental departments, consulting enterprises, and entrepreneurial ventures. At the same time, they are also equipped to undertake advanced studies leading to careers in research, teaching, and engineering management, while leveraging this knowledge towards careers in other professions such as law, medicine, and public service. This information positions *Homegrown*'s engineering department in an interdisciplinary light, while compromising on the specialised technical and vocational quality that engineering degrees are known to offer.

The civil and computer engineering programs are accredited by the Commission for Academic Accreditation (CAA) in the UAE and the Accreditation Board for Engineering and Technology (ABET) in the US and, in order to graduate, students must complete a four- to six-week internship.

4.1.2. Civil engineering at *Homegrown*

As implied above, the civil engineering webpage describes the programme as broad, rather than specific, allowing students to develop a foundation in structural engineering, construction, water resources, geotechnical, environmental, and transportation

engineering. The programme description also emphasises the increase in construction, and consequent employment, within the region. However, the mission of the program asserts that students will be instilled with the highest level of technical preparation, along with leadership skills, a philosophy of lifelong learning, and ethical responsibility. One out of three programme objectives specifically focuses on preparing graduates for successful careers, with skill development in the areas of critical and independent thinking, leadership, communication, and decision making. The other two programme outcomes focus on societal responsibility and further education.

4.1.3. Computer engineering at *Homegrown*

The computer engineering webpage positions the programme as a rewarding experience for students to undertake, preparing them for technical roles in business, research, government, and higher education. Interestingly, this page does not mention entrepreneurial capabilities that are typically associated with computer engineering applications. Likewise, the mission of the programme makes a generic claim to educate students for careers in computer engineering, albeit placing emphasis on effective communication, team-based learning, and leadership skills. As with the civil engineering programme's objectives, the remaining two for computer engineering also emphasise professional development and global responsibility. Relative to the civil engineering student outcomes, these ones focus more on solving complex problems and communicating effectively, while generating new knowledge and learning about a broad range of applications including computer architecture and design, computer networks, databases, and software engineering.

4.2. The international education office at *Homegrown*

Diagram 4.2 represents the key features of *Homegrown*'s international education office, as they relate to employability and as the director of the office, Milla Hansen, expressed during her interview. As explained in section *3.6.2. Concept maps as a tool for thematic analysis*, the nodes represent each code or category of importance that emerged during

our discussion, that related in some way to the research questions. I will now summarise this diagram before eliciting key quotations from, and analysing, the prominent themes that this interview highlighted.

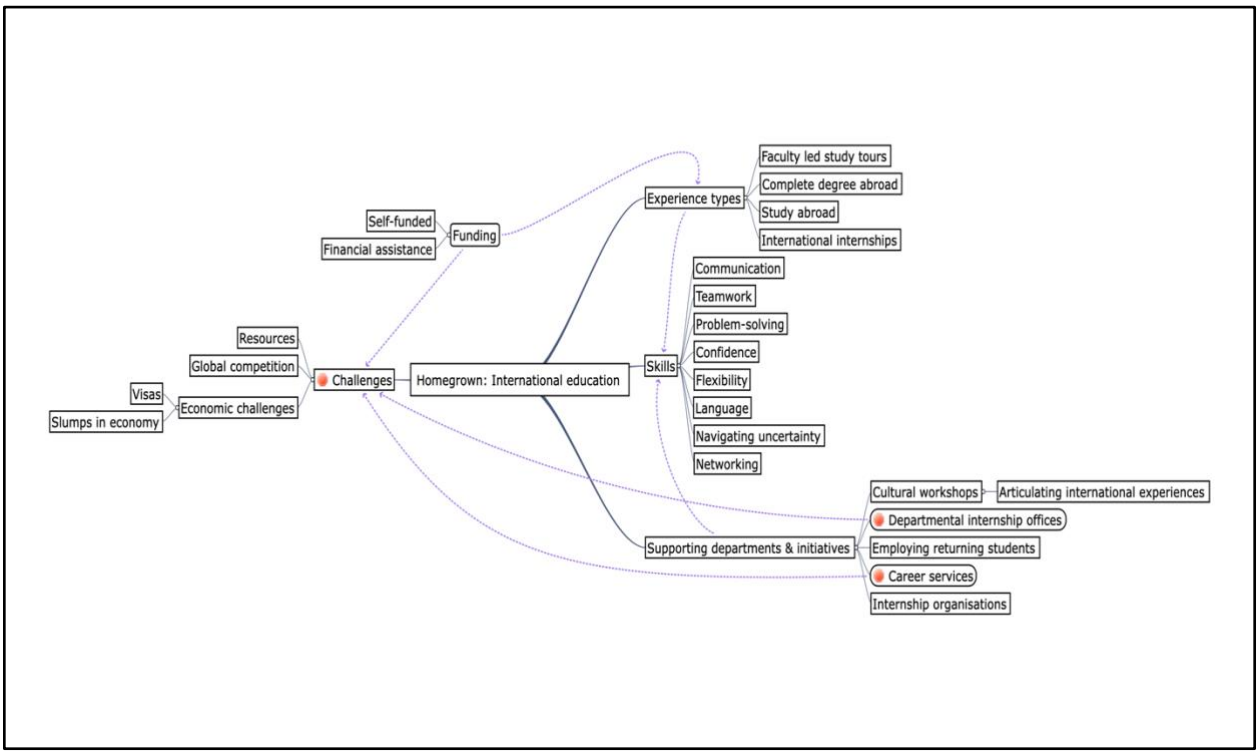

Diagram 4.2. Concept map for the international education office at *Homegrown*

At *Homegrown*, the international education office was responsible for handling experiences that related to any stakeholder going abroad, or coming in to, the university including faculty-led study tours to local and international sites, international internships, students completing their degrees at an international institution, and students visiting another institution. In particular, this office designed cultural orientations and liaised with internship organisations, both locally and internationally. They worked with the intra-university career services' office and departmental internship coordinators, although not collaboratively or cohesively. Hansen, who oversaw the strategic direction and operations at the office, expressed her frustrations by saying:

> It's challenging to work with other internship . . . offices . . . the business school has [the] most organised . . . and professional one, so they're easier to work with. Right now, I'm not even aware that engineering has the one person who used to run it.

Employability skill development was a key feature of their work. This included enhancing teamwork, networking, personal development, and intercultural communication competencies. Their efforts were hampered by slumps in the local economy, visa restrictions for students travelling abroad, particularly Arab and South Asian students, hyper competition in global labour markets, and a lack of internal funding. Hansen asserted that, "[employability] needs a lot of strengthening here at this university. I think it's a [strategic] goal but I don't think that we have the resources and infrastructure in place to really support that."

From my interview with Hansen, it appeared that the office of international education at *Homegrown* had student employability at the heart of their philosophy, despite structural forces in the economy hindering their full potential. In particular, the office strategised to ensure that students who used their services were equipped to enter international job markets and navigate cultural differences with ease. While Hansen did not specifically mention the liberal arts in this context, I think the office was equipped to complement a liberal arts curriculum.

4.3. The career services' office at *Homegrown*

I conducted one interview at the career services' office at *Homegrown*. The participant was the director of the office, Amine Sulaiman, managing their strategic direction as well as day-to-day operations.

Diagram 4.3. shows that the office conceived its operations to fall under three main branches: interactions with employers, interactions with students, and developing relationships with other departments. In particular, Sulaiman's office managed the semi-

annual career fairs and regular industry awareness sessions with prominent employers; advised students on curriculum vitae (CV) and cover letter writing; helped students in developing a personal 'brand' for themselves when searching for jobs; and, liaised with academic departments to facilitate student internships and projects that required employer involvement. However, during the interview, Sulaiman placed more importance on employer and interdepartmental relationships.

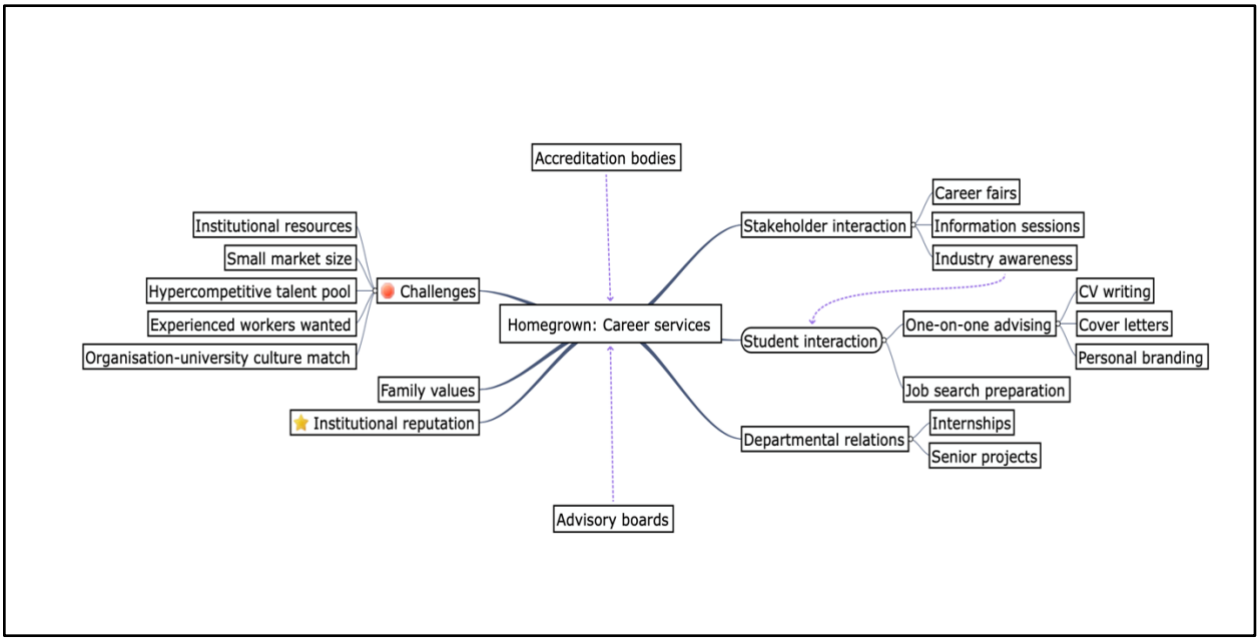

Diagram 4.3. Concept map for the career services' office at *Homegrown*

Sulaiman said that career development efforts are "cascaded to the college internship coordinators and they work together [with career services] to help the students get ready for [the job market]". This suggested that the career services' office worked more cohesively with the academic departments than the office of international education was able to, whereby Hansen was of the firm belief that working with internal departments was a difficult task to accomplish. This may suggest that the mandatory internship component of the curriculum at *Homegrown* was a factor in bridging communication between the career services' office and the academic departments. Perhaps the office of international education was not perceived by academic departments to assist in employment-related matters, which was true for the most part.

In fact, Sulaiman asserted that:

> At the moment, [we are] more focused on third- and fourth-year [students]. We have to start as early as day one . . . and move forward with developing employability skills. However, at the moment, the main focus is juniors and seniors, because they will be required to go on an internship.

This statement highlights the amount of effort dedicated to the mandatory internship requirement, making it the centre of the career services' office's operations.

According to Sulaiman, curriculum advisory boards and accreditation bodies impacted their operations indirectly, due to the influence on curricular structure and internship requirements. Sulaiman was quick to caution that despite employers being represented on the curricular advisory boards, "academia is moving slow as compared to industry". He reiterated that it is perhaps the most important area for universities to focus their operational efforts, given that technology is rapidly changing but the curriculum is lagging behind.

Finally, the regional reputation of the institution enhanced graduates' abilities to find suitable employment while family and cultural values were seen to impact students' decisions about graduate education, discipline of study, and industry of work. However, Sulaiman pointed out that employers in the region preferred experienced employees rather than fresh graduates, and that matching the university culture with local employers was a challenge due to the liberal arts focus of the curriculum. Furthermore, a low supply of jobs in the local market combined with a competitive talent pool made it challenging for recent graduates to find employment in the UAE. Like Hansen, Sulaiman commented on the lack of institutional funding and resources being pooled into students' career development at *Homegrown*.

Based on my interview with Sulaiman, the career services' office at *Homegrown* seemed to follow a skill-building approach towards employability, rather than one

focused on students' holistic employable identities. Interestingly, Sulaiman reflected on employability as 'skills' throughout the interview, despite starting the interview by agreeing that employability encompassed much more than just skills. For example, he said, "we should look at [employability] from a holistic point of view, which is developing the right skills, from day one onwards." However, there was little mention of the impact of the liberal arts on employability, so it could be a matter of disconnect within the institution rather than an institution-wide approach focused solely on employment and employability skills.

Sulaiman's input was crucial in selecting the civil and computer engineering programmes for this case study (a detailed rationale can be found in section *3.3.2. Sampling procedures: Selecting the disciplines of study*).

4.4. The civil engineering programme at *Homegrown*

The previous sections in this chapter have described the views and experiences of administrative support departments at Homegrown. The next few sections will describe the perceptions and experiences of participants directly involved in the civil and computer engineering programmes, including programme leadership and academic staff, graduating students, and alumni. The views of these participants perhaps hold most validity and authenticity related to each programme's curriculum, employability prospects, and employment norms and challenges. This is because these participants either have direct influence over, or are direct consumers of, employability programmes at Homegrown. In their totality, the views of all participants combined will show how employability is enacted by different facets of the civil engineering programme.

4.4.1. Programme leadership and faculty members of civil engineering at *Homegrown*

I interviewed two participants in this group: the programme head of civil engineering, Aftab Arshad, and the internship coordinator, Amer Khaled. Both participants were also

faculty members in the department of civil engineering. Therefore, both of them had strategic as well as operational input into the curriculum and any employability-related efforts, although Arshad had the most decision-making power over the programme.

As *Diagram 4.4.1.* shows, it emerged from the interviews that Arshad and Khaled were proud that the curriculum offered students various opportunities to build their employability skills whereby laboratory- and project-based learning featured heavily in the curriculum, allowing students to experiment with real-world problems and ideas.

Khaled managed the mandatory internship experience for students in the department. He hinted that prominent employers had an agreement with the department to hire a certain number of students from *Homegrown* each year. In describing the process of securing internships, Khaled referred to *wasta,* the Arabic word that is colloquially used to mean knowing someone who is in a position to influence a course of action, such as getting a job. In this case, Khaled both had *wasta* at organisations of interest, where he knew prominent employers who could hire students from *Homegrown*, and acted as a source of *wasta* for students, by referring them to organisations that showed interest in hiring.

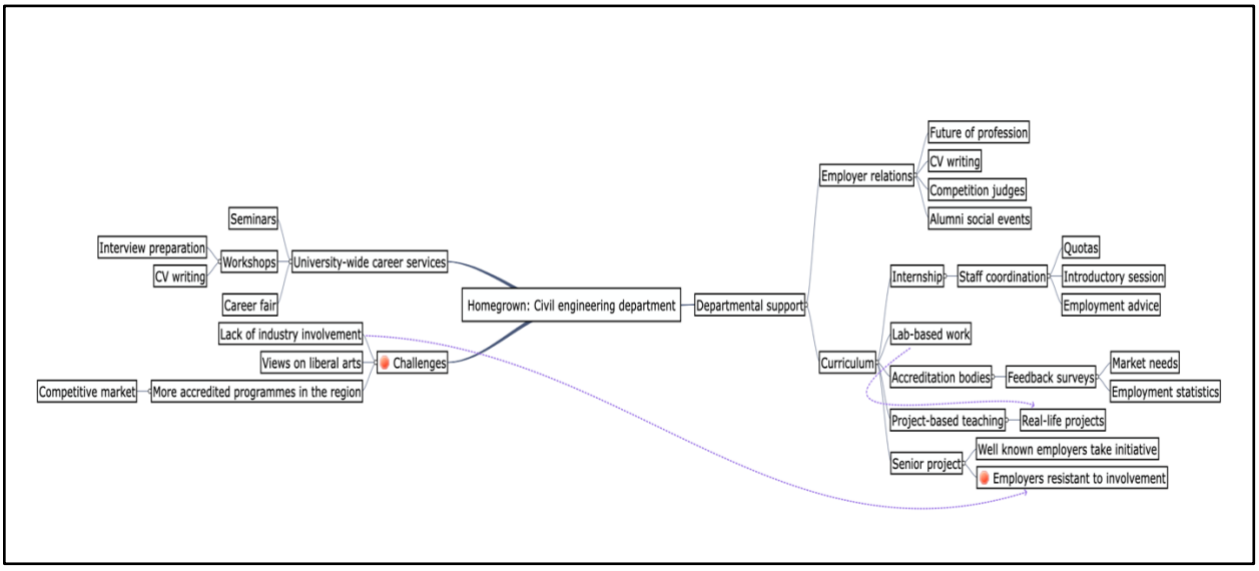

Diagram 4.4.1. Concept map for civil engineering programme leaders and faculty members at *Homegrown*

Similar to what Hansen at the international education office had expressed about working with the career services' office, Arshad and Khaled also believed that the career services' office offered supplementary, not collaborative, support by organising the university-wide career fair, advising workshops, and lectures by employers, while professors in the department helped with CV and cover letter writing.

However, liaising directly with employers is what gave the department insight into future industry trends. Generally, both Arshad and Khaled reported that employers were hesitant to get involved in the university's efforts towards employability. This was a challenge for the department because they believed that collaboration between industry and academia was the key to ensuring graduates' seamless integration into the job market and mutually beneficial relationships for all stakeholders. Khaled emphasised how crucial employer engagement was, by saying that:

> The job market is not like before . . . the opportunities are not that many . . .and it's becoming very competitive . . . it's not like before . . . our university being the [only] ABET accredited college in the UAE. Now, most of the universities are accredited.

Even then, Khaled felt that the positive reputation of the university in the region enhanced student employment, although it was time they started weaning off it. For instance, he added, "I would say probably . . . before we [were] arrogant . . . we need to get away from [relying on our reputation] because of the [reduction in] new [student] enrollments."

Both Khaled and Arshad were initially confused about the meaning of liberal arts and its impact on the engineering curriculum. However, both went on to agree that the liberal arts courses were essential in developing workplace and life skills, indicating that according to them, the purpose of higher education is broader than employment. Even then, they referred to specific course and subject types, and not the overarching liberal arts philosophy in developing employability for STEM disciplines.

Arshad stated that:

> In general, [a liberal arts education] helps . . . because . . . employability is not just to get a job, but also [to] become a responsible citizen . . . of course, there is always some debate. . . continuous debate going on. . . that we may reduce some liberal arts component and put some more technical components [in the curriculum] or vice versa.

From these interviews it seemed that employability in the civil engineering department was not just owned internally, but was controlled extensively by factors outside the university. For instance, the department internally had a network of prominent employers and could bank on the university's reputation and accreditation. However, the department's ABET accreditation was losing its initial charm, as other universities became ABET recognised. Employers were hesitant to engage with the department due to time and motivational constraints, and the notion of *wasta* as 'influential networking' was an important cultural norm in securing jobs and internships. Most importantly, Arshad and Khaled's views did not seem to suggest that the liberal arts were being given their due importance as an educational philosophy that impacted the strategy and operations of the university and its curriculum. Rather, it appeared that they were making allowances for courses outside the technical, civil engineering curriculum, because they were expected to do so, by the university's leadership.

4.4.2. Graduating civil engineering students at *Homegrown*

It was likely that students had similar experiences and power structures in the university policy chain. Therefore, I opted for focus groups, instead of individual interviews, with graduating students. Students are the ultimate consumers of employability offerings. Thus, making them an essential stakeholder in this study. In this particular group, there were five students: Rahul Lakhani and Hashem Maher, who were graduating within a month of our conversation; Ameera Saeed and Qasim Shabbir, who were graduating within a semester; and, Nashwa Mostafa, who was graduating in a year. Of the two

students who were graduating immediately, Lakhani had a job offer that was withdrawn due to pandemic-related budget cuts and was considering looking into further studies. Maher was looking into options to pursue graduate studies at *Homegrown*, if he was able to secure funding. Shabbir was going to begin his job search and Saeed and Mostafa had delayed plans to undertake a summer internship due to restrictions imposed by the pandemic.

As *Diagram 4.4.2.* shows, for these civil engineering students graduating from *Homegrown*, employability initiatives came from three distinct outlets: the career services' office, the courses offered by the civil engineering department, and support from other departments.

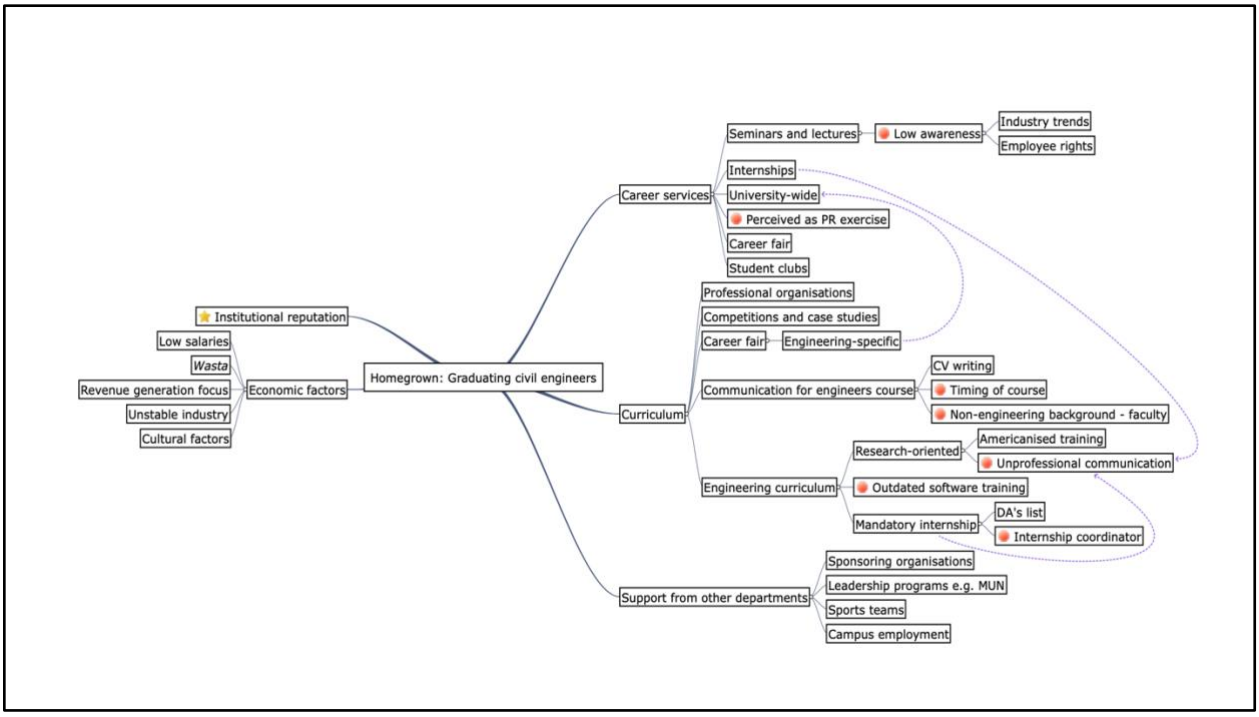

Diagram 4.4.2. Concept map for focus group with graduating civil engineering students at *Homegrown*

All students in this group described the university's reputation positively using phrases such as "one of the most premier universities in the country" that provides a "good backing" and "good credibility". Mostafa considered her sponsorship from a local organisation as a significant source of employability, while two others credited campus

employment opportunities and the international education office with helping to make them their employable selves.

According to this group, the career services' office offered seminars and lectures by employers, which helped to develop knowledge of industry trends and employees' rights. However, most students in this group criticised the lack of effective communication from the career services' office and believed that there was low awareness around these events, partially blaming it on unprofessional and "lazy" communication. Shabbir said that:

> Students are distracted by like millions of things in a day . . . we can't even sit down and think for a minute . . . I'm not like pointing any fingers but like generally I do feel like on a communication level, they are grossly like unprofessional . . . there are professors in the civil engineering department who just are so . . . lazy is the word that I would want to use . . . in communication and correspondence.

Note that Shabbir brought in the communication style of the departmental faculty members while reflecting on the career services' office, indicating that he perceived it as a university-wide issue. Taking on from Shabbir's point, Lakhani admitted that he did not know who the internship coordinator was, while Saeed and Mostafa were unaware that such a person even existed in the department. Mostafa added:

> I think what would be helpful is . . . getting one-on-one assistance from them . . . and I'm not sure . . . maybe . . . I didn't try to contact them or something . . . but I don't know how they would be contacted.

Student clubs, some internships, and university-wide career fairs were arranged and managed by the career services' office, but students perceived employer relations as a Public Relations (PR) exercise on the employers' and the office's part.

Questioning the effectiveness of the university-wide career fair and the supply-demand disequilibrium of job opportunities, Saeed added:

> A lot of times I feel defeated when I go to career services and they ask me to fill out a form, right? And I'm like . . . I know I'm not getting [this internship]. You know, like there's 100 people to fill . . . this very form before me, I know 100 people that will fill this form after me.

The engineering department offered an engineering-specific career day, which students believed was better targeted towards part- and full-time positions that suited their needs and aspirations. A significant amount of time was spent during this focus group with students discussing the DA's list. Saeed recalled:

> What [the] university did that was like the most helpful, at least for me, was my department assistant gave me a . . . gave anyone who asked really . . . a list of all the companies within UAE or any that she has . . . with their Human Resource (HR) contacts for you to email… That's basically how I got my internship.

Shabbir recalled a different experience:

> I only stayed [at my internship] . . . for two weeks because it was a horrible experience . . . but that is something I got from [the DA's list] . . . I probably went through, like, four pages until I realised that . . . half of these people don't work there anymore.

Two students were quick to interrupt here. Lakhani explained that "[the DA] has a lot of things to deal with . . . there needs to be a specific person that should be assigned for each and every major under the career [services'] department that can keep doing this." Dispelling notions that this was a formal initiative owned by the civil engineering department, Saeed added that "she did this of the out of the kindness of her heart, so don't take this as like an initiative from the department. It was really an initiative from her

because she is like an amazing person." Therefore, given that a DA's job description is unlikely to relate to student employment, this list might have been compiled as a record of student internships over the years, and then shared with current students looking for opportunities. Thus, the purpose of gathering this information was different from that of distributing it, making the list seem unprofessional and outdated.

Within the taught curriculum, a specific course designed to foster communication skills in engineers featured heavily in this focus group conversation, with some students saying that they got to explore writing engineering-specific résumés through this course. However, two students were scheduled to take the course after they had already completed their mandatory internship, making the course redundant and demotivating for them and indicating that course planning, at the departmental level, needed to be more efficient. Furthermore, students complained that professors teaching the course had non-engineering backgrounds, so they were not fluent in constructing technical résumés. The general consensus across the group was that the liberal arts curriculum was effective, but the course structure of civil engineering was too demanding for students to truly learn from courses outside the discipline.

Finally, the cultural norm of *wasta* (see section *4.4.1. Programme leadership and faculty members of civil engineering at Homegrown*) emerged as a demotivating factor for expatriate students in this group while *Emiratisation*, the policy to integrate nationals into the workforce, seemed to play a part in expatriate students' difficulties in looking for a job. Lakhani argued that searching for jobs as an expatriate in the UAE was extremely challenging because, if students were to go back to their home countries in the Levant region, North Africa, or South Asia, they would be paid an "abysmal amount" for civil engineering jobs. On the other hand, Saeed, an *Emirati*, put a "weird spin on things", in her own words. She said that:

> For me specifically, having [any] degree from this university . . . helps me. Someone like me who might work at governmental institutions [and] would

> probably have an office job . . . might not need practical knowledge as much as others in this [group].

This particular quote not only illustrates the disparities between UAE national and expatriate graduates entering the local labour force, but also highlights cultural norms in employment. For instance, in Arab and South Asian cultures, women are less likely to work in physically demanding or male-dominated industries, such as working on construction sites. However, in using phrases such as “someone like me” or “as much as others in this [group]”, Saeed gave away that she was reflecting more on her citizenship status and less on gender norms in employment, since there were other female participants present. This quote also uncovers a layer of challenges that future expatriate graduates may face when looking for employment in the UAE, as nationalisation policies take shape. Whereby, hiring practices may favour nationals not just in terms of their citizenship, but also in terms of having a lower threshold of qualifications required from them to compete with expatriates for the same jobs.

This focus group highlighted the confusion over the role of the career services’ office in the development of individual employability portfolios, and overall graduate identities at *Homegrown*. More specifically, there seemed to be an overall disconnect between administrative offices and the civil engineering department. It appeared that the career services’ office was working on employability across the institution as a ‘one size fits all’ approach, whereas the department was trying to fill in the gaps left behind by adding on tailor-made initiatives. At the same time, course planning seemed to be treated as a separate entity, not aligning with the overall purpose of courses designed to foster employability. These frustrations were compounded by external factors in the labour market including governmental policies and cultural norms.

4.4.3. Civil engineering alumni from *Homegrown*

I interviewed two civil engineering alumni from *Homegrown*, Maged Esmail and Louis Guillaume. Both of them graduated in 2017 and searched for jobs exclusively within the

UAE. Esmail started with an unpaid internship upon graduation before moving on to a permanent position a few months later. He was also pursuing a master's degree at an international branch campus in the UAE. Guillaume found a job after approximately six months of searching. Both of them selected the UAE as their sole market of choice to work in, because they considered it to be the "pioneer" in construction. According to Guillaume, civil engineering projects in other countries are much smaller in scale compared to those found in the UAE.

Diagram 4.4.3. shows that, within the civil engineering department at *Homegrown*, Esmail and Guillaume credited the faculty for developing competencies that enabled them to be successful in their jobs. Namely, for helping with postgraduate study applications and search processes, creating awareness about industry trends, allowing the use of relevant software, and embedding project-based learning into the syllabi.

Praising the curriculum, Esmail said that, "we took some courses [in our undergraduate degrees] that I'm taking now in [my] master's [degree]". Guillaume's experience was similar and he recalled that "whenever I had an interview . . . I never felt that I had an issue with . . . presentations . . . so that helped me like, be easy with an interview."

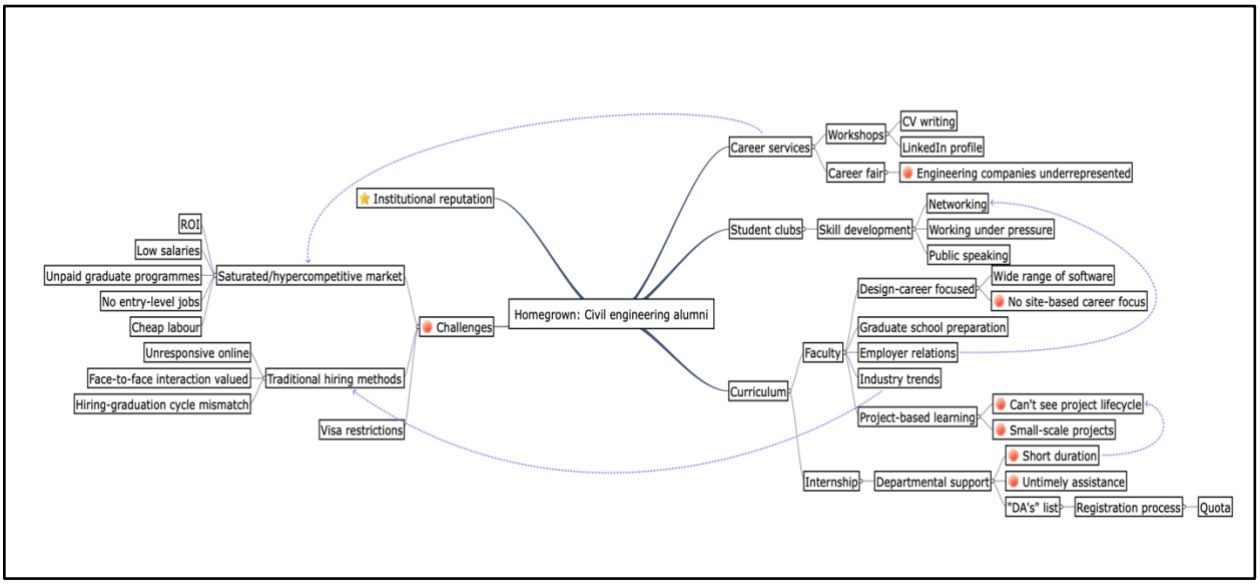

Diagram 4.4.3. Concept map for civil engineering alumni from *Homegrown*

However, both participants were displeased with their internship experiences due to a lack of mentoring and meaningful work therein. Additionally, given the short duration of internships, it was only possible for students to be involved in one stage of the project lifecycle, which is atypical of workplace projects. As with the current students, the DA's list featured in these conversations, although in a slightly different context. Esmail and Guillaume reported having to register with the DA for internships, rather than the DA handing them the list, as reported by the current civil engineering students. This made it sound like the internship coordinator position was a relatively new development, previously handled by the DA.

Esmail believed that employers in the region "are not really interested in [investing in fresh graduates]." He added that *Homegrown* should help students to network with employers and instill better collaboration between current students and alumni, not just "[for] social [or] publicity reasons." In fact, Guillaume thought that obtaining assistance from the university to find a job "give[s] you an edge" because you are not "just someone in the market", indicating that *Homegrown*'s reputation positively impacted graduates' job search experiences.

Outside the department, both alumni got assistance with CV writing from the career services' office and also participated in student-run organisations or clubs at *Homegrown*, which helped them develop networking and communication skills. Esmail and Guillaume, like Saeed and the other civil engineering students at *Homegrown* (see section *4.4.2. Graduating civil engineering students at Homegrown*) thought that engineering companies were underrepresented at the annual career fair. In fact, Guillaume said that, "you'll always hear about the huge companies . . . but the mid-range or the smaller companies that maybe [have] a higher chance of hiring . . . no one talks about, no one helps you with." This reinforces the potential strategy of the department or institution to solely develop goodwill with prominent employers, enter into contractual relationships to have a specific number of students hired from *Homegrown*, and gain more visibility as a university of choice for big employers.

Both Guillaume and Esmail extensively reflected on the challenges they faced in the local labour market. They considered the local job market to be saturated with civil engineers. Starting salaries for new graduates were very low, graduate or leadership programmes offered by organisations were sometimes unpaid, there were very few entry-level jobs, and firms preferred cheap labour imported from other countries. Recalling a demotivating interview experience, Esmail said that:

> I was being interviewed [by] this manager and he had a pile of CVs on his desk . . . like so many CVs . . . when we were discussing the contract . . . he literally told me that if you turn down this contract, look at this pile, I can choose anyone and they will come and take the job.

Guillaume echoed the views of Khaled, the internship coordinator of civil engineering at *Homegrown*. He recalled the lack of online presence of UAE-based civil engineering companies and the need for *wasta*:

> [Hiring is] done through . . . either getting a phone call [or] knowing someone in the company . . . or walk-in interviews. Like, even [for] my company, if you open the careers' section on their website, go to jobs, you'll find . . . 50 jobs in the US and Canada [branches] and . . . in the UAE it's like two . . .so, the online presence in the UAE doesn't help much . . . it's basically nonexistent.

Esmail reiterated these views and said that:

> I tried applying for jobs online . . . It did not work. I never received a single reply from anyone in this country. Whereas my friend, he applied in three different countries . . . the UAE, Japan, and the UK. He got replies from Japan and the UK and he never got replies from the UAE. So, I think that companies do these online advertisements just for publicity, or because they have to do them . . . but in reality, it doesn't work . . . at least for civil engineers.

In addition, both participants were particularly discouraged with the lack of return on their investment into higher education, stressing that *Homegrown* advertised a much higher rate of return than what the market was able and willing to offer. It is interesting for me, as a researcher, to see that the liberal arts aspect of the curriculum was not mentioned at all by alumni, neither was multi- or interdisciplinary learning.

Guillaime and Esmail's views reaffirm the contradictions surrounding employability that emerged from the other interviews and focus groups with *Homegrown*'s civil engineering stakeholders. Namely, they validate the finding that the UAE's civil engineering industry has unique hiring practices that are not solely based on merit and exist largely outside universities' control. This aspect will be scrutinised further and in light of the findings from *Glocal*, in *Chapter 6. Analysis and discussion of findings*. Perhaps if I was able to recruit alumni situated in other countries, the findings from this section would be more expansive or generalisable to other geographic markets.

So far, this chapter presented the findings from stakeholders of the civil engineering programme at *Homegrown.* This programme was selected as one of the lesser employable disciplines and the concept maps and narratives both highlighted challenges specific to the UAE's civil engineering and construction labour markets. Now, this chapter will move on to a thematic analysis of findings from the interviews I conducted with the stakeholders from the computer engineering programme at *Homegrown*.

4.5. The computer engineering programme at *Homegrown*

So far this chapter's focus has been on the civil engineering programme at *Homegrown.* Now, it will shift to the computer engineering programme, selected based on its high employability rate as confirmed by Sulaiman, the director of the career services' office at *Homegrown*.

4.5.1. Programme leadership and faculty members of computer engineering at *Homegrown*

I interviewed two participants from this group: the programme head of computer engineering, Carim Saleh, who was also a faculty member in the department, and Jules Mattieu, a faculty member who served on the curriculum committee. This allowed me to understand whether and how employability was embedded in the department at a strategic and curricular level, as well as how it was enacted through teaching and departmental efforts. *Diagram 4.5.1.* illustrates the primary codes that emerged from these two interviews.

As the primary strategic and curricular decision-maker, Saleh credited departmental support, the adaptive computer engineering curriculum, and the mandatory internship component for being crucial in developing graduate employability. There was heavy reliance on administrative staff in the department to ensure success of these initiatives. The DA was responsible for making student announcements related to job opportunities with employers in the network, and also provided students with a database of past employers.

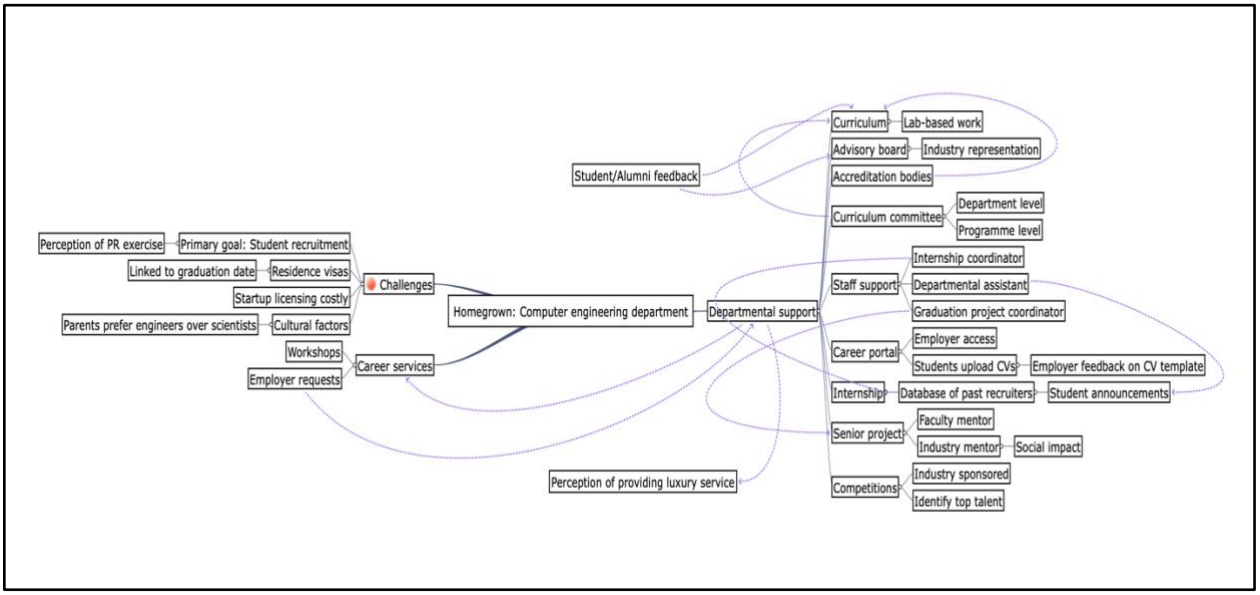

Diagram 4.5.1. Concept map for computer engineering programme leaders and faculty members at *Homegrown*

Saleh described the internship process as follows:

> We send out announcements to all the companies that hired our students in the past [for] internships or full-time [employment] and we have like 700 alumni . . . so we send them an announcement let's say in January [or] February saying our internship this summer is coming up . . . if you have positions, let us know.

Aside from the internship, Saleh praised the final year project, which was sometimes mentored by industry professionals, and competitions held by Multinational Corporations (MNCs) as prime drivers of employability. In addition, he was proud of the internal job application portal that was enhanced through industry collaboration:

> We approached four or five top HR departments, from those MNCs that deal with us like SAP, GE . . . we sat down with the five HR executives in those companies and we asked them, 'what is it that you look for in in a CV?' . . . and they basically gave us the point that they're looking for, you know, experience, certification, projects, and so on . . . so rather than every student uploading [a] different formatted CV . . . we give them like a form that they have to fill [based on employers' preferences].

These instances suggested that *Homegrown*'s computer engineering department had sufficient goodwill with MNCs looking to hire competitive graduates. Once again, the career services' office was in the background of the conversations with Saleh and Matthieu.

Saleh indicated that providing advice and assistance related to employment and employability was a "luxury service" that the department did not "need to offer" to the students. According to Saleh, "the challenge of . . . the internship is not really just to . . . get experience of working but to get the experience of finding a job…so the department continuously tells [students] we are not required to find you internships." This puts the responsibility of developing employability and finding employment on the students, with

the assumption that, putting in higher amounts of effort into securing an internship would generate a more useful experience, and give them a higher chance of finding suitable employment upon graduation.

Saleh was confident in the speed at which the taught curriculum met the needs of the "dynamic field" and the labour market. However, the challenges he highlighted reiterate that employability is shaped through extraneous circumstances, such as the unique economic and logistical challenges faced by graduates in the UAE. For example, residence visas typically expire soon after graduation, allowing students a small window of time to search for jobs before, rather than after, graduation. Students who would like to launch entrepreneurial ventures have difficulty in obtaining government-issued licenses for operation and securing funding, thus opting for seemingly stable jobs as opposed to launching creative and innovative startups.

On the other hand, Matthieu believed that curricular changes were "occasional" and that he often had comments from employers that *Homegrown*'s students lacked adequate communication skills. Despite that, when reflecting on the liberal arts curriculum's propensity to enhance employable identities, Matthieu said:

> You know, this is an American university, but not just by name . . . we are influencers . . . actually, before I come here . . . I thought maybe . . . it would be more localised and I . . . was a bit surprised to find that . . . It's really like a little bit of American education transplanted here . . . so, it's liberal you're right.

For me, this instance did not reflect a deep understanding of the liberal arts philosophy, let alone its ability to enhance employability in graduates. Instead, it suggested that Matthieu was using 'liberal' in the literal sense of the word, but that could be because of his lack of experience with a liberal arts setting. The conversation with Matthieu revolved primarily around the challenges faced by graduates in the labour market. Matthieu's views were valuable in understanding contextual forces in the labour market whereby he said that:

> Ten years ago . . . civil [engineering] was very popular and they had the highest enrollment and they were therefore, the most employable . . . there was high demand in the industry. Everything was construction around, you know, in Dubai . . . now, it's exactly the opposite . . . in fact, just today, we saw the recruitment numbers for next [semester] . . . and yes, we are sky high again in computer . . . engineering.

This quote brings the changing nature of the work landscape in the UAE to life. What was popular as a construction giant a decade ago, now seems to have moved towards becoming a technological hub. This partially explains the oversupply of graduates and the lack of suitable jobs in the civil engineering labour market, as demonstrated by civil engineering stakeholders in the previous sections.

Overall, I think this group appeared to be taking pride in their employability offerings, particularly Saleh, but came across as unauthentic in their approach, whereby they were engaged in such efforts for the reputation of the department rather than student success. Arguably, the two are related, but based on Saleh's words, public image seemed to take precedence over graduate employability.

4.5.2. Graduating computer engineering students at *Homegrown*

I interviewed four graduating computer engineering students at *Homegrown*: Jacob Lobo, Kissa Tantawy, Maria Bilal, and Shehroz Ali. Tantawy and Ali were graduating within the month of the interview and had started their job search process, while Lobo and Bilal were due to graduate in a year and were interning at local organisations.

The codes generated through this focus group, as shown in *Diagram 4.5.2.*, were very similar to those generated from the focus group with graduating civil engineering students at *Homegrown*. In that, students perceived that employability at *Homegrown* was positively impacted by the institution's reputation in the region; within the university, students primarily credited the curriculum and partially the career services' office for

employability development; and, employability was perceived to be hindered by forces outside institutional control.

In terms of the formal curriculum, the students in this group lauded the communication for engineering course as well as project-based learning. Lobo said that research, teamwork, and leadership skills were enforced “[through] project-based elective courses, [such as those on] mobile apps and deep learning, [as well as the final year project].” With a preference for a project-based learning approach, Lobo thought that classroom interactions for most other courses were primarily focused on professors lecturing and students listening, and termed it “very unhealthy” for employability. “Often, students will learn many things, but have no way to apply them . . . I [faced] this challenge personally when I was applying for an internship [because] my first interview was a practical one, [based] on programming”, he reflected.

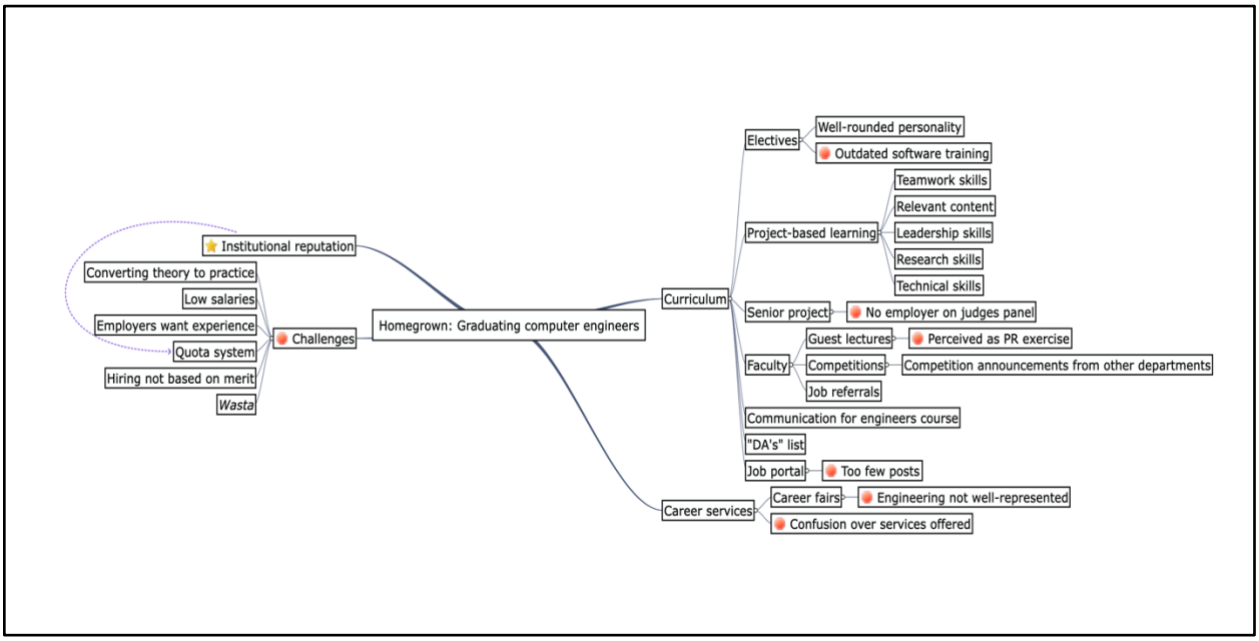

Diagram 4.5.2. Concept map for focus group with graduating computer engineering students at *Homegrown*

On a similar note, Tantawy appreciated opportunities such as cybersecurity and hackathon competitions, and the ‘CEO (Chief Executive Officer) for a day’ programme open to all enrolled students at *Homegrown* whereby “you get to spend one or more

days with the CEO of your choosing, including the CEO for Ferrero Rocher, Nestlé, Dyson, [and so on].” According to Tantawy, who was selected for this programme, “[this doesn’t just] open the doors to a lot of connections which we agreed on is a very important thing to have . . . but [it] also shows you a side of the professional world that you wouldn't otherwise see.”

Once again, the DA’s list was mentioned as an important source of internship and job applications (see section *4.4.2. Graduating civil engineering students at Homegrown* for a detailed discussion on this). While this group praised faculty members for referring them to jobs where they had *wasta*, the guest lectures were perceived as a PR exercise for the department, and the job search portal was criticised for not advertising enough vacancies. It is critical to note that what students perceive as a PR exercise on the leadership or faculty members’ part, would ultimately result in more goodwill for the department, and consequently, more or better visibility for these students, leading to possible employment opportunities for some of them.

Participants in this group did not indicate using the career services’ office for one-on-one advising. In fact, there was confusion around the services offered, where some students were not aware that they could avail one-on-one career advising. In addition, students did not bring up factors specific to computer engineering that enhanced or hampered their employability efforts and graduate identities.

The frustrations expressed by these students echoed those of the civil engineering students and alumni from *Homegrown*. Having *wasta* and being a UAE national were seen to enhance the ability to secure internships or jobs, with little consideration for merit. This was possibly due to an oversupply of graduates combined with the cultural values held by employers, whereby older employees were seen to be wiser, and familiarity in the form of an employee referral bred trust in workers. In addition, Ali experienced that entry-level jobs required work experience. He said:

> A lot of the jobs, even though they're labelled as entry level, for some reason they're marked as four to six years of experience . . . with technology that literally just came out last year . . . I think . . . the expectations of employers and those of graduates aren't on the same level.

Tantawy added that, “this is the exact same challenge that I [am facing] . . . so much so that I [have] focused my [job] search more towards like training programs and internships.”

Similar to civil engineering students’ views, reflecting on the career fair, Ali added that, “there [aren’t] a lot of options . . . unless you're a national . . . that's something that [*Homegrown*] could fix . . . the career fair had a lot of jobs if you were of other majors, finance mostly.” Bilal added that:

> You have to either be an Arab or an *Emirati* or even have Arabic fluency . . . I noticed it in companies like Microsoft. . . in this case we don't even meet the requirements, in which case . . . our technical qualifications are not even worth [it].

Graduating from a leading university in the region, Ali was critical of low-paying jobs, and expressed that the university set students’ expectations high, but the labour market often disappointed with scarce and low paying jobs.

This indicates that although different, both civil and computer engineering shared a curricular structure, benefited from each other’s strengths, and shared the same hindrances presented by external factors. Overall, this focus group discussion revolved generically around the engineering department and the institution, as opposed to bringing out experiences that related uniquely to studying computer engineering, or the liberal arts, at *Homegrown*.

4.5.3. Computer engineering alumni from *Homegrown*

I interviewed three alumni in this group: Raed Abd El Kader, Fadel Mahfouz, and Ahmed Abu Youssef. Abd El Kader and Mahfouz graduated from *Homegrown* in 2016, while Youssef graduated in 2017. Abd El Kader pursued a master's degree in the UK, and was working at an MNC in the UAE when our interview took place. Interestingly, he had started off his undergraduate degree in civil engineering but later switched to computer engineering when a friend convinced him that salaries for civil engineering jobs were low. Mahfouz was working at a local company in the UAE since graduating. Youssef pursued a master's degree in Scotland and was working in the UK at the time of our interview.

Diagram 4.5.3. follows a similar structure and generated similar codes compared to those from the interviews with civil engineering alumni at *Homegrown* (*Diagram 4.4.3.*).

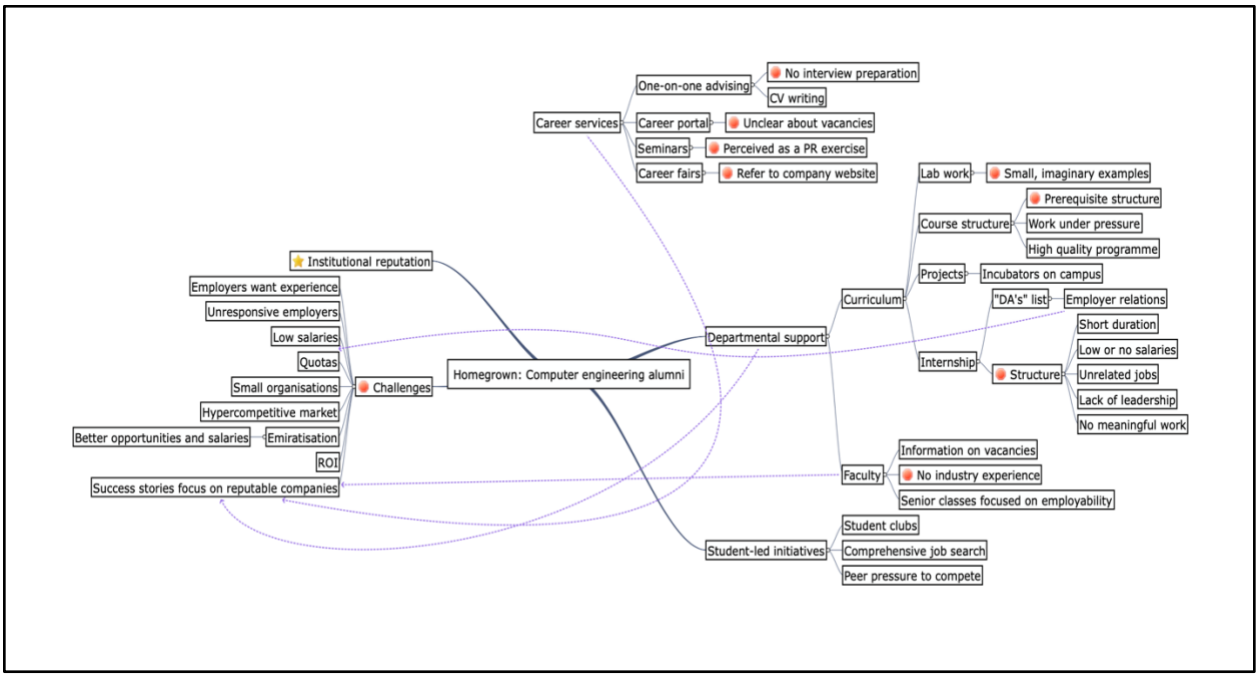

Diagram 4.5.3. Concept map for computer engineering alumni from *Homegrown*

In that, this group of alumni also recalled departmental support in the form of curricular requirements and participation in student clubs and organisations as impacting their employability. Similarly, they reflected at length on characteristics of the labour market acting as hindrances to employment and employability. Interestingly, this group perceived the career services' office as an entity that operated in the background, with no direct links or benefits to their employability experiences, despite the services available.

In terms of the formal curriculum, all three alumni credited faculty for connecting them with relevant employment opportunities, tailoring senior classes towards skills that would benefit students in the workforce, and providing a curriculum that had high expectations from students, similar to those at the workplace. However, for this group, laboratory and project-based learning was not very useful as the projects were limited in their scope and did not simulate real-world conditions. Reflecting on the resources and opportunities available, Mahfouz advocated that as a computer engineer, pitching ideas at a startup accelerator and creating the computer engineering student club on campus significantly contributed to his leadership skills and overall employability. Abd El Kader felt that his technical skills were lacking. He was frustrated that his manager said, "I don't see a computer engineer in you". On the other hand, Youssef attributed his success at his current job in Cambridge to a programming course he had taken in his undergraduate studies at *Homegrown*.

Across this group, the mandatory internship experiences were particularly unproductive. Recalling his experience, Youssef said that, "it became clear to me in about the first week that no one had time to teach me anything". He thought that internships in the region were problematic in general and it was commonly understood that you would be "sitting in the cafeteria for eight hours and then going home". A few MNCs, such as IBM, had internship programmes designed around student development. Mahfouz interned at IBM but said that he was very "careless" and "not into it" which is probably why IBM chose to give a full-time offer to other candidates, who were "more mature". Abd El Kader said that he worked under two alumni from *Homegrown* who treated him "like a

kid.” In fact, he added that, “I told the university about it and they’re like be happy that you actually got an internship.” However, when he got a full-time role at Microsoft, he recalled that:

> I received three four calls from professors and from the programme head . . . [saying] ‘congratulations, can you put your name on our portal?’. . . He’s like we like to put successful names [up] . . . but. . . aren't we all successful because we graduated?

This resonates with civil engineering students’ disappointment in the department’s communication being unprofessional and reminded me of the computer engineering programme head Saleh’s striking words, that helping students with internships was a “luxury” service being provided by the department. It is not surprising to me that Abd El Kader was made to feel privileged for having an internship to fulfill a mandatory graduation requirement.

Chapter 2. Review of the Literature suggested that WIL is the most common form of employability experience that universities offer to current students. As a researcher, I would expect that internships are the most direct and obvious link between academia and industry for employability development since they provide an outlet for operationalising skills and competencies, and applying them to workplace scenarios. More so, if they are built into the curriculum, then the leadership, administration, and faculty are responsible for assisting students with them, rather than perceiving it outside their job descriptions. However, from these interviews, the implied promise of internships feeding into graduate employability sounds like a façade. It makes both, the market and the computer engineering department, sound unprofessional.

Beyond the annual career fair, the career services’ office seemed to have no presence in alumni’s recollection of enhancing their employable identities during their undergraduate years. Abd El Kader recalled that some companies at the semi-annual career fair would ask them to apply for jobs online, making it pointless for students to

attend the event in person. For the same reason, Youssef referred to the event as "notoriously useless".

While alumni knew of CV writing workshops offered by the career services' office, they admitted to never attending such events as students. Mahfouz, however, took the office's assistance with refining his CV as an alum. In Abd El Kader's experience, the name of the university helped in securing interviews "because [it] is strong . . . but [in] the interview, we fail." Likewise, Mahfouz learned interview techniques on his own, because the university did not prepare students for behavioural questions.

Unlike others, the participants in this group made several references to peer pressure in using career services, applying to, and accepting or rejecting job offers. They also seemed to have a hierarchy in mind for what they considered prestigious organisations to work for. In particular, both Mahfouz and Abd El Kader made references to getting employment or internship offers from Fujitsu, but said that their friends worked for better organisations and at higher salaries, so they turned these offers down. They also complained that the department encouraged internships that paid meagre stipends, implying that they felt disrespected through this experience. These experiences made it sound as if departmental efforts towards graduate employability were window dressed, because the salary both participants quoted was much lower than average basic subsistence expenses in the UAE. However, it is unclear whether these were isolated instances, PR strategies, or an actual lack of adequately paid entry-level opportunities in the region.

4.6. Concluding thoughts on the findings from *Homegrown*

In portraying the views of participants across the civil and computer engineering programmes at *Homegrown*, as well as the international education and career services' offices, predominant themes emerged. In all of the participant groups, the focus seemed to be on local employment rather than employability as a part of a global graduate identity. The institution seemed to have a surface level approach towards incorporating

interdisciplinary courses into the curriculum to give it a liberal arts outlook. *Homegrown* appeared to have an esteemed reputation within the Middle East but lacked funding for improving resources and operations. Funding constraints were mentioned by the staff at administrative offices but not discussed at length in any interview. Structural forces in the labour market, particularly in the civil engineering industry, presented challenges for student and graduate employment and employability. Thus, while graduate employability is typically studied through the lens of higher education institutions, in this case, the primary hindrances emerged through economic, political, and social factors outside *Homegrown*'s control. These factors will be discussed further and in light of the literature and the overarching research questions, in *Chapter 6. Analysis and discussion of findings.*

This chapter presented the perceptions and experiences of the participant groups at *Homegrown,* in relation to the respective employability outlooks of the civil and computer engineering programmes. The next chapter will present the same for participant groups at *Glocal*, with an element of comparison to the findings presented in this chapter.

Chapter 5. Findings: *Glocal*

This chapter will follow the same format as *Chapter 4. Findings: Homegrown*. In that, it will first describe *Glocal*'s publicly-held views towards employability, as described on their website and in their course catalogue. Then, it will move on to an analysis of findings from the semi-structured interviews I conducted with participants therein. In doing so, it will add a comparative element to the findings from *Homegrown*. *Table 5. Glocal: Participant's designations and names* specifies the participant groups, designations, and pseudonyms used in text, so that readers can gauge the power dynamics of those I interviewed from *Glocal*.

As a reminder, instructions on how to access all the concept maps generated in this study, for high-resolution viewing with the ability to zoom in, can be found in *Appendix E: Concept maps (online).*

Participant group type	**Participant designation**	**Participant name (pseudonym)**
International education staff	International education specialist	• Vladimir Petrovicova
Career services' staff	Director of the career services' office	• Sara Davis
	Career advisor	• Hafizul Rahman
Programme leadership, faculty members, and curriculum committee members	Programme head of civil engineering	• Gregory Matthias
	Civil engineering faculty member	• Azim Abdel Fattah
	Civil engineering faculty member	• Carlos Hernandez
	Programme head of computer engineering	• Atticus Stephen
	Associate dean of computer engineering (also involved in curriculum development)	• Burak Soydan
Graduating students	Graduating civil engineering students	• Ishaan Ahuja • Zayan Afridi
	Graduating computer engineering students	• Akin Kwaku • Lana Ibtisam

Alumni	Civil engineering alumni	• Fahad Yusaf • Gilles Beauvais • Ivars Kauss
	Computer engineering alumni	• Aisha Al Qubaisi • Hala Samara • Kamel Sultan

Table 5. *Glocal*: Participants' designations and names
The names of participants and departments have been changed for ethical reasons (See section *3.5.5. Privacy and confidentiality* for details)

5.1. Employability at *Glocal*: Publicly available information

This section discusses employability-related information available publicly on *Glocal*'s university and departmental webpages. The rationale for using website data, prior to analysing the primary data generated in interviews, is described in section *3.6.1. Web data analysis.*

5.1.1. About *Glocal*

Contrary to *Homegrown*'s focus on being a leader in the region, *Glocal* positions itself as an international branch campus, established to address the complex challenges of higher education in the twenty-first century. These include a belief in the value of a liberal arts education, applying research to the benefit of society, educating students as true global citizens, and recognising the value of personal and cultural differences in pursuit of building harmonious societies. In doing so, the university is described as a liberal arts *and* science institution, indicating that all disciplines of study should benefit equally through this philosophy. The webpage asserts that *Glocal* attracts students from around the world, who live on campus as part of the liberal arts experience, in order to fulfill the principles described above. Students are not admitted into a particular programme of study. Rather, they are admitted to an undergraduate education or the institution as a whole, and can take up to two years to officially declare their chosen specialisation.

Glocal's vision states the importance of liberal arts at the core of its operations, along with asserting its mission to become an international leader in research, while promoting peace, cooperation, and productivity through education. Careers and employment are not specifically mentioned on *Glocal*'s webpage. However, the emphasis is on articulating that *Glocal* was established with the purpose of using its global model to form its backbone, while taking advantage of its location in the UAE to promote international relations, intercultural sensitivity, creativity, curiosity, and critical thinking.

According to the course catalogue, the curriculum integrates the liberal arts aspect in the following ways. Instead of taking courses across generic disciplines such as arts, literature, natural sciences and so on (as in the case of *Homegrown*), students at *Glocal* do so in topics of historic and contemporary global relevance, addressing modern global challenges. These courses include cross disciplinary knowledge merged under themes such as equality, justice, peace, global health, sustainability, and so on. Physical education is also a required component of the curriculum.

Even the engineering programmes are described as interdisciplinary. However, students have the option to select sub-specialities within their chosen disciplines. Therefore, upon graduation, students have taken several inter- and multi-disciplinary courses across engineering and other disciplines of their choice. The programme descriptions of civil and computer engineering portray them as theoretical, research-oriented degrees with a strong focus on innovation and entrepreneurship.

Like *Homegrown, Glocal*'s civil and computer engineering programmes are accredited by both, the CAA and ABET. However, work experience or internships are not required in order to complete either of these degrees.

5.1.2. Civil engineering at *Glocal*

Glocal's civil engineering departmental webpage provides specific details of student outcomes in terms of both, graduate studies and employment, including where students

have pursued further studies and gone on to work, with a specific emphasis on international universities and MNC employers.

Compared to *Homegrown*, *Glocal*'s programme learning outcomes are both, more complex and diverse. They place emphasis on solving engineering problems; developing novel solutions from a multidisciplinary standpoint that considers public health, safety, and welfare as well as political, economic, and societal factors; managing professional and ethical responsibilities; teamwork and communication; experimentation; and, the application of research to practice. This programme description sounds less technical and more multidimensional in practice, compared to that of the civil engineering degree at *Homegrown*.

5.1.3. Computer engineering at *Glocal*

Like the civil engineering department at *Glocal*, the computer engineering department also has a specific webpage that lists student outcomes in terms of the prominent higher education institutions and employers that have recruited *Glocal*'s computer engineering graduates.

At first sight, it is very surprising that the programme learning outcomes for computer engineering at *Glocal* are identical to those listed on *Homegrown*'s webpage. Having worked on programme development in the UAE, I know that the CAA mandates developing programme learning outcomes and requires very specific language to be used when drafting these. However, these learning outcomes are not just worded similarly, but they are in fact, identical on both webpages. I probed further to find out why this might be the case. According to the director of accreditation at *Glocal*, ABET accredited programmes follow learning outcomes set forth by the accrediting organisation. Therefore, it is not unusual for different universities to have the same learning outcomes, when accredited by an international body.

To recap, the outcomes for the computer engineer programme emphasise solving complex problems, communicating effectively, working in diverse teams, developing new knowledge, and applying it holistically to real-world problems, while learning about a broad range of applications. These learning outcomes are not specific to the discipline of computer engineering.

5.2. The international education office at *Glocal*

Diagram 5.2 represents the key features of *Glocal*'s international education office, as they relate to employability, according to the participant in this stakeholder category. I will now summarise this diagram before eliciting key quotations from, and analysing, the prominent themes that this interview highlighted.

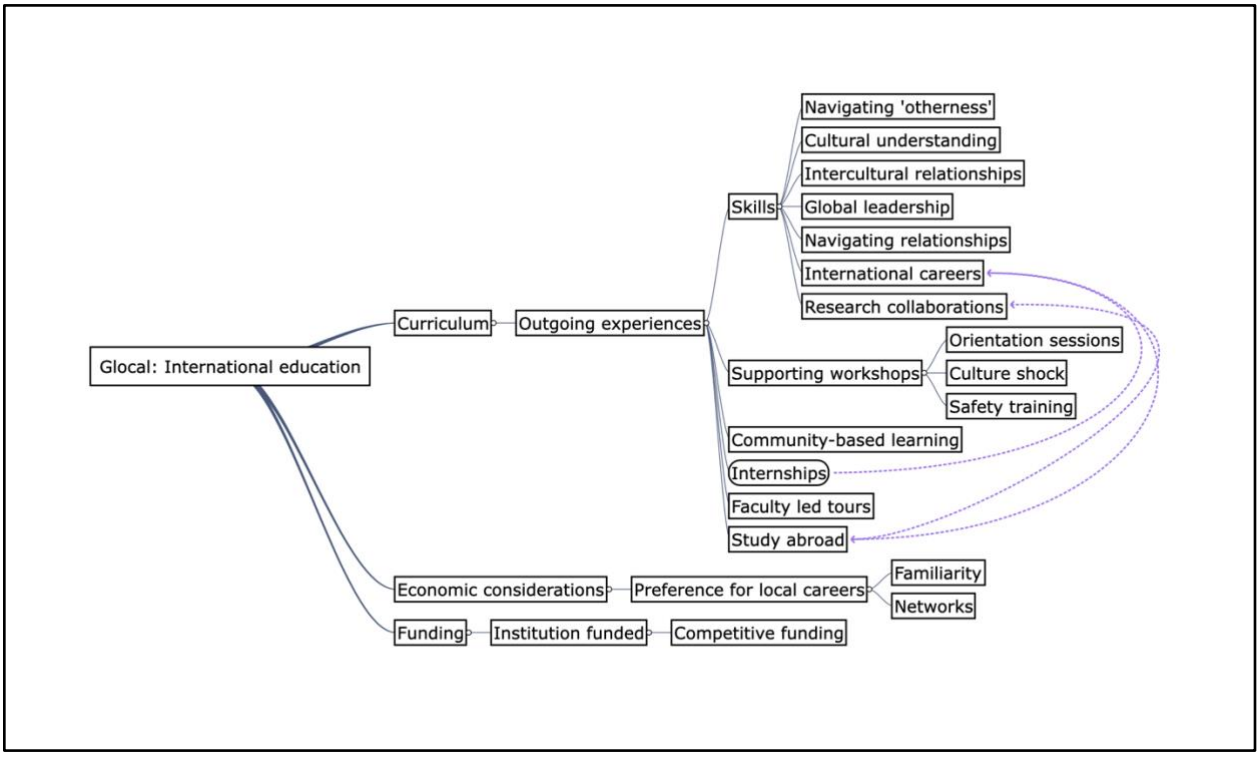

Diagram 5.2. Concept map for the international education office at *Glocal*

I interviewed an international education specialist, Vladimir Petrovicova, from *Glocal*'s international education office. Petrovicova's position at *Glocal* was significantly junior

compared to Hansen's at *Homegrown*, who was heading the international education office there. However, he had been a student at *Glocal* and later transitioned to working there, allowing him to experience both the design as well as the implementation of international education efforts at *Glocal*.

Diagram 5.2. has a similar structure and focus to *Diagram 4.2.*, which was developed from the interview with Hansen. However, there were two primary differences in the conversations about international education at each institution and, consequently in their concept maps. In *Glocal*'s case, internships were not a mandatory part of the curriculum and so, they barely featured in my conversation with Petrovicova. However, international education was embedded in *Glocal*'s curriculum, whereby it was mandatory for all students to spend at least two semesters at one of *Glocal*'s international study sites, fully funded by the institution. This made the office's operations much more significant and expansive in scope, compared to those at *Homegrown*.

The experiences curated by this office spanned both local and international environments but were less focused on employment and more focused on developing students' identities in relation to their own selves, other cultures, personal, and professional environments. This even reflected in the choice of terms used to describe the experiences crafted by the office. For example, referring to local day trips, Petrovicova asserted that, "[we don't call it a] trip because . . . [the] term 'trip' [has] an implication of something touristy which is not . . . right . . . that's why we call them seminars". This indicates that each experience is carefully designed in order to support, and not just supplement, the curriculum, with specific goals and outcomes aligned with disciplinary curricula.

Similar to my interview with Hansen, skill building featured extensively in my conversation with Petrovicova. However, the fundamental difference lay in the types of skills each office was trying to instill in students. At *Homegrown*, these were employment related, whereas at *Glocal* they were more inclusive of personal, professional, and intercultural situations. For example, at *Homegrown*, Hansen spoke of

navigating “uncertainty”. At *Glocal*, Petrovicova spoke of navigating “otherness”, which could encompass situations such as new or different workplaces, academic environments, friends’ groups, and so on. In other words, the focus at *Homegrown* seemed to be on steering adequately through life circumstances, whereas at *Glocal* it seemed to be on a resilient identity. For example, Petrovicova emphasised that:

> [International education helps students to] think critically about . . . what to expect [when they go abroad] . . . in terms of . . . cultural shock, [learning] to be objective observers of their own behavior, how to be cognisant of . . . the other culture . . . American culture, for example, is very highly publicised in media . . . but they've never really heard about . . . Chinese culture . . . so they need the extra preparation.

Despite internships not being a mandatory part of the curriculum, Petrovicova referred to assisting students with international research collaborations and work experiences as an essential part of their job. This indicated the implementation of a shared vision across departments at *Glocal*. In comparison, at *Homegrown*, there seemed to be uncertainty around the role and contribution of the international education office to securing internships, and especially research collaborations.

5.3. The career services’ office at *Glocal*

I interviewed two participants in this group: the director of the career services’ office at *Glocal*, Sara Davis, and a career advisor, Hafizul Rahman. This provided a cross-section of views, as Davis worked on aligning the office’s strategies with student success, while Rahman was more involved in the day-to-day operations, liaising with employers, academic departments, students, and alumni. This office was much larger in the number of staff members compared to their counterpart at *Homegrown*.

Diagram 5.3. summarises these two interviews, and is visually, and philosophically, more complex than that of *Homegrown*’s. While it shows some similarities to the

concept map for *Homegrown*'s career services' office (*Diagram 4.3.*), it also highlights stark differences, that I will now describe.

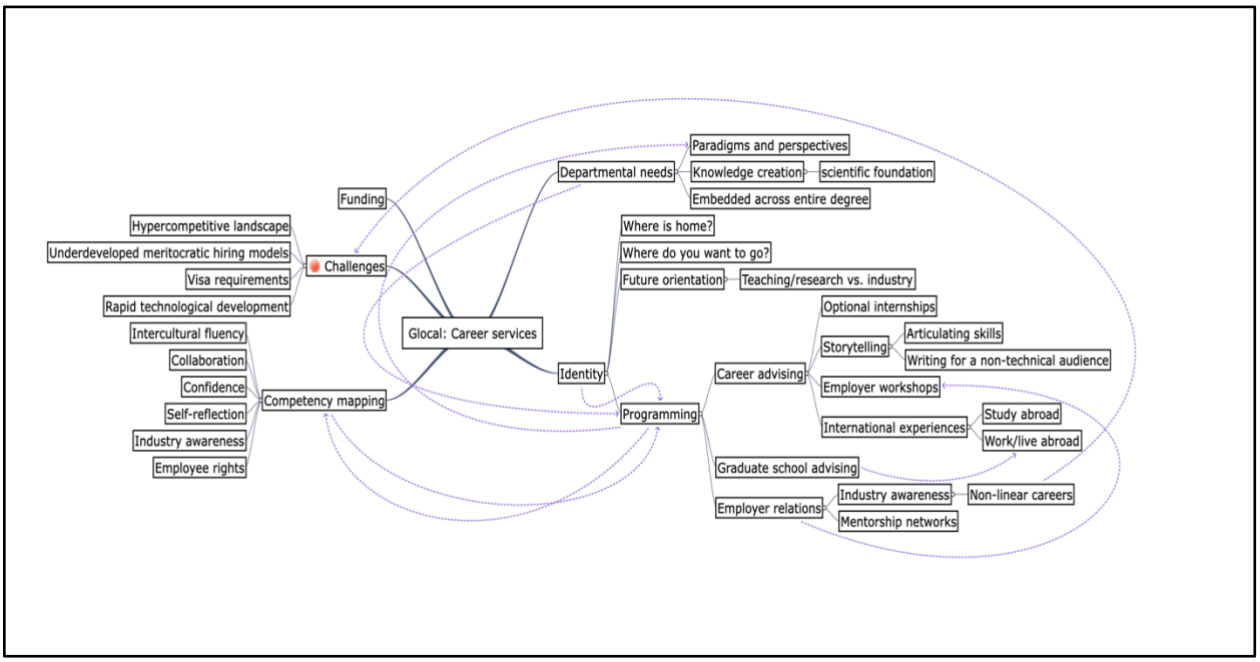

Diagram 5.3. Concept map for the career services' office at *Glocal*

Similar to the career services' office at *Homegrown*, Davis and Rahman described an overcompetitive market for graduates. In particular, Davis referred to the UAE's hiring landscape following "[an] underdeveloped meritocratic model of hiring." Explaining this term further, she added that, "it's very common that people have a position because they know someone [at the organisation] and less because they were skilled for it . . . not that they weren't also skilled for it." This concept of *wasta* was also mentioned by several participants at *Homegrown*, including the programme leaders of civil engineering, as well as the students and alumni in civil and computer engineering. This trend indicated that employability, at least locally, has an element outside the control of the university, whereby knowing someone in an influential role might automatically elevate a graduate into a preferable position, relative to other contenders for the same job.

The most significant difference in the views of Sulaiman at *Homegrown* and those of Davis and Rahman at *Glocal*, related to their conception of employability. From the beginning of the interview, Davis and Rahman's focus was clear: that the career services' office was developing identities tailored around students' own preferences and circumstances, and not just helping them secure jobs. Giving an example, Rahman elaborated that "there's always one question during our [career] counselling [sessions]: '[Where] is home for you and where [do] you see yourself going'?".

Such examples portray *Glocal*'s orientation towards shaping global citizens (as stated on their website), rather than securing local employment. Citing an example to illustrate the development of individual, responsible citizens further, Davis explained that:

> There's no mandatory internship . . . that was a decision made early on and it was a decision to develop a different perspective or paradigm . . . [that] these are things you do because you *want to* and not because you *have to* . . . that was a game changer.

This instance showed how the ultimate responsibility for developing graduate identities and portfolios at *Glocal* rested with the students, while the academic and administrative departments shared a vision for their success, and worked cohesively to implement it. Although this was true at *Homegrown* as well, the interviews therein suggested that students were either not informed about these services, or lacked the motivation to reach out to the career services' office to engage with them.

Students participated in one-on-one and group advising sessions with the career services' staff to learn how to articulate their skills and experiences to non-technical audiences. Davis described these sessions to be "[focused] on what we would call . . . bridge skills . . . the skills that help translate what [students have] learned in the classroom to the world of work."

Even in terms of mapping competencies as a measure of student employability, the career services' office at *Glocal* steered away from stereotypical skills such as communication and teamwork and instead assessed themselves on "career readiness competencies". Unlike traditional soft skills that employers demand, these competencies were more holistic and included industry awareness, intercultural fluency, collaboration, self-reflection, employee rights, and self-confidence, amongst others.
Internally, the office worked with professors who were "career champions" and very "student- centric". Feedback from such professors determined the types of employer events held on campus. In fact, the career services' office at *Glocal* was particularly attentive to the liberal arts dimension of the curriculum as a foundation for future-ready careers. Davis advocated this by saying that:

> We keep [telling students that just because you] studied engineering, you [don't] have to be an engineer, and that helps the students really find [a] niche market or opportunity . . . like just now we had a student who graduated [in] music but she's working in tech and she really loves her job.

The varying strands of career development described by Davis and Rahman showed that even though internships were not a compulsory component of the curriculum at *Glocal*, career readiness, particularly suited to a global labour market, was woven into the voluntary experiences offered to students. Furthermore, the roles of each member were clearly defined while maintaining the institution's overall paradigm of the liberal arts and its influence on developing well-rounded student identities.

Davis' and Rahman's views were crucial in selecting the civil and computer engineering programmes for this case study (a detailed rationale can be found in section *3.3.2. Sampling procedures: Selecting the disciplines of study*).

5.4. The civil engineering programme at *Glocal*

So far, this chapter presented narratives from participants at the international education and career services' offices at *Glocal*. Now, it will describe the views and perspectives of participants directly involved in the civil and computer engineering programmes, including programme leadership and faculty members, graduating students, and alumni. As explained in section *4.4. The civil engineering programme at Homegrown,* the views of these participants are particularly important in order to understand how employability is enacted by different stakeholders across the policy chain, as it relates to the same programme.

5.4.1. Programme leadership and faculty members of civil engineering at *Glocal*

Compared to the simple, linear, concept map developed from the interviews at *Homegrown*'s civil engineering department, *Glocal*'s was laden with interconnected concepts, a characteristic that reflects complex views and processes.

I interviewed three participants from the civil engineering programme at *Glocal*: the programme head, Gregory Matthias, and two faculty members, Azim Abdel Fattah and Carlos Hernandez. This allowed a comparison of the strategic as well as operational enactment of employability at *Glocal*. *Diagram 5.4.1.* shows that as with *Homegrown*'s leadership, the curriculum featured heavily in this conversation too, albeit for different reasons.

Matthias lauded the curriculum for being "modern and close to practice", the same way that Arshad and Khaled at *Homegrown* lauded their curriculum for project-based learning. According to Matthias, "we should be educating our students to find jobs, not just to gain knowledge . . . employability [is] really the ultimate goal [of higher education]."

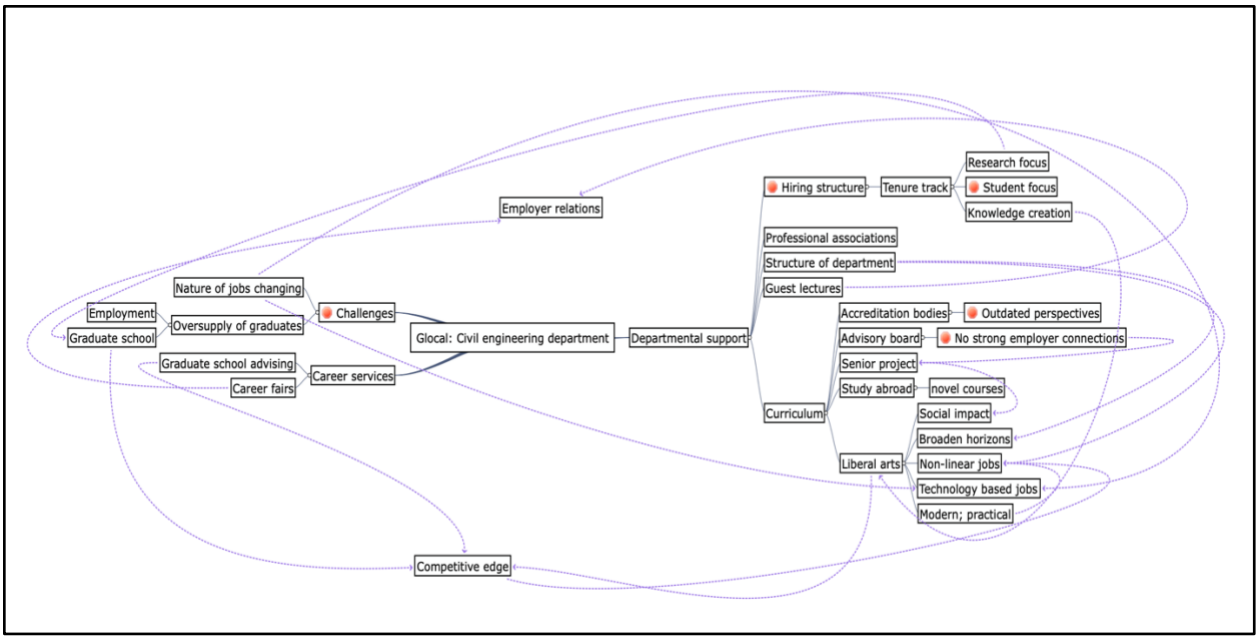

Diagram 5.4.1. Concept map for civil engineering programme leaders and faculty members at *Glocal*

As a key decision-maker on curricular matters for civil engineering, he had very different views on the liberal arts compared to Arshad, his counterpart at *Homegrown*. In that, he did not just reflect on courses outside engineering, but also did so on the philosophical implications of the liberal arts, including interdisciplinary teaching. For example, he said:

> [The last time I taught] transportation engineering . . . I introduced an open-ended component to the course . . . we would discuss what are the pros and cons of having autonomous vehicles . . . does it really save [power]? where are we getting the energy that we're using to . . . plug them . . . it's coming from some sort of a power plant . . . we are just changing the source [of power] . . . I felt that our students are like fish in water when it came to these open-ended, broad-thinking types of settings.

Fattah also agreed and offered an example from his own teaching, saying that:

> Civil engineers of today, and in the near future, will not be doing things the same way they used to . . . [for example], right now, when you think of hot places to

> work, Tesla comes to mind . . . it's an Information Technology (IT) firm basically . . . people use computers to do everything . . . when you work at Tesla, you're really writing software.

Fattah's views further confirm that the liberal arts philosophy was embodied by the actions of the leadership and faculty members of the civil engineering department at *Glocal*. While *Glocal*'s civil engineering programme was also ABET-accredited, another difference in their curricular philosophy, compared to *Homegrown*'s, was the belief that accreditation bodies are outdated in their expectations. For instance, adding on to his example of the changing nature of jobs in the twenty-first century, Fattah explained that accreditors have a very specific mindset that does not apply to the job market of the present or future. To the contrary, Arshad and Khaled at *Homegrown* believed that the employer feedback surveys mandated by accreditors helped them gauge the effectiveness of their programmes. While it may be a valid measure of programme effectiveness, in my experience of working with programme accreditation, sometimes such surveys are biased. In that, they are completed as a personal favour, and the results are written up to reflect a more positive reality than the responses show.

Furthermore, compared to *Homegrown*, *Glocal*'s department demonstrated more extensive employer and community outreach. The department offered guest lectures which helped students to network with employers and encouraged students to join relevant professional associations, such as the American Society of Civil Engineers. This enabled students to keep track of the latest industry research and trends.

Rather than a mandatory internship, all participants in this department believed that a compulsory practicum focused on social impact was particularly useful in developing graduate employability. Hernandez explained that this project allowed students to build an engineering system, such as housing or a source of water, in a developing community. It helped to introduce students to aspects of "global responsibility" and not just "responsible citizenship", as Arshad had described *Homegrown*'s programme outlook. The key difference in these terms, as I perceive it, shows *Homegrown*'s

engineers in a passive light compared to the more active role of *Glocal*'s engineers. Here, *Homegrown*'s engineers are perceived as responsible citizens of a country, limiting the geographic scope and impact of their actions, while *Glocal*'s engineers are shown to have far-reaching roles, no matter where they are situated. This ties back to the vision of each institution stated on their respective websites, with *Homegrown* positioned as a leader in the region and *Glocal* as a pioneer worldwide.

Similar to *Homegrown*'s participants, this group also spoke of the oversupply of graduates in the UAE's civil engineering job market. However, Matthias, Hernandez, and Fattah believed that an undergraduate degree in civil engineering was not sufficient by itself to lead to a satisfactory entry-level job, locally or internationally. They emphasised that going to graduate school gave students a competitive edge. Hernandez was quick to add that, "if there is a place in the world where civil engineering students can find a job, [it] is really the Gulf counties". However, credential inflation, combined with an undersupply of suitable jobs, has made civil engineering a lesser employable discipline, especially in the UAE. Once again, this points to how employability may be a strategic priority for higher education institutions, but is likely to be affected drastically by factors outside their direct control.

5.4.2. Graduating civil engineering students at *Glocal*

In this focus group, there were only two participants. This was because of two factors. First, the class sizes at *Glocal* are much smaller than those at *Homegrown*. Second, I decided to interview the students who were immediately available. Waiting longer to recruit more students would delay the study further, since it was close to the summer holidays.

Both participants in this group, Zayan Afridi and Ishaan Ahuja, were graduating within a month of the interview. They were in the process of looking for jobs but were also considering pursuing a master's degree, whichever option worked out first or better.

Diagram 5.4.2. shows very similar codes and structure to *Diagram 4.4.2.*, which was developed from the interviews with graduating civil engineering students at *Homegrown*. In that, their main sources of developing employability were the curriculum, the career services' office, and initiatives through other departments at the university. Furthermore, the reputation of the university positively impacted their opportunities, while structural factors in the local labour market hindered their ability to find a job within the UAE.

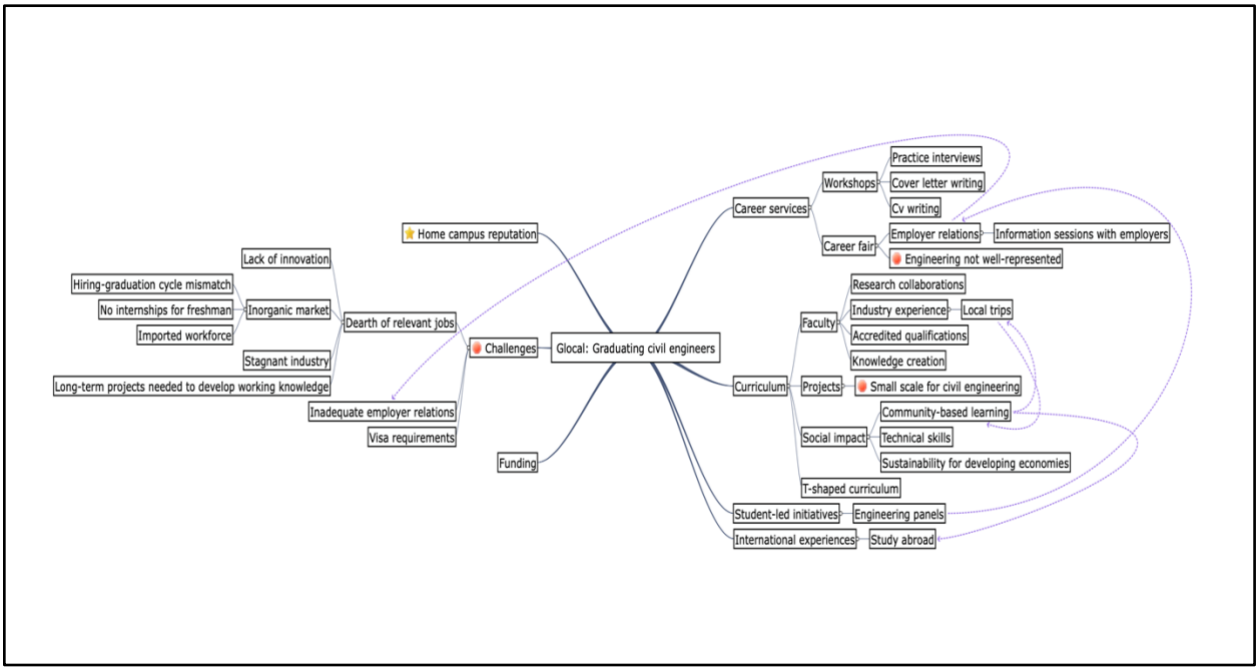

Diagram 5.4.2. Concept map for focus group with graduating civil engineering students at *Glocal*

Primarily, Afridi and Ahuja recalled the career services' office organising workshops that offered résumé and cover letter writing, as well as interview practice sessions. Ahuja mentioned that, in partnership with the engineering department, the office organised an "engineering week" with panel discussions from alumni and industry personnel, that was helpful in gauging industry trends and networking with potential employers. However, both students said that they did not attend these optional events because of their demanding workloads.

Afridi and Ahuja were critical of the university-wide career fair. Ahuja recalled that, "during the career fairs . . . I saw only three to four companies that [were] like . . . fully

dedicated to civil engineers." Afridi was critical of the civil engineering department and career services' office's ability to connect them to employers in a way that would help to build credibility. He said that:

> I don't think we have enough employer relations to actually get that first job . . . so I think there's a [missing] link between point A and point B . . . we are preparing for point B . . . but we don't have point A . . . I certainly thought of employability at the start of the degree as well . . . but it was just harder to get your . . . foot in the door . . . you don't have much to offer to companies and you don't have a lot of companies here.

Afridi's words suggest that while he was primed to think of employment and employability as the end goal of higher education, he felt unprepared to implement that goal. However, he seemed to have missed some opportunities to develop a network in the region, because of the heavy study load.

Having said that, Afridi generally sounded demotivated to search for jobs within the UAE, given the unique conditions of the labour market. He explained that:

> For me to get [substantial] experience, a civil engineering company needs to hire me for an internship at least for a few months . . . because of the nature of the work . . . however, computer engineering or computer science majors . . . can find smaller projects [and] internships, which can be remote, [for the same type of substantial experience].

This alludes to the construction-oriented labour market for civil engineers in the UAE, where the project life cycle is much longer than typical internship durations.

The economic landscape presented a dearth of relevant jobs for civil engineering graduates, with a stagnant, inorganic industry that lacked innovative practices. The

academic calendars and hiring cycles seemed to be misaligned, adding a further complication. Ahuja explained that:

> [Some] of the companies . . . hire in July [when] you would ideally have [had] your commencement and . . . left campus . . . it differs from company to company so that also makes it [hard to find a job in the] limited [window] available, [given that the expiry of student visas is also linked to graduation dates]."

This was also brought up by Saleh, the programme head of computer engineering at *Homegrown*, as a deterrent for expatriate students to work in the UAE or explore entrepreneurial pathways.

The market heavily relied on an imported, experienced workforce. Afridi analysed this by saying that, "the idea is to import . . . engineers or professionals with a few years of experience from developing countries and get them directly to work at companies over here . . . there is no organic pathway [to employment]."

Aspects of the formal curriculum, including international study and work experiences, emerged as the most crucial elements for employability development for this group. Ahuja described his experience of studying abroad at the host campus as "eye opening" because "[their] career fairs were much more aggressive." The curriculum's effect on employability was enhanced by the liberal arts or T-shaped aspect, which allowed knowledge creation in a breadth of areas, with specialisation in select few ones that students preferred. Explaining this, Afridi added that, "if I'm doing a class on governance and foreign aid . . . it does add [to] my experience to work in the development field as an engineer, which gives me a more rounded approach." Another aspect of studying abroad that Ahuja found particularly useful was the mandatory social impact project for engineering disciplines at *Glocal*, which was also mentioned by civil engineering faculty members. This initiative was seen to positively impact employability and bridge students' technical skills with real-world experience.

Ahuja described the structure of this project and his experience as follows:

> I went to Sri Lanka and did an ethnographic study . . . then I went to Mumbai . . . to design a chimney for [a slum] . . . these [experiences] . . . required some aspects of technical skills but also required me to . . . think more about communities and technologies [within these] communities.

This instance exemplifies *Glocal*'s stance towards a truly liberal arts education, even within STEM degrees. Whereby, higher education is seen to embody the development of students into responsible global citizens, taking on challenging tasks and improving the lives of others. In doing so, they are seemingly encouraged to think holistically about communities and use interdisciplinary skills in pursuit of improving the living standards therein. That is, not just solving workplace problems but rather, solving real-world issues. This experience also appeared to expose students to the complete life cycle of a real-life project that Afridi complained was not possible to experience in an internship. However, Afridi did not mention his own experience with the social impact project as a particularly salient one.

This focus group showed that *Glocal* had plenty of substantial experiences, both voluntary and mandatory, that would develop well-rounded graduate identities, whether in a direct quest for employability or not. However, opportunities that are stereotypically linked to employability, such as internships and full-time employment, faced uncertainty due to economic forces beyond the control of the university.

5.4.3. Civil engineering alumni from *Glocal*

I interviewed three participants in this group, Ivars Kauss, Fahad Yusaf, and Gilles Beauvais. All three graduated in 2019 from *Glocal.* At the time of the interviews, Kauss was working in an engineering-oriented, research position at *Glocal*; Yusaf was pursuing a master's in construction engineering in Canada; and, Beauvais was still looking for a job one year after graduating.

Diagram 5.4.3. is similar to *Diagram 4.4.3.*, which was drawn from the views of civil engineering alumni at *Homegrown*. However, there was one key difference in their views. In *Homegrown*'s case, the career services' office was seen to hover in the background, with no real effect on graduate employability. In *Glocal*'s case, alumni cited this office as one of the main contributors to their employable identities. In fact, Kauss emphasised that, it had the "most impact" on his employability, by providing opportunities like the career fair on campus, where he met and networked with an alum who was able to offer useful career advice. He also secured one of his two job offers through this fair.

At the same time, Kauss believed that "the entire infrastructure of the university" was involved in cohesively developing graduate identities. The university provided generous funding for a three-year project and an international internship that he was involved in; the academic department provided him with the necessary technical skills to undertake the project; and, the career services' office advised him on his job search materials.

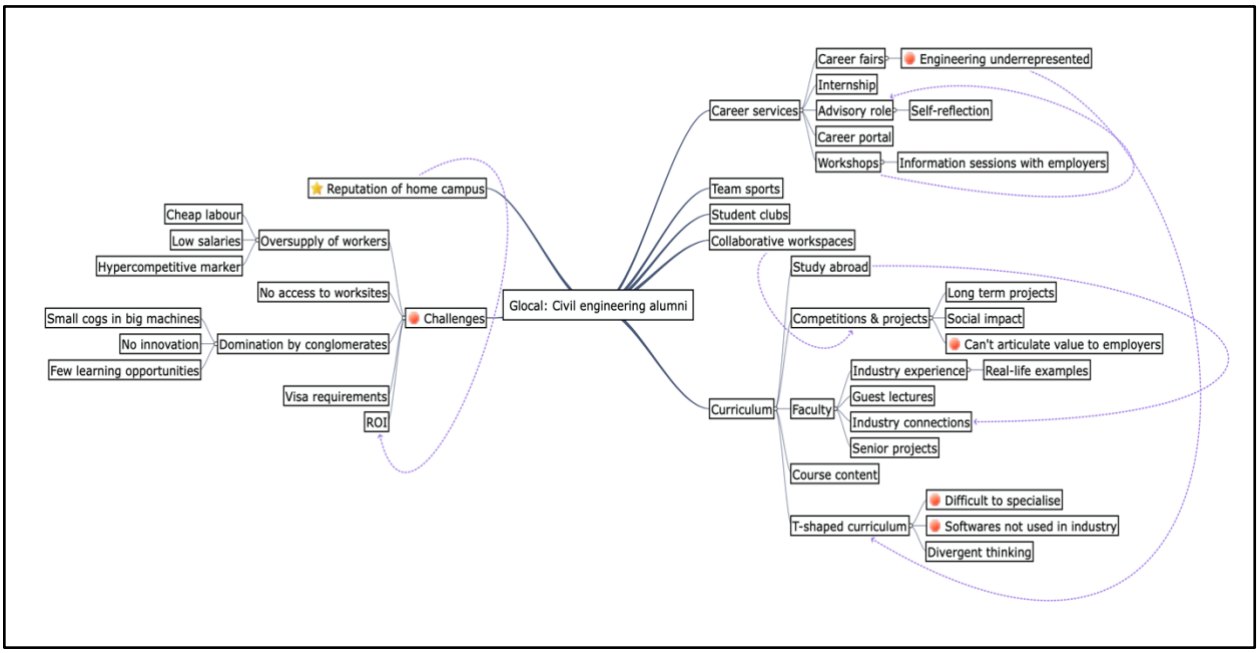

Diagram 5.4.3. Concept map for civil engineering alumni from *Glocal*

Yusaf summarised *Glocal*'s efforts towards graduate employability by describing what a visual model of it would look like:

> In the centre, you have employment, that is what I believe the career centre is trying to do . . . and then it [branches out to] certain workshops [and] events . . . where they try to work on your employability . . . so, in a way, they're trying to work on this holistic approach.

Yusaf and Beauvais thought that engineering companies were underrepresented at the career fair. This was a common view across the students and alumni I interviewed from *Homegrown* as well. However, in this case, instead of blaming *Glocal,* participants linked the dearth of opportunities at the career fair to the hiring landscape in the UAE's civil engineering sector. Yusaf emphasised that:

> One of the biggest struggles as an engineer in the UAE would be the [limited] opportunities for internships and [work] experience . . . there's such a massive diaspora coming in from South Asia, that is also trying to get the same job [for] half the money . . . that's a little difficult to make through, especially if you're a second year or third year engineering student competing with somebody who already has like a master's degree . . . I think that kind of stunts the growth for any university . . . you're competing with basically all of South Asia.

Labour market forces such as these, particularly combined with a low Return on Investment (ROI) put a strain on civil engineering students' efforts. For instance, the reputation of the host campus was perceived to be a positive influence on employability. However, Yusaf thought that international employers were not aware of *Glocal*'s location and of the UAE in general. Nevertheless, students typically selected the UAE to study civil engineering because of its appeal as a construction hub.

On a similar note, Beauvais said that:

> [You come in with] two pieces of luggage: one is positive, the other one is negative . . . people know you're very ambitious, you're probably good at what you're doing . . . but you're [also] a little bit more confident than other candidates [and] confidence without coverage in any situation is not good.

Yusaf also explained that research, development, and innovation did not feature heavily in the Middle Eastern job markets. He said:

> You're on the lower end of the totem pole . . . in any of the companies that you apply to . . . that means that your innovative ideas are more like ramblings and rants [to employers], than actual things that could be worked on.

This presents a disappointing reality of the civil engineering industry in the UAE, whereby the most employable graduates who present immense potential for employers to become world class leaders in research and technology, may not get the chance to operationalise their knowledge, skills, and competencies towards the benefit of the industry. When you combine these factors and the prestige associated with engineering degrees, particularly in South Asian cultures, with the fact that the UAE is the pioneering hub of construction, it makes sense that interested students would give priority to studying the discipline, and working, in the UAE. However, their efforts are marred by external forces, as we have seen in *Homegrown*'s case as well.

Nevertheless, these three participants lauded the formal curriculum for enhancing their employability. Kauss said that the liberal arts curriculum at *Glocal* resonated with their personal values. In that, it emphasised "[building] homes, not houses", explaining that houses entailed simple, structural elements whereas homes added social value. For me, as a researcher, this quote really brought the interdisciplinary nature of *Glocal*'s curriculum to life.

The participants in this group recalled the significant effect of their study and work abroad experiences on their employable identities. For example, during their time at *Glocal*, Kauss had travelled and worked on community projects in Thailand, India, and Sri Lanka, as well as on an engineering project in the UAE. He praised the physical resources on campus, specifically laboratories, studios, and co-working spaces, for allowing them to develop a network of like-minded, interdisciplinary researchers.

Beauvais referred to his study away experience as “the semester when [he] became an engineer”. He went on to add that he took the most “life changing course” at one of *Glocal*’s international study sites and, even though he struggled with the course, it had the most impact on his employable identity.

Likewise, Kauss thought that *Glocal*’s curriculum provided students with the mindset to solve “big issues”. Instead of prioritising finding desk jobs, the university was focused on helping students understand themselves and develop their graduate identities, with the idea that jobs and careers would follow. Beauvais did, however, mention that the liberal arts component was difficult to manage alongside the engineering courses he was required to take. He described this as a “love-hate relationship” saying that, “sometimes . . . [I] think that it's a very important piece of education . . . [other times] . . . I'm like, why am I not doing engineering courses?”

Yusaf explained the value of a liberal arts STEM degree for him, by saying that, “I want to know how the whole thing works, rather than just being a really, really small cog in a very, very big machine.” He also praised *Glocal*’s efforts towards providing students with the opportunity and resources to innovate. Citing a personal example, he explained that his final year group project involved analysing and developing building structures that allowed for faster evacuation in emergencies. He said that:

> We ended up . . . getting results with like a 10 to 15 second difference in a large room . . . which seems very little, but . . . in a life or death moment, that's all you

need . . . [those are] the kind of ideas that I like to work with, things that kind of push the boundaries.

These quotes reiterate the beliefs of Davis and Rahman from the career services' office at *Glocal.* Whereby, students are given the autonomy to select the experiences that are most meaningful to them in line with their own personal or professional aspirations. These interviews show that, as an institution, at least for participants in the civil engineering programme, *Glocal* placed more importance on self-directed identity development, with the notion that suitable jobs and careers would follow. In her interview, Davis had explicitly mentioned this as her office's strategy, while Rahman had emphasised the importance of preparing students for non-linear careers, which seemed to be strengthened through the cohesive learning, research, and extra-curricular experiences described above.

So far, this chapter presented the findings from stakeholders of the civil engineering programme at *Glocal,* in line with Davis and Rahman's confirmation that it was one of the lesser employable disciplines.

5.5. The computer engineering programme at *Glocal*

Now, this chapter will move on to a thematic analysis of findings from the interviews I conducted with stakeholders from the computer engineering programme at *Glocal*. This was confirmed to be one of the most employable degrees on offer. Both civil and computer engineering were situated within the same, broader engineering department at *Glocal*.

5.5.1. Programme leadership and faculty members of computer engineering at *Glocal*

I interviewed two participants in this group: the programme head, Atticus Stephen, and the associate dean of computer engineering, Burak Soydan. Both of them were also

involved in teaching. Therefore, they were not only involved in the high-level decision-making for computer engineering at *Glocal*, but also in the dissemination of employability offerings through their teaching and administrative work in the department. This allowed them to reflect on both, the vision of the programme as well as the operationalisation of employability initiatives therein. Most evident from *Diagram 5.5.1.* is the fact that the curriculum was the primary driver of employability according to both participants, with little emphasis on challenges and hindrances, other than the liberal arts dimension of the curriculum. These two interviews generated a visually simpler and more straightforward map than the one at *Homegrown* (see *Diagram 4.5.1.*).

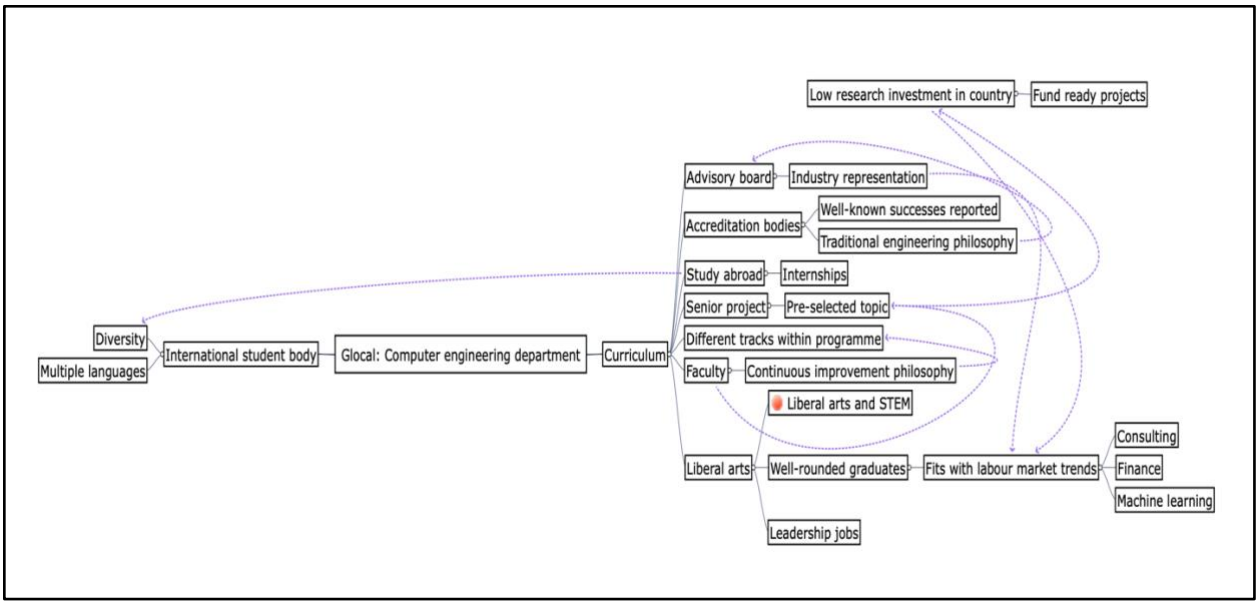

Diagram 5.5.1. Concept map for computer engineering programme leaders and faculty members at *Glocal*

Both participants believed that their strengths in terms of graduate employability came from the curriculum and the diverse student body. This exposed students to various languages, cultures, and norms which supplemented the curriculum's study away component. In terms of designing the course content, Stephen emphasised that the department first looked at industry trends and needs before designing curricula, so that students would be in a better position to be hired. Soydan added that they also considered the university and department's strengths in computer engineering, and

relied on the liberal arts dimension to “[create] well-rounded students [so that] the end result, naturally, is good employability”.

This raises the question of whether these needs were assessed through academic literature or primary research. Stephen and Soydan were critical of primary research on industry trends required by accreditation committees. They believed that accreditors favored well-known successes and operated with a traditional engineering philosophy, which was not embedded into *Glocal*’s vision. This was consistent with the views of Matthias, Hernandez, and Fattah from civil engineering at *Glocal*. According to Soydan, “the accreditors typically come from a traditional setting . . . they are hardcore engineers who are graduates of traditional engineering schools, with a tick-box approach towards the curriculum”. Therefore, Soydan preferred research and feedback from employers who were a part of the curriculum advisory board for computer engineering at *Glocal.*

Stephen considered a STEM degree in the liberal arts to be an “administrative challenge to define”. Like Matthieu at *Homegrown*’s computer engineering department, Stephen believed that:

> The liberal arts in the minds of some people, including myself . . . do not contain engineering, but it's mostly, I would say, humanities, social sciences, [and] arts. Math can also be considered part of the liberal arts.

Despite these beliefs, Stephen thought that students benefitted from being in contact with people from other disciplines, adding that, “[the students] are not what I call nerds . . . meaning you know the strict engineer that thinks one hundred per cent about his or her problem and nothing more.” Soydan, on the other hand, believed that the liberal arts curriculum was understood to develop mature graduate identities, preparing them for professions in leadership, and complementing labour market trends towards jobs in consulting, finance, and machine learning.

Explaining the conflict between the liberal arts and STEM education, he said:

> We are not creating students as technically equipped and deep as traditional engineering schools out there . . . I see that as an advantage when it comes to employability . . . [when] they go out there in the market . . . I don't see them as hardcore engineers that would just focus on their technical projects and [would be] in front of their computers all day long coding things . . . because of the well-roundedness of the education that we give them, I see them more in positions that interact with other human beings . . . in managing projects, rather than, you know, following somebody else's lead.

Overall, Stephen and Soydan's views demonstrate that despite some conflict of the liberal arts with STEM disciplines, both strongly favoured such a curriculum in shaping graduate identities.

Finally, as one of the primary challenges to computer engineering students' employability, Stephen believed that project-based learning was hampered by the UAE's low investment in research and the preference to fund ready projects rather than promising ideas. The latter model, according to him, is witnessed in developed economies such as the US and lends itself well to innovation, creativity, and risk-taking. Saleh had also alluded to this as a salient challenge for computer engineering graduates at *Homegrown*. This implied that *Glocal*'s students and graduates had an advantage over *Homegrown*'s, because of their international branch campus status, generous government funding, and campus resources. These factors allowed students at *Glocal* to avail resources and opportunities in different countries, particularly due to its global education model which ultimately prepared students to orientate towards various job markets.

5.5.2. Graduating computer engineering students at *Glocal*

I interviewed two graduating students from *Glocal*'s computer engineering department.

Like the relative class sizes, this focus group was also smaller than the one at *Homegrown*. Both participants, Lana Ibtisam and Akin Kwaku, were graduating within a month of our conversation. Ibtisam was planning on taking a gap year before deciding on her future plans, while Kwaku had a job offer in the UAE but was trying to negotiate the salary. He also had a backup plan in his home country, Ghana, where he was part of a "promising project" that provided telecommunication services to rural areas.

Diagram 5.5.2. shows that the conversation with Ibtisam and Kwaku generated more and diverse codes compared to the conversation with similar stakeholders at *Homegrown* (see *Diagram 4.5.2.*). In fact, this discussion was also centred towards the computer engineering landscape in the UAE labour market, unlike the conversation with computer engineering students at *Homegrown*, which related more to the general curriculum.

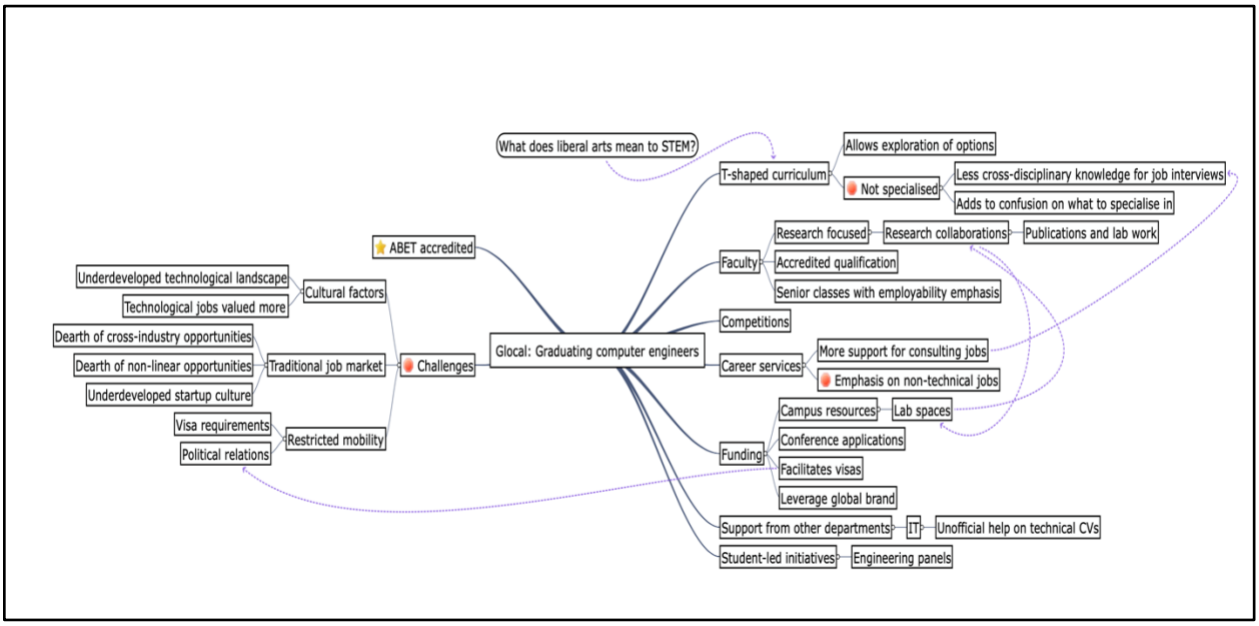

Diagram 5.5.2. Concept map for focus group with graduating computer engineering students at *Glocal*

Ibtisam said that she had visa restrictions due to her nationality and would have to stay in the UAE in the foreseeable future. However, this was challenging because the UAE did not have suitable job opportunities "[at] the intersection of technology and society or [in] data journalism", which was her area of expertise.

Elaborating on the technological landscape in the UAE, Ibtisam explained why graduates of computer science and engineering may have difficulties finding the jobs they aspired for:

> Google's branch in Dubai . . . are all . . . business jobs . . . they have like some key project management jobs, a lot of like sales, advertising . . . you expect that Google has software engineering jobs but in Dubai they don't . . . what I am trying to say is that there isn't really that sort of a culture . . . of creating hardware and software that is innovative . . . a lot of graduates end up in consulting [roles].

On the other hand, Kwaku was, in fact, looking for a role in consulting. When prompted to elaborate on the sources of his employability, Kwaku said that the career services' office was helpful in this regard, but added that they were unable to help for technical or niche roles. Both participants were cognisant of the fact that the career services' office was trying to improve their services for engineering students and graduates. Davis, the director of the career services' office, had also confirmed hiring a staff member specifically to assist students with technical roles. In the meantime, Kwaku mentioned that *Glocal* was a close-knit community, which made him comfortable asking a member of the IT department for advice on writing a technical CV.

Ibtisam claimed that, "the name of the degree is employable". Recalling her own experience of applying for consulting jobs, she said that she had "zero business background but [would] almost always get through . . . the first screening round of . . . CVs." Getting through the interview stage would then depend on a candidate's technical and interpersonal skills. Kwaku, on the other hand, was of the belief that "this university is new [which allows it] agency for change". Therefore, despite the challenges in the labour market and job structures of the UAE, the institution's flexibility would make it easier for them to adapt to labour market needs, relative to older institutions that may have rigid or more bureaucratic structures and policies. This is debatable since goodwill with employers can be established over the long run, so older institutions may be more

familiar with trends, opportunities, and threats in the local labour market. Moreso, older universities may have more *wasta* with employers than newer ones.

While Kwaku lauded the liberal arts focus of his degree, Ibtisam was critical. She said it "compromises on the technical parts of [the] degree . . . and we need more voices in STEM to talk about what the liberal arts means to [our] degrees." Reflecting on his own experience, Kwaku added that, had it not been for a liberal arts curriculum, he would not have had an opportunity to extensively work with professors in the biology department. This suggests the need for more explicit communication on how a liberal arts education can complement degrees in STEM, so that students can understand and visualise their degrees and career paths better. This would first require the programme leadership to be aligned on their stance. However, Stephen, the programme head of computer engineering at *Glocal*, was also unsure of the impact of the liberal arts on computer engineering (see section *5.5.1. Programme leadership and faculty members of computer engineering at Glocal*).

Both students praised faculty members for their research orientation, as it allowed them to form collaborations and work on relevant projects and publications. The generous funding was credited for providing students with the ability to participate in international trips and competitions, and allowing students to "make mistakes". Kwaku believed that this was a "privilege" that allowed him to learn in an environment where the stakes were lower.

Overall, Ibtisam and Kwaku thought that the focus of *Glocal* was on opportunity, rather than employability. In that, they believed that an explicit focus on employability was unnecessary because the institution provided a diverse array of employment- and employability-related offerings for students to pick and mix in line with their needs, preferences, and aspirations.

This focus group truly highlighted the non-linearity of employment and employability that students at *Glocal* face: applying the liberal arts philosophy to the computer engineering

curriculum; having access to interdisciplinary research opportunities of their own preference; but not being able to operationalise their learnings in the workplace due to structural forces unique to the UAE's labour market while global markets worked towards non-linearity.

5.5.3. Computer engineering alumni from *Glocal*

I interviewed three participants in this group: Kamel Sultan, Aisha Al Qubaisi, and Hala Samara.

Diagram 5.5.3. presents a summary of the collective views of all three alumni from this group. This map is similar to *Diagram 4.5.3.*, which was generated from the interviews with computer engineering alumni from *Homegrown*.

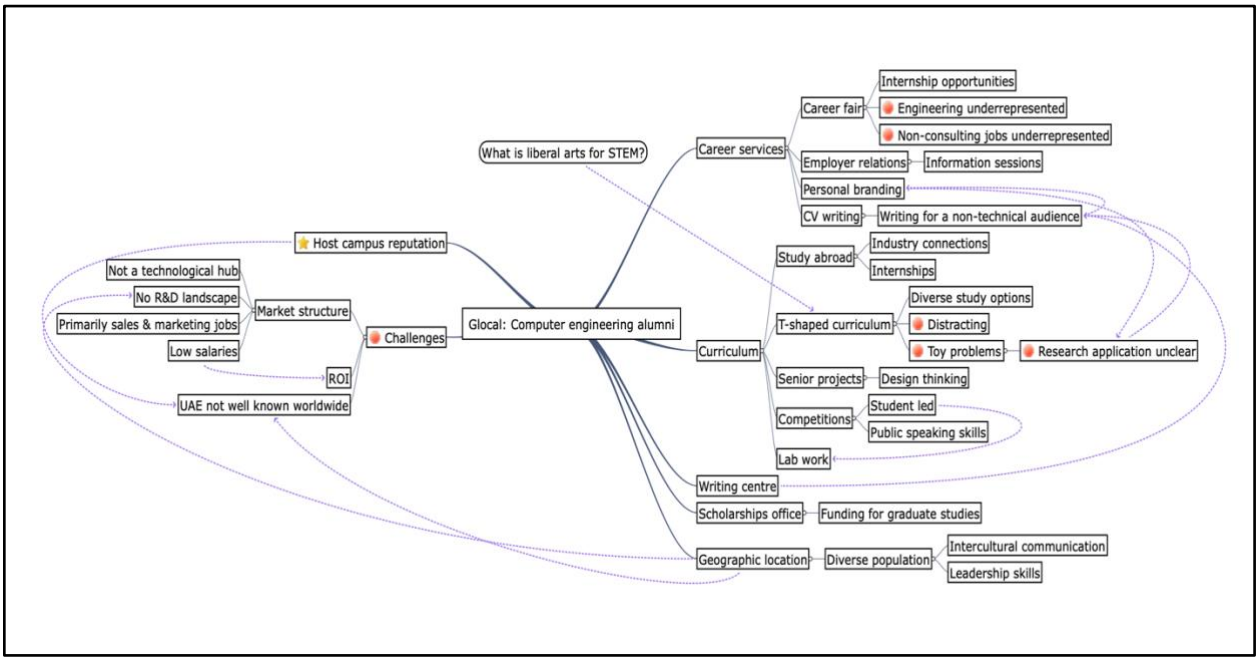

Diagram 5.5.3. Concept map for computer engineering alumni from *Glocal*

Sultan graduated in 2018 and was pursuing a master's degree in computer science in Canada, while Al Qubaisi graduated in 2019 and was pursuing a master's in technology policy in UK. As an *Emirati*, she did not consider working anywhere else except the UAE

but turned down a job offer to pursue her masters at the University of Cambridge. Samara graduated in 2016 and won a prestigious scholarship to pursue doctoral studies in the UK. After completing her doctoral degree at the University of Oxford, she moved back to the UAE to teach at *Glocal*.

These alumni expressed a more active role played by the career services' office compared to those at *Homegrown,* who portrayed a passive image of the office at their institution. Al Qubaisi praised the career services' office at *Glocal* for teaching students how to 'market' themselves, especially in context of explaining their achievements to a non-technical audience. Davis, the director of the career services' office, had mentioned this as a prime focus of their office's operations. On the other hand, Samara credited the writing centre for enhancing her ability to communicate in an academic or work, technical or non-technical, context.

Sultan did not think that computer engineering companies were well-represented at the university-wide career fairs. He believed that civil and mechanical engineers got better networking opportunities with prospective employers, even though current civil engineering students did not think that was the case. However, when arguing for the dearth of technical careers in the UAE, Sultan mentioned that opportunities for consulting jobs were plentiful. Ibtisam and Kwaku, current computer engineering students had mentioned the same trend in their focus group.

Like Ibtisam, Sultan explained that:

> There aren't too many software engineering jobs in the UAE . . . A lot of the engineering hubs are in the US or in London . . . even though there are big tech [companies present] in the UAE, they're mostly dedicated to sales or marketing, rather than actual engineering work.

Samara had a similar view and said that:

> We don't have IBM research or Google research . . . we don't have the big research companies . . . [the MNCs here are] mainly for like sales or digital transformation, for example, but they don't [actually] do research or product development.

Reflecting on specific experiences that helped to craft their graduate identities, Sultan cited the value of a liberal arts education as well as the global education model followed at *Glocal*. In particular, he said that:

> You're expected to know a little bit about everything . . . you're always expected to think on your feet and adapt to different situations . . . the nice thing about the university is that the resources are there. You're expected to use them if you want to, but no one's forcing you to do anything if you don't want to, right? . . . in my sophomore year, for instance, me and four other students . . . two computer, one electrical and one mechanical [engineering student] . . . we got together and we started a project to build like a drone and we submitted it to a competition . . . it was all funded by the engineering department . . . that opened up a lot of avenues for me to explore internship opportunities . . . so the university puts you in a position to succeed if you take it, but it's not actively, like pushing anything onto the students.

Al Qubaisi also agreed that making use of the resources and opportunities available and deciding how best to align them with future goals and aspirations, was completely dependent on individual students. This resonates with Kwaku's views, that *Glocal* is more about making use of opportunities rather than actively developing employability.

Sultan also did a research internship at the host campus and recalled it as a positive experience in terms of developing interpersonal skills. Similarly, Samara recalled a class trip to Singapore, where she learned how microchips are made, as a particularly

useful and enlightening experience. She also believed that the academic department was always willing to fund research opportunities and conferences that students wanted to attend or host on campus, drastically improving their networking abilities.

In general, all three alumni praised the curriculum for fostering design thinking through senior projects; developing public speaking and leadership skills; allowing the use of world-class facilities; providing generous funding; and, helping them develop local and international industry connections.

In terms of the liberal arts philosophy of the STEM degree she was pursuing, Al Qubaisi was of the view that it had both pros and cons, regardless of pursuing further education or searching for a job. She said that:

> It's a bit harder to get into . . . a technical degree or a technical job . . . the entire first year is just sort of [a] recap . . . we don't even study anything related to engineering . . . I interviewed with a couple of . . . labs . . . and you can tell that . . . there's something missing . . . as someone who's majoring in something very technical, it was a bit distracting.

However, she went on to add that:

> I'm an engineer, but I'm sitting next to visual artists . . . taking that outside . . . in an interview . . . you're able to gauge how each person is supposed to be communicated to. So . . . the liberal arts system, I think, facilitates a lot of these conversations outside the university.

Samara's experience demonstrated a similar value of the liberal arts for STEM disciplines. While she never interned as an undergraduate, she believed that the "diversity in the curriculum . . . prepares engineers in a different way to a traditional engineering curriculum", whereby she took classes in economics, arts, literature, and theatre, illustrating the interdisciplinarity of a liberal arts education.

Samara's main critique of the curriculum, however, was that she was taught coding through "toy problems" as opposed to "real-world research problems". Faculty members would incorporate their research into classes to show students their real-life applications. However, the assignments were not designed to simulate real-world conditions. This posed as a problem for Samara since she went straight from an undergraduate degree in computer engineering to a doctoral degree in artificial intelligence, not "fully prepared" for it.

Despite this drawback, these interviews showed how *Glocal* provided a diverse assortment of opportunities for students to utilise, depending on the path they wanted to chart for themselves, whether it was in research, academia, or industry. The liberal arts aspect of the curriculum possibly eased the implementation of such strategies, since they were not deployed as a policy or curricular requirement to be fulfilled, but rather as a voluntary and fulfilling experience.

5.6. Concluding thoughts on the findings from *Glocal*

This chapter described the views of participants across the international education and career services' offices, as well as the civil and computer engineering programmes at *Glocal*. At *Glocal*, the focus seemed to be on developing holistic identities for graduates through cohesive, cross-departmental efforts. This emerged to be different and wider in scope compared to the way *Homegrown* conceptualised, embedded, and instilled employability into the curriculum and student experience. A large part of all the conversations centred around the fit between a STEM degree and an inclusive liberal arts philosophy. It seemed that the holistic identity from the liberal arts and the international nature of the experiences at *Glocal* was aiming for a different type of employable person, compared to that at *Homegrown*. Perhaps this was driven by the international influence on the local leadership, processes, and mindsets, given the longstanding global presence of the university.

Primarily, the challenges in finding employment and continuing to develop employable identities came from structural forces in the labour market, unique to both civil and computer engineering sectors. The interviews and focus groups reiterated the views of stakeholders at *Homegrown*, that the market structure in the UAE is not favourable for fresh graduates, at least in these two disciplines. This emerged to be true due to factors such as hypercompetition and low supply of relevant jobs; unfair employer demands such as previous work experience for entry-level jobs; low return on investment in higher education; hiring based on *wasta* and traditional methods, rather than on merit; hiring preferences for *Emiratis*; and, a lack of technical career opportunities, particularly for computer engineering graduates. Additionally, making use of the resources and opportunities available and deciding how best to align them with future goals and aspirations, was completely dependent on individual students.

Furthermore, job search efforts were hampered by mobility restrictions due to the structure of visas and restrictions faced by certain nationalities. Having spent the largest portion of their degrees studying in the UAE, the familiarity of the region made the country a viable and attractive options for students to work in. However, their passports, visas, connections, and the local job market structures seemed to impact employability more than the identities they had developed. This forced some students to chase jobs on a global scale due to the non-optimal conditions of the local labour markets. Therefore, the geographic location of the degree matters, to some extent, despite *Glocal*'s curricular structure with an embedded study abroad component.

Based on this data, the civil engineering landscape in the UAE does not emerge to be conducive to hiring or professionally developing recent graduates. For computer engineering students and graduates, the UAE has not yet developed into a primary technological hub, and the research and development landscape seems to be in its infancy.

The next chapter will synthesise and present the findings from this chapter, along with the findings from *Chapter 4: Findings: Homegrown*, in context of employability literature.

Chapter 6. Analysis and discussion of findings

The previous two chapters discussed the findings of this study in relation to participants' views of employability, at an individual and group level. *Chapter 4. Findings: Homegrown* and *Chapter 5: Findings: Glocal* allowed a within and across, vertical and horizontal, comparison of group perceptions and lived experiences of employability. The concept maps provided a visual snapshot of these aspects and the consequent thematic analyses provided descriptive details of the same. Therefore, the previous two chapters were indispensable in generating the overarching themes that are presented below.

This chapter will discuss three key themes that emerged from the data. It will relate these themes to employability literature and to insights from regional and global seminars. This will help in reflecting on contemporary trends for employability in the global workforce, particularly from a liberal arts standpoint. In doing so, this chapter will speak to how the two institutions embedded employability through models found in the literature and answer the key research questions in this study, as summarised in *Table 6. Key themes emerging from the data*. Section *7.1. Reflecting on the research questions* will address the final research question, 'how successful are these two institutions in developing graduate identities vis-à-vis the strengths, opportunities, and threats they face?', while summarising how each of the research questions was addressed through the findings.

Key findings	**Description**
6.1. Employability worldview	This section answers the research question, 'w*hat are the perceptions and experiences of various higher education stakeholders in relation to the employability of graduates?'.* In doing so, it discusses the discrepancies in the perceptions of employability held by both institutions as evidenced through their mission, vision, strategies, and programming.

	Homegrown's approach lacked depth, and was based on skill development and PR. In that, the primary focus of employability-related offerings, when applicable, was on graduate employment. On the other hand, *Glocal'*s conception of employability was more complex and focused on holistic, individually constructed graduate identities through the provision of vast opportunities that students could select from.
6.2. STEM education in the liberal arts	This section answers the research question, 'w*hat is the meaning and value of a liberal arts undergraduate education for employability?'.* In doing so, it explores how each institution implemented the liberal arts model into their curriculum, how this was perceived by various stakeholders, and what this means for careers in engineering, traditionally a scientific discipline. While the liberal arts dimension was seen to restrict the option to specialise at the undergraduate level, it was praised for creating well-rounded graduate identities. The impact of each institution's employability worldview, as described in section *6.1. Employability worldview*, made this feature more salient at *Glocal* when compared to *Homegrown*.
6.3. Structural factors in the labour market	This section answers the research question, 'w*hat challenges and opportunities do stakeholders face in shaping graduate identities?'*. In doing so, it argues that despite significant cultural and funding differences between the two institutions, the unique conditions surrounding the civil and computer engineering labour markets in the UAE, such as mobility restrictions, economic landscapes, and underdeveloped hiring models led to the disciplinary differences in graduates' employability opportunities.

Table 6. Key themes emerging from the data

6.1. Employability worldview

The first prominent finding related to the differences in how employability was conceived and therefore, operationalised, at each institution. This impacted both, the internal programming by career services' offices and academic departments, as well as institutional interactions with employers. This trend potentially impacted labour market outcomes for civil and computer engineering graduates at each institution.

Upon reviewing the interview transcripts, concept maps, and analyses for each participant group, it emerged that *Homegrown* had a traditional and conservative notion of employability, bound in employment. To the contrary, *Glocal*'s operations were tailored to suit a modern, vibrant, and adaptable curriculum that pushed graduates to solve challenges rather than pursue jobs. The respective concept maps generated from each institution suggested this as well. *Homegrown*'s concept maps were fairly straightforward whereas *Glocal*'s concept maps were visually sophisticated, indicating layered relationship networks and meaningful connections (Jankowska, 2014). This suggests that *Glocal*'s graduates were more suited to non-linear and leadership-oriented careers, and were better situated to pursue careers in a range of sectors and geographic areas.

In particular, *Homegrown*'s conception of employability resembled Hinchcliffe and Jolly's (2011) four-stranded model of GI, while *Glocal*'s vision for its graduates resembled that of Tomlinson's (2017) model of graduate capital (illustrated in *Figure 1. Model of graduate capital* (Tomlinson, 2017, p. 340), and explained in section *2.2.3. Models of employability: Skill development versus identity formation*).

To recap, Hinchcliffe and Jolly's (2011) conception of graduate identity encompassed the following: *values*, including organisational, contextual, and ethical values; *intellect*, including critical thinking, analysis, and communication abilities; *performance*, such as the application of skills and knowledge in the workplace; and *engagement*, or a willingness to meet personal, employment-related, or social challenges. This model

does not require every employment requirement to be translated into an employability outcome, or even for every skill to be operationalised. It also allows moving away from a performance-based focus to a practice-based one, where the choice and responsibility of shaping the identity lies with the graduate but ultimately moves to the employer to perceive and judge. Evidence of this model can be seen across the narratives and concept maps generated from *Homegrown*'s participants.

Based on the interview findings, the *values* strand was observed through the American-style focus on the liberal arts, with an embedded general education framework across degrees in order to broaden students' learning horizons; the *intellect* component was enhanced through the curriculum, with a focus on technical education while learning about other disciplines, embedding communication courses specific to STEM disciplines, through the diverse student body, and through the availability of international education experiences; the *performance* aspect was strengthened by the mandatory internship component in the engineering programmes, along with the career fairs and workshops offered by the career services' office; and, the *engagement* aspect was enhanced through project-based learning and competitions, a focus on sustainability in engineering through the taught curriculum, and training students to work under pressure.

Tomlinson's (2017) model of graduate capital went further than the model proposed by Hinchcliffe and Jolly (2011), in the same way that *Glocal*'s conception of, and efforts towards, employability went further than those of *Homegrown*'s. This was true for both, the conception and the operationalisation of employability-related efforts. To recap, Tomlinson's (2017) model requires cooperation between academics, career centres, members of the leadership, as well as ongoing research in order to build cohesive graduate capital. Critical of higher education institutions' ability to develop graduate employability in isolation, Tomlinson's (2017) model includes taking account of knowledge, skills, performance, human relationships, and cultural synergy, and is termed *human capital*. Along with these are aspects *of identity capital* and *psychological capital*, such as the resilience to adapt to non-linear, generalist careers, or protean

careers, layered onto conditions of the labour market (Bridgstock, 2011; Clarke, 2017; Francis, 2015; Humburg, van der Velden, and Verhagen, 2013; Maree, 2017; O'Leary, 2016). At the same time, all these aspects of identity development are interconnected. This practical yet dynamic emphasis on developing a well-rounded graduate as the measure of employability, makes it particularly relevant to *Glocal*'s employability worldview.

Glocal was seen to place particular emphasis on building *human, psychological,* and *social capital* through the taught or formal curriculum and *cultural*, *social*, and *identity capital* through the informal curriculum and university experience. *Psychological capital* and *human capital* were seen to develop primarily through the taught curriculum. Students developed resilience, perseverance, and adaptability through rigorous academic and research training, with varied options for interdisciplinary study and collaborations as well as co-working spaces on campus. *Psychological capital* was also enhanced through a reliance on students to self-select into the myriad of employability-related initiatives available across the formal and informal curriculum. Embedding international study opportunities into the curriculum enhanced students' networking capabilities, thus increasing their *social capital*. Social *capital* was also a particular emphasis of the career services' office and the international education office, with both offices working to provide equal opportunities to students from all ethnic and financial backgrounds, enhancing their personal and professional networks, and enabling them to break economic barriers. The career services' office was also observed to particularly polish students' *identity capital*, helping them translate their qualifications and achievements to a non-technical audience and tell a story about their accomplishments in a way that would resonate with employers and graduate schools. Students' *cultural capital* was enhanced through awareness of, and integration with, the local environment as well as international locations. This included attending local class trips and study away programming, being exposed to a diverse student body, and participating in, local and international, internships and research collaborations. In particular, the engineering practicum geared towards assisting developing economies especially enhanced both *cultural* and *human capital.* In comparison, *Homegrown*'s approach towards

employability was centred primarily on *human* and *psychological* capital, without cohesively elevating employability portfolios of their graduates with regard to the other forms of graduate capital described in Tomlinson's (2017) model.

Apart from these direct comparisons between the findings at each institution and employability models in the literature, the interviews also highlighted how cross-departmental work, that could potentially ensure the fulfillment of *Homegrown*'s mission and vision, were disconnected. On the other hand, interdepartmental work at *Glocal* was easier to accomplish, ensuring a more streamlined effort towards enhancing graduate employability, albeit implicitly. For instance, at *Homegrown* participants mentioned the difficulties in working with the career services' office and cited a lack of resources and ineffective communication related to employability development initiatives. To further compound this element of disconnection, the international education office at *Homegrown* operated almost in isolation of other departments, including the career services' office. However, at *Glocal*, an integral part of the career services' office was to align their efforts with the needs of the programme leadership, while the operations of the international education office were central to achieving the goals of the formal curriculum.

It is also interesting to understand these discrepancies in both institutions' employability worldviews, as demonstrated through their beliefs about WIL. *Homegrown*, with its traditional view, had a compulsory internship component built into the curriculum. This forced students to gain work experience while studying, or risk delaying their graduation. On the other hand, *Glocal*, with its modern view, did not have a compulsory internship module built into the curriculum. This was an intentional decision, backed by the rationale that students should be given the freedom to select the type and duration of work experience that would add the most value to their education, embedded in an authentic view of a liberal arts education (for an overview of the role career centres can play in shaping graduate employability, see section *2.4.1. University career centres: An emerging opportunity*). Furthermore, the career services' offices at both institutions followed different approaches whereby *Homegrown*'s career centre was "hands off",

leaving students to make their own employment decisions for the most part, and their university experience consisted primarily of activities related to academic learning. *Glocal*'s career services' office provided a non-credit bearing "portfolio of opportunities" for students to utilise, supplementary to their learning, research, and study away experiences (Farenga and Quinlan, 2016). Despite the voluntary option of work experience at *Glocal* compared to *Homegrown*'s mandatory internship, *Glocal's* students seemed to have accumulated more extensive work and research experience, given the abundance of resources and opportunities available to them.

In fact, differences in the conception of employability at each institution were primarily noticeable in the interview responses of the career services' staff. The career services' office at *Homegrown* primarily reflected on the activities they organised for students that are traditionally associated with employment: advising for résumé and cover letter writing, a career fair open to all students, and links to employers who are hiring students for internships or full-time employment within the same industry. Furthermore, at least one participant at the programme leadership level at *Homegrown*, Saleh, perceived employment services such as providing students with a list of potential employers to send their résumés to and giving them access to a departmental career portal as a "luxury", indicating that it was not the responsibility of the academic department to supplement this area of student development (see section *4.5.1. Programme leadership and faculty members of computer engineering at Homegrown*). Various participant groups at *Homegrown* alluded to the existence of an agreement between the university or academic department and certain employers to fill "quotas", or a certain number of vacancies, with *Homegrown*'s graduates. It is unclear whether this was an explicit or implicit agreement, but participants across stakeholder groups were aware of it and highlighted it as a traditional means of employment creation, with little focus on student merit or potential. In addition, larger employers were represented more and better at the university-wide and departmental career fairs, particularly for the civil engineering job market. However, according to Bishop and Hordern (2017), this may be because the larger employers have more time and resources to devote to developing relationships with universities.

The participants from *Glocal*, on the other hand, spoke at length about graduate identity being the driving force behind their curricular and extra-curricular strategies. Their approach was to develop a notion of the individual and collective identity they wanted to create for graduates and align that with programme outcomes, labour market trends and most importantly, students' own passions and interests. The initiatives they organised for employment were, in theory, the same as those at *Homegrown:* one-on-one advising, employer workshops, career fairs, internships, and employment support. However, they staffed employees that worked specifically with each discipline the university offered degrees in, keeping their unique challenges and opportunities in mind. The advising itself was focused on allowing students to understand and chart their own career paths, and a view of developing their identities as citizens of the world with a responsibility to shape the future of local and international societies. The office's efforts were evaluated against these aspects in order to create a feedback loop that ensured continuous improvement. In fact, Davis mentioned that their one-on-one career advising followed specific career development frameworks, something that did not come up at all in the interview with *Homegrown*'s career services' office. The events featuring employers were geared towards providing students with networking opportunities, rather than creating employment awareness, as seemed to be the case at *Homegrown*.

Finally, another example that highlighted the differences in the way employability was conceptualised and operationalised at both institutions, was their approach towards international education. Although not linked directly to the liberal arts model, both institutions placed an emphasis on global outreach and education.

For instance, *Glocal* had a program specifically designed for engineering students to travel abroad, live in communities with poor infrastructure, and develop systems for them that put engineering knowledge and skills into practice. The study abroad model was embedded into the curriculum, as a mandatory part of it, and was funded by the institution. It was essential for students to spend one to two semesters at an international host site, to complete their degree requirements. The participant in the international education office stressed the ability of such experiences to develop

graduates' abilities to navigate cultures, contexts, and personalities effectively, which is an essential characteristic of an ever-changing world of work. At *Homegrown*, the international education model was available to students if they wished to avail its benefits and was self-funded to a large extent, with a few subsidies available to students. However, due to COVID-related budget cuts and travel restrictions, *Homegrown* had downsized this department shortly after my interview with Hansen took place. To the contrary, *Glocal*'s international education office repurposed their resources towards developing virtual and hybrid experiences for students, modelled around interculturality, constantly keeping track of changing travel restrictions.

From these instances, it seems that the experiences traditionally associated with employability, such as WIL, were mandatory at *Homegrown*, but students had the choice to avail optional experiences if funding permitted, such as international education opportunities. To the contrary, *Glocal* followed the reverse. In that, WIL was optional but international education was mandatory and fully funded. This allowed students the freedom of choice to develop their own identities as they pleased, removed unequal access to opportunities due to barriers posed by social class, and ensured compatibility with non-linear careers in knowledge economies (for an overview of how the responsibility for graduate employability tends to be shared by stakeholders, see section *2.4. Whose line is it anyway?*).

These operational differences brought out the disparities in the worldviews held by each institution with regard to fostering employability in students and graduates. Therefore, in reviewing the findings of the current study, *Homegrown* was more conservative in their outlook towards employability, following what seemed like a surface level, tick-box approach featuring skill development in students and graduates, complemented by PR efforts targeted towards influential employers within the county. To the contrary, *Glocal* had a more complex view of employability, focused on developing a holistic identity for its graduates, through interdepartmental efforts, allowing students the option to create research-, academia-, or industry-based identities for themselves. However, both

institutions seemed to follow identity-based models of employability, as opposed to simply skills-based ones.

Daniels and Brooker (2014) and Jackson (2016a) argued that skills-based approaches are narrow and typically conceive attributes and identity development as two separate functions of employability. This is especially so because the skills focus lends itself to a tick-box approach, checking off those acquired against a pre-populated list of important ones. It also overemphasises compliance, instead of treating students as intellectual learners (Harvey, 2000; Harvey and Kamvounias, 2008; Tariq et al., 2004).

Such approaches neither sufficiently account for the identity of the graduate or job seeker, nor provide employers the opportunity to develop a holistic picture of the value they bring into the workplace. They could also hinder the ability of policymakers to truly understand the conditions that may be fostering or obstructing employability, and lead them to develop policies that may not tackle the underlying economic and societal concerns. A gestalt approach, focusing on enhancing the depth and breadth of relevant concepts may be preferable (KU University Career Center, 2014). Therefore, some researchers suggest that the focus of student development should be on developing a pre-professional, or graduate, identity instead (Dahlgren et al., 2008; Jackson, 2016b; Paterson, 2017; Tomlinson, 2012; Tomlinson, 2017).

So far, this chapter described the differences evident in *Homegrown* and *Glocal*'s conceptions of, and actions towards, employability. Now, this chapter will explain the second prominent theme that surfaced from this study: the value of a liberal arts education, wherein the STEM degrees in question are embedded, particularly as it relates to a knowledge economy.

6.2. STEM education in the liberal arts

To recap, students and alumni in this study were undertaking, or had completed, either civil or computer engineering degrees, that were housed in an overarching liberal arts

philosophy. Typically, technical subjects like science and engineering are associated with being vocational in nature, while the liberal arts, as the name suggests, argue for an open, interdisciplinary model of teaching and learning, commonly associated with the humanities, social sciences, and arts. Traditionally, a liberal arts education is associated with lower employment rates. On the other hand, the notion of employability is now associated with concepts such as marketing oneself, job security, and career progress (Nicholas, 2018). It might be easier to develop these competencies in a liberal arts philosophy, particularly in context of creating an employability narrative for individual graduates, entrenched in interdisciplinary efforts. In other words, whether the universities in question leaned towards offering a “higher technical” or a “technical higher” education, would affect their curricular structures (Bishop and Hordern, 2017, p.3). Therefore, the question of what a liberal arts education or the T-shaped model meant for a STEM degree emerged as the second prominent theme from the data gathered in this study.

In summary, at an institutional level, *Homegrown*’s approach towards the liberal arts lacked depth in *purpose* and *content*, consequently narrowing the liberal arts *context* for students. On the other hand, *Glocal* provided its students with a meaningful education, where the *purpose* and rationale of following a liberal arts model was clearly identified, real-world issues were specifically incorporated into the liberal subjects of study in order to make the *content* of study relevant to the twenty-first century, and the environment or *context* of the institution allowed for both deep and interdisciplinary study of chosen subjects in the arts and sciences (Detweiler, 2021).

Reflections on the liberal arts dimension of the curriculum and university experience, offered by the participants at *Homegrown*, lacked complexity. In that, the reflections centred around the general education courses that students were expected to take outside their specialisations, as a mandatory component for graduating. The participants at *Glocal*, however, critically analysed this aspect of the curriculum. Stephen, the programme head of computer engineering at *Glocal*, admitted to bringing up this debate with the university leadership. According to him, computer engineering

degrees were not traditionally included in liberal arts disciplines, especially in British and European educational systems. To the contrary, the civil engineering faculty members praised the liberal arts philosophy at *Glocal*, in light of the changing nature of jobs with technology permeating traditional civil engineering roles. In that, jobs that were managed by humans are becoming more software oriented, making it necessary for civil engineers to be fluent with programming and software development. The liberal arts allow students to cross-specialise, particularly in this case, where civil engineering was housed in the same department as computer engineering. Overall, the programme leaders of civil and computer engineering at *Glocal* agreed that, under a liberal education system, students were able to develop well-rounded identities that prepared them for leadership careers, while complementing labour market trends towards jobs in consulting, finance, and artificial intelligence.

Participants at *Glocal* also agreed that having a liberal arts education allowed students to challenge traditional notions and critically examine the consequences of their actions when engaging with society. Furthermore, participants from the career services' office were well aware of the nuances of a T-shaped curriculum, and streamlined their student services in accordance with the curricular structure. Their focus was on researching, training, and advising students on non-linear careers and interdisciplinary postgraduate studies. In doing so, the office kept abreast of changing labour market structures, both locally and internationally, while keeping students' interests and passions at heart.

Programme leaders and faculty members at both institutions spoke extensively about the value of project-based learning in teaching students the ability to apply knowledge to complex, real-life scenarios. However, only *Glocal*'s expansive resources made it possible for students to collaborate on interdisciplinary academic, research, and professional projects. Students at *Homegrown* were limited to primarily participating in academic, intra-university, curriculum-based projects.

Next, this theme featured significantly in focus groups with graduating students at *Homegrown* and *Glocal*. In the case of civil engineering, students and alumni at both

institutions complained that they either had to work on projects that were much smaller in scale compared to real-world situations, or only got to see a project through one stage of its life cycle. In the case of computer engineering students and alumni at both institutions, students complained of outdated software training and “toy” problems that did not resemble real-life scenarios. Although there was some confusion over the value of a T-shaped curriculum for computer engineers where it was seen to hinder their ability to specialise in their undergraduate studies, it still provided opportunities to explore interdisciplinary options that students wanted to pursue at the postgraduate level or in their professional careers. Computer engineering alumni from *Glocal* echoed the same thoughts, whereby they appreciated the variety in subjects available for interdisciplinary study but struggled to identify how they would have specialised in subdisciplines, had they wished to do so. On the other hand, faculty members seemed to think that undergraduate education was not primarily meant for specialisations anymore and that the oversupply in the labour market could be permeated if graduates pursued a specialisation through postgraduate education, before embarking on an industry-based career.

So far, this section highlighted the views of participants in the current study in relation to their perception of STEM degrees embedded in a liberal arts’ curriculum. Now, it will turn to the literature for insight on this theme.

Lin, Sweet, and Anisef’s (2003) comparison of vocational and liberal education suggested poorer work outcomes for liberal arts graduates. These could be attributable to the fact that vocational programmes are designed keeping specific labour market requirements and specialised skills in mind. However, the researchers attributed these findings to missing authentic signals between universities and employers, in relation to the competencies that graduates bring to the workplace. Likewise, Steur, Jansen, and Hofman (2012) cautioned that the notion of graduateness, or building employability through the curriculum, risks decreasing the original benefits of a university education, such as cultivating scholarly minds (for a detailed discussion on the purpose of higher education, see section *2.1. The evolving purpose of higher education*). In the case of

the current study, however, the T-shaped curriculum was seen as the bridge between the technical aspects of a scientific discipline and graduateness through reflective thinking in the form of scholarly interests, social responsibilities, and an emphasis on lifelong, collaborative learning. This was especially true for *Glocal*'s participants.

Gleason (2018) gave an example from Singapore's economy, which has been known to foster high achieving STEM graduates. In keeping with the needs of the Fourth Industrial Revolution (4IR), Gleason argued that some researchers have suggested a liberal arts education as the ideal solution to developing future-ready graduates who are equipped with focusing on *how* to learn instead of *what* to learn. After learning from its liberal arts' experiment in Singapore, the National University of Singapore has announced that it will terminate their partnership with Yale University, to form a larger liberal arts college of their own (Salovey, 2021). Although contested, this decision does highlight the growing emphasis on the liberal arts, even in autocratic environments with strict censorship laws, a similarity shared between Singapore and the UAE. Within the UAE, the liberal arts seem to be catching on as well, with a prominent federal university announcing the launch of a partnership with Minerva, a US-based educator with a focus on global, purposeful, and interdisciplinary, liberal arts-style learning. This partnership promotes the interdisciplinarity of learning in artificial intelligence, innovation, and business transformation (Rizvi, 2021).

Westermann (2021) suggested that the word 'arts' in the liberal arts, is translated from the Latin word 'artes', which means skill. By this definition, she implied that the liberal arts hone intellectual, mathematical, artistic, and social skills grounded in deep study and practice. Wiewel (2021) agreed with this, adding that these are the skills that enhance employability, allow graduates to contribute to the "global good", and are proven ways to navigate the world. Therefore, he believed that the liberal arts teach skills that employers require graduates to possess, including oral and written communication skills, analytical reasoning, critical thinking and analysis, solving complex problems, quantitative literacy, working with diverse groups, ethical decision-

making, creativity, and innovation, while also allowing them to question truths, open up to new ways of knowing, and thinking with empathy.

In fact, the employability literature has suggested that technology will replace several entry-level jobs in the 4IR (Loten, 2020; Muro, 2019; Weber and Cutter, 2019; Weber and Korn, 2014). Regardless of the discipline of study or industry of work, Muati (2021) asserted that while the future may be uncertain, we do know that technology will play an active and significant role in the workplace. For instance, during the pandemic, the open online course provider, Coursera's enrollments doubled in Egypt as this trend became apparent. Students realised that the nature of jobs was changing rapidly, but did not feel prepared to take them on (Farah, 2021). Therefore, enrolling in short online courses, specifically aligned to industry needs, was one way to enhance vocational skills, especially since Coursera's courses have a strong link to employment requirements.

While some contest whether this means that all graduates should be specialists in technology, Gallagher (2020) stressed that it means working *alongside* technology, not necessarily *within* it. He added that universities are typically organised in a linear fashion and arranging them in cross-cutting or interdisciplinary ways can enhance the development of the adaptable nature of skills needed for the future of work. This is similar to the views of one of the civil engineering faculty members at *Glocal*, who stressed that technology was not just permeating systems but also changing the way jobs were structured, by giving an example of working at Tesla. Although Tesla is an automobile organisation, working there now means that employees have to write software for operating cars, rather than actually assembling them.

Similarly, Najam (2021) asserted that organising and teaching knowledge using cross-disciplinary platforms is crucial to the success of the future workforce. He believed that higher education was subject to a "caste system", whereby technical education was perceived as more prestigious than liberal education. Giving an example, he said that, in the future, organisations like Facebook and Twitter are likely to need people who can make complex, ethically challenging decisions in split seconds, rather than just those

who know how to code software. Therefore, Najam (2021) also made a strong argument for teaching and learning to take place in interdisciplinary departments. This makes the relevance of an engineering degree with a liberal arts dimension, as offered by both *Homegrown* and *Glocal*, particularly relevant for the graduates of the future. In keeping with such findings, Brown, Lauder and Cheung (2020) proposed a *new* human capital approach, as opposed to what they termed the "banking model" of human capital, fixated on monetary investments and returns from higher education. They stressed that the purpose of higher education for individual growth deviates from the purpose of higher education for employment. Therefore, the *new* human capital model they posit empowers graduates to take an active approach towards balancing "short-term acquisitive learning with long-term inquisitive learning" (p. 160), as was evident in *Glocal*'s vision and strategies.

So far, the findings from this study focused on the relation between employability and the curriculum and university experience at *Homegrown* and *Glocal*. The third, and final, prominent theme that emerged from the data is related to the interaction between the development and transfer of relevant skills to the workplace. That is, the unique structural forces at play in the local labour market.

6.3. Structural factors in the labour market

Finally, and quite evidently, the results of this study suggested that employability was largely outside the control of both *Homegrown* and *Glocal*, at least when gauged and measured through employment (see section *2.2.1. Employment versus employability*, for an overview of the difference between the two concepts and their mediating roles). The labour market in the UAE presented unique challenges for graduates seeking internships or full-time employment. In that, a few sub-themes emerged from conversations on this topic, with all participant groups, at both institutions. These included mobility restrictions, economic conditions and cultural factors, and hiring models that will now be discussed, in turn.

6.3.1. Mobility restrictions

According to data available on the institutions' websites, students at *Homegrown* and *Glocal* came from almost 100 countries, and aside from going back to their 'home' or passport country, they would often pursue employment leads globally. Most students from *Homegrown*'s sample chose to stay on in the UAE for work, particularly because they had families who lived here. A majority of those at *Glocal* stayed on in the UAE because of existing networks with employers and familiarity with the local environment.

Students and alumni at both institutions expressed concern over the validity of their student visas. Generally, students' visas were only valid until they graduated. If, upon graduation (or a few months after), they did not have a job offer, they would have to leave the country unless they had immediate family here to sponsor them, or another way of ensuring that they got a residence visa for the UAE. It is important to note that the UAE does not offer permanent residence or citizenship to expatriates. Due to such factors, staying on in the UAE is challenging for some students, particularly as they may not have had sufficient time to look for job opportunities with their busy study schedules. However, in a recent development, the UAE announced the introduction of "green visas" in order to attract foreign investment as well as allow graduates to stay in the country. Under this initiative, workers who have their own business can sponsor their parents and their children up to the age of 25 (this was previously capped at 18 years of age). Students aged 15 and over can now find part-time employment in the country, which was previously not possible (Tolley and Reynolds, 2021). Additionally, investors and entrepreneurs with existing businesses can now apply for a renewable, ten-year visa, called the "golden visa" (Badam, 2021).

Students and members of programme leadership at both institutions expressed that venture creation was costly, although it was one way to guarantee a residence visa. Therefore, students interested in entrepreneurship may be tempted to look for a job in order to secure a legal status in the country and save money, before exploring more creative possibilities. According to the programme heads of computer engineering at

both *Homegrown* and *Glocal*, the local government was not funding the research landscape heavily enough for students and fresh graduates to pursue entrepreneurial opportunities.

Therefore, the current immigration structure in the UAE was a barrier for graduate mobility within the region. Such barriers to access and funding seem to be lifting, albeit slowly.

6.3.2. Economic landscape and cultural factors

Programme leadership, students, and alumni from both institutions, across civil and computer engineering, also reported a lack of research and development infrastructure in the country.

For civil engineers, the underdeveloped technological and hiring landscape of the UAE meant that a few conglomerates dominated the labour market, limiting learning opportunities for fresh graduates in the workplace, and innovation in the wider context. Civil engineering students and alumni in the study reported a slump in the UAE market as early as 2018, which was further impacted by the COVID-19 pandemic, and saw some alum's job offers being rescinded.

For computer engineers, this meant that the environment was suitable for those looking for sales, marketing, and consulting jobs at best, but did not allow opportunities where they could truly use their programming and software development skills. That is, the UAE is not a full-fledged technological hub just yet. This possibly means that there could be very few non-linear and cross-disciplinary job opportunities available for graduates. Having said that, according to one news article, at least five out of the ten in-demand roles for 2021 in the UAE were predicted to be technology based, including software engineers, data scientists, digital product developers, roles in cloud infrastructure, and those in educational technology (Nasir, 2020). It is unclear whether this article was reporting the prediction for entry-level jobs. Another news article

reporting specifically on entry-level jobs in the UAE, did not mention technology-related jobs as a prime source of employment for fresh graduates during the economic recovery expected in 2021 (Nair, 2021).

The research and development landscape may also be changing as the UAE rapidly strategises its next 50 years of development. In recent news, it was announced that global technology accelerator Plug and Play had signed an agreement with an investment authority in the UAE, to attract technological start-ups to the region, and other governmental initiatives have invested in startup hubs, particularly for the youth (Rahman, 2021; UAE Government Portal, 2020a; UAE Government Portal, 2020b; UAE, 2020).

Another challenge reported in the current study was the lack of cohesive collaboration between academia and industry. Administrative participants at *Homegrown* mentioned networking with employers and organising guest lectures and site visits as one-off activities, but did not talk about sustained relationships with employers over the long run. While programme leaders of computer engineering seemed to think they tapped into the market by building relations with prominent employers such as Microsoft and IBM, students and alumni disagreed about the value of these relationships, perceiving them as PR- rather than employability-related. In fact, faculty members and career services' staff at *Homegrown* mentioned that employers were not interested in liaising extensively with academics, and students reported that they were not interested in providing challenging or meaningful internship experiences either.

In general, the employer-university relationship is a complex one with no readily available solution to make interactions and policies integrate seamlessly. This is particularly so because needs and expectations vary across labour markets and even across organisations, with no clear policies or long-term strategies governing their relationships (Tomlinson, 2021b). In this study, employer relations' strategies seemed to flow from each institution's conceptions towards employability, as described in section *6.1. Employability worldview.* According to Munyampenda (2020), the grave

challenge in planning for future skills, is to have reported data trickle down to actual policy making. In other words, the lack of partnership between academia and industry acts as a barrier to implementing research-based policies. Often, employers have a notion of the skills needed for future careers, but cannot operationalise them in the same way as academics and students do (Batra, 2018; Gallagher, 2020). Therefore, partnerships between higher education institutions and industry are crucial in bridging information gaps between relevant stakeholders of employability.

Although employers were not part of this study's participant pool, I interviewed one talent acquisition expert, Fahad Chaudhry (name changed for ethical reasons), with over 15 years of experience in academia, engineering, and consulting firms within the UAE and abroad. I wanted to understand the findings of the study from an employer's perspective. The views of alumni were invaluable in understanding the challenges graduates face in the workplace. However, a hiring manager's perspective added an additional layer of analysis to the findings of this study.

According to Chaudhry, graduates from non-liberal arts universities, especially South Asian branch campuses in the UAE, tend to be exceptional performers when technical skills dominate the job description. However, they often lack the ability to progress in a job role where critical thinking and especially, effective communication competencies are required. This makes the liberal arts graduates more suited towards career progression and leadership roles (Chaudhry (pers.comm.)14 November 2020). The career services' office, as well as members of the programme leadership at *Glocal*, advocated this and mentioned that preparing graduates for leadership roles was a specific goal of the university. However, further research is needed in order to ascertain whether soft skills learned at university are transferrable to specific corporate cultures or even across organisations and industries.

Keeping these trends in mind, Chaudhry emphasised that early engagement with students and faculty members is crucial in order to develop employability skills and graduate identities. Career fairs may allow employers and students to gain exposure to

each other but ultimately, students feel undervalued when the type and number of jobs in the market does not match their expectations. This makes it seem like employers are giving graduates false hope, as reported by *Homegrown* and *Glocal*'s students and alumni alike. One way to overcome these challenges, according to Chaudhry, is for employers to engage directly with faculty members, obtaining information on, and shortlisting the graduating students whose skills, abilities, and competencies match current or future job requirements. Furthermore, hiring faculty members with industry experience, even if in part-time teaching positions, is essential to bridging the gaps in academic and industry research, knowledge, and trends. Overall, employer engagement with the curriculum, and the presence of business leaders in course development, panel discussions, lectures, seminars, and projects are central to sustaining employable identities (Chaudhry (pers.comm.)14 November 2020). Both these suggestions were also mentioned by current students in the participant pool.

From their study at a Lebanese liberal arts university, Nauffal and Skulte-Ouaiss (2018) reported that employers favoured STEM-based degrees as opposed to traditional liberal arts subjects. However, they also preferred well-rounded graduates, equipped with soft skills and career development competencies, instead of those with just technical skills. Nauffal and Skulte-Ouaiss' (2018) study has important parallels for this thesis, especially since the institution where they conducted their research had an operating structure very similar to that of *Homegrown*'s. In addition, they reported similar conditions in the Lebanese labour market, although the financial and economic landscape of Lebanon and the UAE are incomparable, owing to rising political tensions in Lebanon over the past few years. In particular, 'elite' universities boasted graduates that were more employable, although the determining factors of employability in such cases were their alumni networks, social class, and social connections, or *wasta*. It is important to note that this is different from the trend in pre- and post-1992, or old and new, universities in the UK, where social class was seen as a determinant to university selection rather than employability (Reay, 2016). In this case, both institutions in the current study can be viewed as 'elite' institutions within the UAE due to their reputation, global brand value, accreditation, range of degrees on offer, funding opportunities,

diverse student and faculty bodies, and contribution to research and scholarship in the region. However, individual student experiences varied, as their social capital did not guarantee successful employment, employability, or even adequate salaries.

Return on investment in education was a growing concern in Middle Eastern markets, particularly by civil engineering alumni. Tomlinson (2021a) suggested that while value for money is a concept particularly relevant to those who invest using monetary means into their own education, it is also prominent in institutions that are publicly funded, such as in this study (Tomlinson, 2021b). The graduate employability discourse has only increased the salience of this debate. Historically, the Human Capital Theory suggested that investing in higher education would increase graduates' earnings and lead to better career opportunities (see section *2.1.2. The Human Capital Theory's missing links* for an overview of inequalities in higher education). Until recently, the relationship between learning and earning was perceived to be linear, when comparing the average earnings of graduates versus non-graduates. Britton et al.'s research (2020) suggested that the average lifetime gains from attending an undergraduate degree were significant, but these statistics were mainly reflective of the highest-earning graduates and were pertinent to STEM disciplines. However, according to Brown, Lauder, and Cheung (2020, p.50), a graduate premium based on average earnings is flawed because it masks inequalities in both, education and salaries. Najam (2021) gave a more encompassing view of this debate, citing the examples of unemployed graduates versus those with prestigious careers making unethical decisions. He claimed that both were "bad outcomes" of employability and perhaps expanding the return on investment debate to include the return on societal and global goals would be better suited to a liberal education philosophy.

6.3.3. Hiring models

In addition to political, economic, and social considerations, the UAE presented unique challenges for graduates in terms of the hiring practices followed by employers. These

factors were succinctly and accurately described by Davis, the director of the career services' office at *Glocal*, as an "underdeveloped meritocratic model of hiring".

As discussed in section *6.3.1. Mobility restrictions*, the geographic location of the UAE positions it as a hub for education and employment, attracting ethnically diverse students and workers. However, this means that the location, combined with the immigration processes, also allows the import of cheap labour from South Asian countries, particularly for civil engineering and construction-related jobs. This is possibly why actual wages were lower than graduates were initially made to believe. This held true for all nationalities except *Emiratis*, who were given preferable jobs and salaries, as confirmed by an *Emirati* student in the sample. In fact, she expressed that *any* degree from *Homegrown* would help her find a job, because her nationality combined with her social capital was more important to employers, than the discipline of study. In addition, skilled jobs were seen to be easier to obtain for *Emiratis* under the nationalisation policy that encouraged employers to hire UAE nationals and set quotas for the same, particularly in government organisations (Ashour, 2020; Fenech, Baguant, and Abdelwahed, 2020; UAE Ministry of Human Resources and Emiratisation, 2020). Where *Emiratisation* was not an issue, alumni reported that those with *wasta* had a higher chance of securing suitable jobs.

These norms meant that expatriate fresh graduates had little support in finding jobs and charting careers of their choice, especially in civil engineering. One civil engineering alum from *Homegrown* recalled that employers preferred to shortlist job candidates from CVs that they received physically, despite advertising jobs online using LinkedIn and other job search platforms.

Of particular concern to students and alumni at both institutions was the timing of hiring cycles. There was a noted mismatch between the hiring cycles and the graduation dates, particularly from employers of choice. Hiring took place before students graduated, putting them at a disadvantage because of the time lag before new vacancies opened up. Combined with the expiry date on residence visas (see section

6.3.1. Mobility restrictions for an explanation), this meant that employment and employability were dictated by external factors. Thus, as Davis noted, the hiring practices in the UAE, as they related to participants in this particular study, were not based on giving candidates a chance at employment based on their merit. Rather, they were predominantly dictated by economic and cultural factors.

According to Chaudhry, the findings of this study resonated with the UAE labour market conditions, although the employers' perspective is different from the academic perspective (Chaudhry (pers.comm.)14 November 2020). Similar to Groenewald's (2012) suggestion, Chaudhry said that the idea of graduateness and employability seem to diverge depending on job requirements. Hiring fresh graduates for vacancies is largely an exercise carried out by employers for their own needs and therefore, may not coincide with graduation cycles. Furthermore, a typical entry-level vacancy may not demand graduates to demonstrate exceptional non-technical skills in order to succeed in the workplace or even just to get hired. Recruiting specifically for corporate graduate programmes or leadership development programmes, on the other hand, is likely to be synced with academic calendars. These programmes are designed to provide training for fast tracked leadership positions, thus preferring graduates who excel at more than just technical skills. Given that hiring for such programmes is typically aligned with academic calendars, this automatically skews the hiring process towards those who demonstrate superior leadership skills and competencies. In addition, not every graduate aspires to follow a leadership programme that leads to employment in the same organisation. As the current study has demonstrated, several graduates wish to pursue further education, and such leadership programmes may seem binding, although they indicate an employer's willingness to invest in graduates. However, as argued earlier, Chaudhry's comments imply that STEM graduates with a deep-rooted liberal education, such as those from *Glocal*, are better suited to careers in engineering management and leadership, particularly in knowledge economies.

This chapter elicited broad, overarching themes from the data presented in *Chapter 4: Findings: Homegrown* and *Chapter 5: Findings: Glocal*, and synthesised them with

contemporary employability literature. In doing so, it emerged that the UAE's job market is atypical in its hiring practices. According to participants, entry-level roles started with exceptionally low salaries because of the oversupply of workers, both recent graduates and experienced ones. This was particularly true for the civil engineering job market. Credentials, experiences, and jobs that would otherwise seem to start with a high salary, particularly for computer engineers, did not exist. The technological landscape for computer engineering was seen to be underdeveloped and structured to act as a sales and marketing hub for world renowned companies. This essentially meant that the computer engineers from the two institutions in this study graduated with a skills' mismatch for organisations that would presumably be their top choice of employers.

Given these labour market characteristics, the students and graduates from *Homegrown* appeared to act like "purists", seeking an ideal job match with their qualifications, while those from *Glocal* appeared to act like "players", gaining experiences and tweaking their personal employability narratives in ways that would make them seem more competitive (Brown, Hesketh, and Williams, 2004). The views and experiences of participants in this study vis-à-vis the talent management strategies they referred to, suggested that employers in the UAE follow a "war for talent" model of talent acquisition and management (Brown et al., 2018). Here, graduates in this study preferred to be distinguished and classified into strategic jobs as top talent, not support staff. However, employers and firms in the region had support and surplus jobs to offer to graduates, especially in the form of entry-level roles, saving the strategic ones for more experienced workers. Therefore, in line with their respective visions and consequent employability worldviews, both institutions can be seen to develop sufficient employability capital for their graduates. In particular, *Homegrown* seemed to be more successful in its efforts within the UAE while *Glocal* appeared adept at doing so on a regional and international scale. However, in line with past and future trends and patterns described in the literature, *Glocal* appeared to be a stronger player in creating employability capital for its graduates over the long term.

6.4. Concluding remarks on the findings of this study

Brown, Lauder, and Ashton (2015) argued that globalisation has led to a “global auction” for both skilled and non-skilled jobs by causing structural changes in global labour markets. While their argument reflected primarily on Western economies, it seems to apply to the findings of this study, albeit as a competition between graduates and unskilled labour. In particular, civil engineering graduates seemed to be in competition not just with each other or with graduates from other countries, but also with unskilled workers from South Asian countries willing to work at lower salaries. That is, the educated workforce was competing for jobs with those who were not necessarily educated in the relevant field, but may have possessed competencies to work within it (Lauder and Mayhew, 2020). These challenges were further impacted by a significant increase in university enrollments across the world indicating a significant upcoming increase in labour supply (Brown, Lauder, and Cheung, 2020). This was evident as job offers were rescinded due to the pandemic and graduates opted for further studies over paid employment.

Restructuring markets, therefore, may not be as simple as investing in education or in the labour market. Tomlinson (2021b) emphasised that while much of the employability discourse is focused on demand- and supply-side factors to reconcile the gaps between academia and industry, “wider mediating factors” in the labour market need attention in order to positively impact the university-industry relationship from the outside in. This may require evidence-based interaction involving governments in a “key facilitating role”. Nevertheless, given that the ‘best’, or most talented, students are attracted to the most reputable universities, *Homegrown* and *Glocal* are at an advantage of securing better futures, in industry or academia, for their graduates, compared to other universities in the region with less social and financial capital.

Even then, the relationship between education and work performance in the knowledge economy is not a straightforward or direct one, because we cannot generalise which skills are wanted and the degree of their transferability. In fact, as the alumni at both

Homegrown and *Glocal* explained, knowledge gained through their coursework did not necessarily translate to the demands of the workplace, even in terms of the software used to perform essential tasks. Therefore, being a “top student” may not necessarily mean that someone is a “talented worker” (Tomlinson and Jackson, 2021). This may hold particularly true in vocational disciplines, including engineering, because the key here lies in the application of knowledge to real-life scenarios (Lauder and Mayhew, 2020).

The dichotomy between hard and soft skills, vocational and arts’ subjects needs to be blended seamlessly in curricula given that STEM-based subjects typically require behavioural skills necessary for adequate work performance, while non-STEM disciplines require analytical competencies across job categories and industries. Brown, Lauder and Cheung (2020, pp. 161-167), therefore, suggested a model of lifelong learning based on “learning to know (how to gain a better understanding of the world), to do (things out of the ordinary as well as the ordinary, mundane ones), to be (intrinsically motivated through self-knowledge, personal integrity and conduct), and to work and live with others (through mutual recognition and respect)”.

To summarise, higher education is seen to be going through what some term an “existential crisis”, balancing the creation of knowledge with preparing graduates for the future world of work (Munyampenda, 2020). Now, more than ever, universities across the globe must revamp education and training to equip graduates for the 4IR. In fact, Gleason (2018) emphasised that the role of the liberal arts should take centre stage in the 4IR curricula, as it has the ability to expand the interdisciplinarity of skills. In relation to Becker’s work, this shows that the returns on upskilling, mid-career professional development, training, and education are higher than ever, making investment in lifelong learning a necessity (The Economist, 2017).

Chapter 7. Critical Reflection and conclusion

The previous chapter presented an analysis of the findings of this study, comparing the views of key stakeholders across the civil and computer engineering programmes at *Homegrown* and *Glocal*, two liberal arts institutions in the UAE, with contemporary employability literature. This chapter will first summarise the findings in relation to the research questions, before explaining the contribution of this study to the employability literature. Finally, it will conclude by reflecting on the limitations of this study and highlighting avenues for future employability research in the liberal arts and in the UAE. In doing so, it will answer the concluding research question by reflecting on how successful these two institutions were in developing graduate identities vis-à-vis the strengths, opportunities, and threats they faced.

7.1. Reflecting on the research questions

This study sought to understand how various stakeholders at two American-style, liberal arts institutions in the UAE envisioned and enacted employability, through curricular and extra-curricular initiatives. Participants were selected from the civil and computer engineering undergraduate programmes, with the former being low on the employability spectrum, and the latter being a highly employable discipline, according to staff at the career services' offices of these institutions. More specifically, these were STEM degrees embedded in a liberal arts philosophy, which made the analysis of data richer. This is because, compared to liberal subjects, STEM disciplines are typically associated with a high degree of technical expertise, vocational training, and employability.

A range of stakeholders were selected as participants, including staff from the career services' and international education offices, programme leaders, faculty members, current students, and alumni. This provided a 360-degree view of employability for these two programmes within the university setting, while also gauging real-world experiences of labour market conditions through alumni's views. Given that this study was limited in scope in terms of time and resources, there were only a few participants

per group (see *Table 3.3.3. Description of Individual participants*). Therefore, it could be that the individual views of these participants are partial. However, I had a valid cross-section of the combined participant groups, within and across both institutions. I also verified the findings of this study with one talent acquisition specialist who had extensive experience working in academia as well as recruiting graduates in engineering firms within the UAE. In particular, this study aimed to explore the value of a liberal arts education for engineering graduates, understand the perceptions and experiences of stakeholders who were involved with employability first-hand, and analyse the challenges and opportunities that they faced with regards to their employability.

In doing so, the following research questions were proposed for investigation through this study:

In what ways is employability embedded in, and enacted through, the curricular principles and university experience at two liberal arts institutions in the UAE?

This overarching research question was supplemented with following sub-questions:

- *What are the perceptions and experiences of various higher education stakeholders in relation to the employability of graduates?*
- *What is the meaning and value of a liberal arts undergraduate education for employability?*
- *What challenges and opportunities do stakeholders face in shaping graduate identities?*
- *Overall, how successful are these two institutions in developing graduate identities vis-à-vis the strengths, opportunities, and threats they face?*

In summary, participants at *Homegrown* had a traditional, surface-level view of employability, where it was embedded in skill development within the curriculum and career services' offerings, and enacted through PR exercises with employers and very basic support for students from the programme leadership and relevant administrative

offices. While students engaged with employability programmes available to them in the form of mandatory courses and internships as well as voluntary projects, clubs, and career fairs, they had difficulty managing strenuous academic workloads with such opportunities. In addition, internal communication and collaboration between various stakeholders at *Homegrown* lacked efficiency, and students lacked social and logistical support in operationalising their knowledge and learning towards developing employable identities. On the other hand, *Glocal*'s conceptions of employability were more complex and focused on creating holistic lifelong graduate identities through a vast array of curricular and extra-curricular options available to students. In that, the programme leadership and career services office worked collaboratively with each other and with students, in order to provide a portfolio of options students could select from, in line with their preferences, circumstances, and dispositions. This was evident in *Glocal*'s curricular decisions, which embedded a mandatory community service project for engineering students, but made conventional internships optional, should students wish to engage in research-based activities instead.

Stakeholders across both institutions praised the liberal arts curriculum for creating well-rounded graduates at both institutions, and according to the literature, it presents an opportunity to enhance employability in knowledge economies. However, the way in which it was conceptualised, embedded, and enacted at each institution varied. At *Homegrown*, a basic model of the liberal arts was applied, which meant that students took general education courses in areas of the arts, mathematics, science, and humanities, before or while specialising in a field of their interested. At *Glocal*, students undertook courses in topics relevant on a global scale, both historically and looking ahead at challenges in the future. Furthermore, the philosophy behind the liberal arts was embedded more deeply in the minds and across the policy chain at *Glocal*, where there was a deliberate focus on interdisciplinary knowledge, teaching, research, and practice, even within STEM degrees. This was understood at the leadership level to feed into identity development for graduates who would go on to work in global markets during challenging times.

Finally, the UAE's labour market emerged to be atypical and unique with underdeveloped technological landscapes and hiring models, offering low salaries to graduates who otherwise seemed exceptionally employable, ultimately hindering their ability to act upon or transfer their employable selves seamlessly to the workplace. Expatriate students also reported facing difficulties in finding jobs due to *Emiratisation,* and in some cases, due to lack of *wasta*. This showed that graduate employment, at least in the case of these two institutions was largely dependent on factors outside their control, particularly in *Homegrown*'s case, where the focus was on regional employment. This finding potentially means that, at best, higher education institutions can instill employability through resilient mindsets and adaptable graduate identities, as emerged in *Glocal*'s case.

As a reminder, *Homegrown* aimed to position itself as a leader in the Middle East, although the institution aspired to be recognised globally. To the contrary, *Glocal*'s mission was clearly oriented towards solving the challenges of the twenty-first century through education. Therefore, both *Homegrown* and *Glocal* were successful in their employability offerings with regard to their respective visions, missions, programme learning outcomes, and funding constraints. However, in my view, *Glocal* went the extra mile in embedding employability by instilling lifelong employability capital for its graduates, particularly in light of careers of the future as forecasted by the literature. In doing so, I believe the institution made students and graduates willingly take control of their own identities and flexibly adapt them to the needs of various sectors, owing to their interdisciplinary learning and training.

7.2. Contribution to the field

This study makes important theoretical, methodological, and empirical contributions. Theoretically, as *Chapter 2. Review of the literature* showed, this study contributed to the dearth of employability literature in the UAE (see section *1.1. Contextualising this study*) and that on employability in the liberal arts. In that, this study cohesively investigated employability at two institutions and in depth, adding to otherwise

disconnected literature. The findings of this study validate how the supply and demand equilibrium of jobs does not adjust organically, and highlights the unique, extraneous forces in labour markets that prevent this from happening. Thus, this micro level study shows that employability models cannot exist in isolation within higher education institutions and must be calibrated with forces in macro environments, allowing policymakers to understand factors that hinder or enhance the reality of employability.

This study also delved into a lesser explored topic in employability research: the liberal arts (see section *2.1.3. The role of liberal arts in educating for knowledge economies* for an overview). Traditionally, university education, as well as the liberal arts, were associated with students who came from advantageous backgrounds, and had high levels of social capital to begin with. According to the findings of this study, a significant increase in university enrollments over the past few decades, combined with the oversupply of graduates in global labour markets, has meant that the liberal arts can potentially equip graduates with skills and competencies to tackle complex challenges, that purely technical degrees have struggled with. In addition, this study explored a further dimension: the value of two STEM disciplines, with varying degrees of employability, rooted in a liberal arts philosophy. This is interesting because STEM disciplines are associated with a high degree of vocationalism whereas traditional liberal arts have been criticised for their low vocational value and consequent, low earnings, since universities assumed economic importance. Overall, this study helps to understand that the original and contemporary purposes of higher education, as reviewed in section *2.1. The evolving purpose of higher education*, may in fact be complementary rather than mutually exclusive.

Empirically, this study provides evidence of the mismatch between learning and earning, specific to the UAE, while allowing readers to visualise where employability gets operationalised in the university policy chain. More importantly, it provides evidence and data, albeit limited, from an otherwise sheltered and secretive economy, with no reliable or publicly available country-wide statistics.

Methodologically, this study offers a comprehensive internal and comparative view of employability at two institutions by researching the views of several groups of stakeholders across the university policy chain. Encouraging alumni to share their views enabled the validation of current students' views, added a longitudinal element to the study, verified labour market influences on the enactment of employability, and acted as a proxy for employers' views, somewhat expanding the limits of otherwise bound cases.

Finally, in my experience as a researcher, I have not come across any other study that has used concept maps as a data analysis tool or a qualitative tool in employability research. I had initially planned to use concept maps as a reflective tool for rich, qualitative data generation along with in-person interviews, as I have done in an earlier study (see Batra, 2021). However, restrictions posed due to the pandemic made it impossible to meet participants face-to-face. Having participants create concept maps online could potentially be challenging and frustrating for them, and even deter them from participating. Therefore, in a short span of time, I adapted the methodology to conduct online interviews and focus groups, using concept maps as an illustrative tool for thematic data analysis instead. To that extent, this study also offers young researchers lessons in adaptability and flexibility.

7.3. Implications for policy and practice

This study has important implications for both the practice of and the policies surrounding employability. The findings call for stronger cooperation between teaching, curricular, and administrative practices at higher education institutions. In particular, as workforce landscapes, such as those in the UAE, undergo rapid and unprecedented changes, supporting students cohesively through their acquisition and implementation of learning is becoming paramount. Industry transformations such as those brought about by the technological and economic factors, both related and unrelated to the pandemic, mean that students must be supported through teaching and learning that is relevant to the current, globalised world. This also necessitates assistance from career services offices' in navigating niche career opportunities, and understanding students'

preferences and dispositions as they align with such possibilities. For example, Ibtisam, a student from *Glocal*, knew that she wanted to pursue data journalism, a unique avenue that the UAE's landcape did not support. She developed this understanding of her identity through the multitude of employability-related initiatives available to her at *Glocal*. However, further support from the career services' office could help her understand how to capitalise on her preference, given labour market conditions, especially since she faced mobility restrictions due to her citizenship.

Related to this is the need to build engaged and sustainable relationships between higher education and industry in the UAE. In doing so, 360-degree frameworks that analyse institutions' strength in employability offerings, from an internal and external, curricular, operational, strategic, and partnership view, will allow stakeholder engagement beyond what is currently necessitated in curricular policies. At an operational level, this recommendation could even be as simple as career services' offices encouraging students to self-reflect using Tomlinson et al.'s (2021) Graduate Capital Scale, a self-report measure that uses Tomlinson's (2017) model of graduate capital as its foundation. Ultimately, this will allow students to benefit from equal opportunities in expanding their professional networks and career development avenues.

From a policy standpoint, the findings of this study beckon federal governments in the UAE to invest more heavily into the higher education sector at large, and equally between different types of higher education institutions, albeit with caveats for spending towards admissions and employability. Such policies should aim to eradicate barriers for students to enter and exit higher education, specifically in the form of merit- or need-based scholarships and local and international research and internship experiences. Related to that, based on the disparities evident in student programming between *Homegrown* and *Glocal*, particularly in the form of international education and research, it would be useful for global education to be pushed within policy frameworks. Advocating global education for a global workforce, on a national level, will leverage the

UAE's geographic location and ethnic diversity to develop future-ready local talent and attract top global talent.

7.4. Limitations of the current study

In designing and conducting this study, I faced some methodological and logistical challenges. To begin with, the ethical approvals from each institution took several months, delaying the start of data collection. As soon as the study was approved by the relevant ethical committees, governmental restrictions on in-person data collection were enforced, due to the onset of the COVID-19 pandemic. This was, perhaps, the biggest challenge I faced when conducting research for this thesis. I was forced to adapt the study for online data generation. While this did dampen my spirits initially, the response rate and willingness of participants to engage was surprisingly positive, given that the pandemic had altered everyone's studying, teaching, and working conditions, demanding more of their time and effort.

Next, generally low response rates and a lack of trust in research in the region meant that snowball sampling was the most effective method to use in building trust with potential participants, especially in a short span of time. Ideally, I would have used probability sampling in order to collect data that would be more representative of the population in question. Therefore, in essence, I did not predetermine the size of the sample for this study, but halted data collection when I thought I had gathered sufficiently rich data.

Third, when analysing the data, I found it challenging to separate the concepts of employment and employability myself, despite starting each interview by clarifying the difference with participants. The analysis showed how inseparable the two concepts are, as evidenced by their linguistic similarity.

Finally, my role in conducting this study as a "detached insider" (see section *3.1. Positionality statement*) presented some challenges. I believe my role made it easier for

me to establish rapport with, and authentically understand the linguistic references and lived experiences of, the participants. However, I found it difficult, at times, to navigate the organisational culture at *Homegrown*. The power distance appeared high from the participants' language and communication styles, and this was particularly salient with programme leadership including faculty members and programme heads. I was much younger than the leadership stakeholders, a female researcher, and from a non-technical background. Sometimes, this made me feel intimidated. For instance, one of the programme heads' body language and comments signalled that they perceived themselves to be in a more powerful or knowledgeable position owing to their age and seniority of affiliation. I have noticed this in the past with older, male, colleagues, acquaintances, and past research participants from the same ethnicity. At times, I found myself comparing the institutions as an internal, entrusted member, rather than a researcher on the outside. Reminding myself that I was an outsider, qualified to conduct this research, and with no direct influence on or from these participants, helped to keep my attention focused on the interviews. To the contrary, at *Glocal*, I noticed that some faculty members, who are distinguished practitioners, took out time from their busy schedules to accommodate my request.

Overall, I do not think that these limitations compromised the study significantly in terms of its scope, methodology, and findings. The next section will describe future directions of research, particularly considering the limitations described above.

7.5. Future directions for employability research and concluding thoughts

Based on the limitations faced in conducting this study, I believe that research on the forces shaping employability could benefit from the following considerations. First and most importantly, one avenue for future research would be to add employers to the participant pool and follow the design of this study. For the current study, it was difficult to trace employers who had recruited students from these particular institutions and programmes. However, employers' views would add legitimacy and validity to the findings, allowing researchers to capture a panoramic view of employability. Given the

challenges posed by my role as a “detached insider”, it would be beneficial to involve a range of researchers in future projects, particularly those that are larger in scope, to enhance the objectivity of the findings.

In larger studies, expanding the participant pool to include participants from other programmes would add a dimension of cross-disciplinarity to the study, beyond that offered by the liberal arts course structure. In fact, I initially wanted to send out a university-wide survey at both institutions, in order to validate whether the findings generalised beyond the civil and computer engineering programmes. However, this was not a part of the approved research design and so, I did not follow through with it, given the lengthy approval process from the research ethics committees at both institutions. My original aspirations for this study involved incorporating structured observations in order to understand how employability was being taught in the classroom. Additionally, I wanted to consult course syllabi to look for explicit mentions of employability and related skills and competencies. I omitted this aspect from the research plan because it would stretch the study beyond its scope and risk running into access barriers due to a lack of trust from participants. However, these suggestions can be incorporated into larger, in-depth, studies on employability in the UAE.

From an economic standpoint, it would be useful to understand the labour market forces at play, in greater depth. In doing so, researchers can potentially study past and existing, successful and unsuccessful, partnerships between academic institutions and industry partners. This would help to gauge how graduate identities can be enhanced cohesively through undergraduate curricula and university experiences, especially when financial resources are constrained. In particular, the role of international branch campuses in the UAE and whether their graduates are more or less employable than those of local competitors can be explored further. The unique characteristics of the UAE’s geographic and demographic landscape necessitate additional employability research using extensive samples from UAE’s higher education institutions. This will help to assist both *Emirati* and expatriate students and graduates in shaping their employable identities relative to labour market needs, opportunities, and challenges.

Finally, a longitudinal study on the changing job structures in specific disciplines, particularly in light of the 4IR, could capture just how fast job profiles are evolving, relative to changes in curricular structures.

On the academic front, a fuller picture of employability can be explored in higher education institutions maintaining employability portfolios, or those auditing for employability. Employability portfolios are a means of collecting students' personal, academic, and professional achievements related to their employability developments on one platform. These can be digital or paper-based platforms, which are made available to students, recruiters, and employers, after graduation (Cairns, 1996; Creasey, 2013; Hooker and Whinstance, 2016; Knight and Yorke, 2003; Woodley and Sims, 2011). They can be seen as a passport or transcript of employability and may even be tailored to specific disciplines, allowing learners to document their skill development, understand where the potential for improvement exists, and reflect on their employability journey (de la Harpe and Radloff, 2000; Stephens and Hamblin, 2006). Ruge and McCormack (2017) added that employment rates, quality of jobs, and self-report measures can be used to complement the audits after mapping employable attributes with behaviour. Furthermore, Clokie and Fourie (2016) suggested that such mapping can also be done against employers' views on how employability should be embedded.

Harvey (2005) argued for institution-wide employability audits, taking stock of the entire employability offering of a university, as opposed to individual students' potential. In the current study, staff from the institutional research offices at *Homegrown* and *Glocal* were part of the original sample (see *Table 3.3.3. Description of Individual participants* for additional details of these participants). However, both the offices were seen to take a back seat when it came to employability data. That is, they did not maintain specific records of it, neither did they exert influence on it. This showed that a concept like employability, particularly in situations where it is not an explicit strategic objective of a higher education institution, has limited reach in the policy chain. Even then, the interviews did help in locating and contextualising employability at both institutions.

Perhaps future research can explore the potential of institutional data in helping higher education institutions to improve their social capital with employers.

As an example, Tariq et al.'s study (2004, pp. 71-74) described a detailed employability audit tool which used an auditing pro forma to identify the level of support being offered to students in developing key skills and competencies, determine the level of proficiency of each of these skills, and highlight avenues for improvement. This process then fed into mapping skills across different modules or subjects, and eventually across an entire degree programme. Merging this toolkit with Harvey's (2005) philosophy for an employability audit could prove beneficial in evaluating employability offerings of higher education institutions in their entirety. In order to gain a deeper insight of employability initiatives through the curriculum or university life, frameworks that are tailored and specific in nature must be employed within broader ones, while paying specific attention to local governance and contexts (O'Sullivan, 2015).

Moving forward, the global auction for jobs will, perhaps, be best addressed by redefining the value of education as the core of competitiveness, especially for science and technology jobs as they evolve in knowledge-driven economies. In conclusion, research on graduate employability is essential as the concept is both a public and a private matter involving several stakeholders, industries, and sectors worldwide. In Holmes' (2017, p. 366) words, "our concern . . . [is] to open up and raise the quality of debate, to show that there are concepts and theoretical approaches that afford richer, more nuanced [mechanisms] to research than the currently dominant discussions admit."

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Appendix A: Sample emails to participants

Initial email to participants

Dear [insert name],

I hope this email finds you well. My name is Alizeh Batra and I am a doctoral candidate at the University of Bath, UK. I am pursuing a Doctor of Education in Educational Research and am working towards a research report of 45,000 words. For this, I would like to conduct a comparative analysis of two universities in the UAE, and how they embed and disseminate employability through the curriculum and university experience associated with two of their comparable programs. The two universities in the study have been purposefully selected as they have a similar focus on liberal education as well as comparable programs. This study aims to explore how stakeholders view the development of employability through the curriculum and undergraduate experience, and evaluate the effectiveness of formal and informal initiatives in preparing graduates for the local and international workforce.

[*Insert university* name] is one of the universities I am conducting research at. I will be conducting interviews and focus groups, and developing qualitative concept maps, with members of leadership and curriculum committees, career centre and institutional research staff, senior students, and alumni. *After career centre staff interviews are over:* The two programs selected for study from your university are *[insert program names*].

While there is a plethora of research around the importance of employability internationally, there is no known research study on this topic from the UAE, using the methods I propose. Therefore, your participation is invaluable to the completion of this study and my degree, and to the advancement of employability research in the region.

Note that in order to be attentive to you during the session, I would like to audio record our interaction. I will later transcribe it and send it to you for verification, prior to data analysis.

If you'd like to participate in this study, your participation would involve [*insert methods type depending on participant group*] lasting about [*insert time depending on participant group and method*]. [*For Leadership/Students/Alumni*]: You must be a part of either [*insert program names*] to participate in this study.

Homegrown:

I will be on campus on [*Insert dates and timings*]. I am happy to schedule this at a time and place convenient for you. If none of these dates work for you, please feel free to suggest an alternative date and time.

Thank you for your time and consideration.

Best wishes,

Alizeh Batra
EdD Candidate, University of Bath, UK
Email: [redacted]
Mobile: [redacted]

Glocal:
I am happy to schedule this at a time and place convenient for you. Generally, I am on campus from 9:00 am onwards on weekdays.

Thank you for your time and consideration.

Best wishes,

Alizeh Batra
EdD Candidate, University of Bath, UK
Email: [redacted]

Reminder email

Dear [*Insert name*],

I hope this email finds you well. This is a reminder for our [*insert method type*] on [*insert date, time and location*]. I look forward to meeting you. Please let me know if there are any changes from your side. Once again, your participation is invaluable to the completion of this study and my degree, and to the advancement of employability research in the region.

Alizeh Batra
EdD Candidate, University of [redacted]
[redacted].com
Mobile: [redacted]

Appendix B: Interview questions

Interview questions: Programme leadership, faculty and curriculum committee members, career services' staff

1. What does the term graduate employability mean to you?
2. Can you tell me a little bit about your role as it relates to employability, especially how you interact with graduating seniors or fresh graduates?
3. Should employability be a strategic goal of a higher education institution? Is it a strategic goal of your department?
4. How does a liberal arts education impact (STEM) employability?
5. Are you accountable to accreditation or funding bodies on the employability outcomes of programs? If so, in what ways?
6. Does [*insert university name*] prepare graduates for the local or international workforce?
7. What sorts of challenges are present for graduates, higher education institutions, and industries where employment and employability are concerned?
8. What are the cultural/regional norms in finding jobs and how do they relate to the graduates in this study?
9. How do you think [*insert discipline names*] is affected by these trends, opportunities, and challenges?
10. What are some specific initiatives in your department for developing graduate employability?
    a. How do these initiatives contribute to developing employability? Why do you think these specific initiatives are important?
    b. How are these initiatives communicated to students or how are students engaged in them (which teams are involved, what are the communication strategies used, how do you gauge effectiveness)?
11. [*For career services staff only:*] Which are the two most and two least employable disciplines at [*insert institution name*]?

12. What is the relative importance of employability compared to subject knowledge and theoretical understanding in your programme?
13. How can higher education institutions and industries work together to develop graduate employability?
14. What is the extent and impact of employer involvement in course and program planning, design, teaching and assessment?
15. Do faculty involved in teaching employability-related content conceive it as part of, or external to, the university experience or curriculum?
16. Finally, do you think the employability initiatives at [*insert university name*] are effective for your programme? Why or why not? How could they be improved? What is your measure of effectiveness based on?

Interview questions: International education staff

1. What does the term graduate employability mean to you?
2. Can you tell me a little bit about your job role as it relates to employability, especially how you interact with graduating seniors or fresh graduates?
3. According to you, should employability be a strategic goal of a higher education institution? Is it a strategic goal of your department?
4. How does a liberal arts education impact (STEM) employability?
5. Are you accountable to accreditation or funding bodies on the employability of programs? If so, in what ways?
6. Does [*insert university name*] prepare graduates for the local or international workforce?
7. What sorts of challenges are present for graduates, higher education institution, and industries where employment and employability are concerned?
8. What are the cultural/regional norms in finding jobs and how do they relate to the graduates in this study?
9. Do you think [*insert discipline names*] are more or less affected by these trends, opportunities, and challenges?

10. What are some specific initiatives in your department for developing graduate employability?
    a. How do these initiatives contribute to developing employability? Why do you think these specific initiatives are important?
    b. How are these initiatives communicated to students or how are students engaged in them (which teams, communication strategies, how do you gauge effectiveness)?
11. How can higher education institution and industries work together to develop graduate employability?
12. Do faculty involved in teaching employability-related content conceive it as part of, or external to, the university experience or curriculum?
13. Finally, do you think the employability initiatives at [*insert university name*] are effective for your programme? Why or why not? How could they be improved? What is your measure of effectiveness based on?

Interview questions: Institutional research staff

1. What does the term graduate employability mean to you?
2. Can you tell me a little bit about your job role as it relates to employability? This could be in any form, including brainstorming, designing, evaluating related policies, keeping abreast of employment trends, liaising with related departments, and so on.
3. According to you, should employability be a strategic goal of a higher education institution?
4. How does a liberal arts education impact (STEM) employability?
5. According to you, what is the actual role higher education institutions play in developing individual employability?
6. What sorts of challenges are present for graduates, higher education institutions, and industries where employment and employability are concerned?

7. Do you think [*insert university name*] is more or less affected by these trends, opportunities, and challenges?
8. How can higher education institutions and industries work together to develop graduate employability?
9. Is employability a strategic function at [*insert university name*]?
10. Is there a demand for graduate employment or employability data from the university?
11. Which stakeholder data, related to graduate employment or employability, do you handle?
12. Do you deal with information related to curriculum planning, updating, and change? If so, does that lead into employability?
13. Do you think curriculum change, or embedding employability in formal or informal curriculum, can have implications for preparing graduates for the workforce? If so, in what ways do you visualise this?
14. How do you think institutional research departments can contribute to graduate employability at higher education institution?
15. In this capacity, is the data you handle mostly quantitative? If yes, do you see any value in using qualitative data? Where might such data come from? If no, what is the type of data you deal with? Institutional data is typically quantitative- What kind of value or challenges do you see in other types of data?
16. In your capacity as [*insert designation*], which departments do you liaise with related to graduate employment or employability?
17. What is the extent and impact of employer involvement in course and program planning, design, teaching and assessment?
18. Do you think the employability initiatives at [*insert university name*] are effective? Why or why not? How could they be improved? What is your measure of effectiveness based on?

Focus group questions: Graduating students

1. So you're all seniors, and will be looking for jobs soon. What does the term graduate employability mean to you?
2. Will you be looking locally only, internationally only, or both locally and internationally?
3. Can you tell me a little bit about your discipline of study and whether you think that is a more or less employable discipline relative to some others?
4. According to you, should employability be a strategic goal of a higher education institution
5. How does a liberal arts education impact (STEM) employability?
6. According to you, what is the role higher education institutions play in developing individual employability?
7. Does [*insert university name*] prepare graduates for the local or international workforce?
8. What sorts of challenges are present for graduates, higher education institutions, and industries where employment and employability are concerned?
    a. What are the cultural/regional norms in finding jobs and how do they relate to the graduates in this study?
    b. Do you think [*insert university name*] is more or less affected by these trends, opportunities, and challenges?
    c. Do you think [*insert discipline name*] is more or less affected by these trends, opportunities, and challenges?
9. What sorts of initiatives and resources were available to you for employability development?
    a. Were these initiatives mandatory or optional? Was the support consistent or focused on senior years?
    b. Which ones did you take part in? How did they help (or not help) you?
    c. Does the support for developing employability and finding employment come from your academic division/department, or from other

departments? Which departments are these and how do they contribute?

d. Do you think employability is embedded in, or is an essential part of, the strategic focus/vision of [*insert university* name]?
e. Do you think employability is embedded in, or is an essential part of, the curriculum/major at [*insert university* name]?
f. What is the relative importance of employability compared to subject knowledge and theoretical understanding at [*insert university name*]?
g. What is the extent and impact of employer involvement in course teaching and assessment, student motivation, and employability development?
h. Do faculty involved in teaching employability-related content conceive it as part of, or external to, the university experience or curriculum? Are they actively involved in developing employability? Are they willing and interested in it?

10. Finally, do you think the employability initiatives at [*insert university name*] are effective? Why or why not? How could they be improved? What is your measure of effectiveness based on?

Interview questions: Alumni

1. To begin with, can you tell me a little bit about your degree at [*insert university name*]- which years were you there? When did you graduate? What did you study?
2. Are you currently working? If so, where and in what capacity?
3. How long after graduation did you find a job? What was your first job (if not this one)?
4. Did you have several offers when you were looking for jobs?
5. Were you looking locally only, internationally only, or both locally and internationally?
6. What does the term graduate employability mean to you?

7. What sorts of challenges are present for graduates, regionally and internationally, where employment and employability are concerned?
8. What are the cultural/regional norms in finding jobs and how did they relate to your experience?
    a. Do you think [*insert university name*] is more or less affected by these trends, opportunities, and challenges?
    b. Do you think your ease (or difficulty) in finding a job had anything to do with how [*insert university name*] prepared you for the workforce?
    c. Did they have an employability curriculum?
    d. What was the relative importance of employability compared to subject knowledge and theoretical understanding?
    e. What was the extent and impact of employer involvement in the university experience?
    f. Did faculty perceive employability as an essential aspect of the curriculum, of teaching, of the university experience?
9. What sorts of resources, activities, and initiatives were available to you, that you think would have helped to develop your employability?
    a. Were these mandatory or optional? Was the support consistent or focused on senior years?
    b. Which ones did you take part in? How did they help (or not help) you?
    c. Did the support for developing employability and finding employment come from your academic division/department, or from other departments? Which departments were these and how did they contribute?
    d. Do you think employability was embedded in, or was an essential part of, the strategic focus of [*insert university* name]?
    e. Do you think employability was embedded in, or was an essential part of, the curriculum at [*insert university* name]?
    f. How did you find the curriculum, formal and informal, in terms of developing employability?

g. Do you think this was specific to your discipline of study or did it apply to all disciplines? For example, you may feel your friends from other disciplines had different experiences in job hunting.
h. How does a liberal arts education impact (STEM) employability?

10. How can higher education institutions and industries work together to develop graduate employability, keeping your discipline of study in mind?
11. Do you think the employability initiatives at [*insert university name*] were effective? Why or why not? How could they be improved? What is your measure of effectiveness based on? Did they prepare you sufficiently for the local job market, the international job market, or both?

Appendix C: Sample consent form

Topic of research
How employability skills are embedded and disseminated through the university experience and curriculum

Researcher information
Alizeh Batra
Doctor of Education (EdD) candidate, University of Bath, Bath, UK
Email: [redacted]
Contact number: [redacted]

Purpose of research
This research study is being conducted as part of the researcher's doctoral degree requirements, in order to fulfil the research enquiry stage. The findings of this study will be written up in the form of a 45000-word thesis. They may or may not be published in a journal at a later date.

This study aims to conduct a comparative analysis of two universities in the UAE, and how they embed and disseminate employability through the curriculum and university experience associated with two of their comparable programs. The participant groups from both universities include members of leadership and curriculum committees, career centre and institutional research staff, senior students, and alumni.

While there is a plethora of research around the importance of employability internationally, there is no known research study on this topic from the UAE, using the methods proposed below. Therefore, your participation is invaluable to the completion of this study and to the advancement of employability research in the region.

The two universities in the study have been purposefully selected as they have a similar focus on liberal education and comparable programmes. This study aims to explore how these stakeholders view the development of employability through the curriculum and undergraduate experience, and evaluate the effectiveness of formal and informal initiatives in preparing graduates for the local and international workforce.

Your participation in this study is completely voluntary and you may choose to stop participating at any time and for any reason. You may refuse to answer particular questions if you wish. Your decision to stop participating and/or your refusal to answer particular questions will have no implications for your relationship with the researcher, now or in the future. Should you wish to stop participating, please let the researcher know. All data associated with your participation will immediately be destroyed.

What you will be asked to do

The researcher will begin by asking generic questions about your role and involvement with employability initiatives at your university. They will then move on to ask you specific questions about your experience and thought processes surrounding these initiatives. Your responses will be audio-taped so that the researcher can have an engaging and meaningful conversation with you. The recording will later be transcribed by the researcher and sent to you for verification before the data analysis begins. Your participation is expected to last up to 30 minutes.

Risks and benefits

There are no known risks associated with participating in this study beyond those of everyday life. Your participation in, or withdrawal from, this study will not impact your employment at [insert university name]. Although participants will receive no direct benefits, it is hoped that you might engage and reflect on your own thought processes related to employability and preparation for the workforce. The researcher will share a short summary of findings with you, with the hope that they will help you in your interaction with employability initiatives.

Confidentiality and anonymity

Data will be collected, transcribed, analysed, and written up solely by the researcher. The only other people with access to the data will be the researcher's supervisors, mentioned below.

The researcher will retain your name and contact details in order to send you the transcription of your interview, so that you may verify the script. In the thesis, the researcher will use a pseudonym instead of your real name, where necessary. A brief description of the university and your role may be included, and identifying information will not be reported.

The data will be kept on a password-protected laptop and/or in locked drawers in the researcher's office or home, for a period of 5 years from the date the thesis is first submitted. It may or may not be published at a later date, but will adhere to the ethical principles outlined here.

Additional information

This study has been approved by the Department of Education at the University of Bath, UK. It conforms to the University of Bath's Ethical Implications for Research Activity (EIRA) and the British Educational Research Association's (BERA) ethical guidelines for educational research. The researcher is certified in conducting Social, Behavioural and Educational Research through the CITI Training for Human Subjects Research.

For more information, you may contact the researcher's supervisors:

Hugh Lauder
Professor, Department of Education
University of Bath, UK
Email: h.lauder@bath.ac.uk

Andrea Abbas
Professor, Department of Education
University of Bath, UK
Email: a.abbas@bath.ac.uk

Statement of Consent

My signature indicates that I have read the above information and that my questions have been answered. I understand that even after signing this form I may withdraw from the study at any time. I consent to participate in this study.

☐ By checking this box, I understand and consent to audio recording during my participation in this study.

Printed Name: _____
Signature: _____
Date: _____

Appendix D: Preliminary findings

Employability and the Liberal Arts: A Comparative Case Study of Two Higher Education Institutions in the UAE

Preliminary findings from doctoral thesis interviews

The traditional role of the university was perceived as a hub for knowledge-creation, teaching and research. Higher education was afforded primarily by the elite and seen a means of transmitting culture. Thus, the liberal arts or interdisciplinary subjects in arts and literature were seen to add cultural, social, and intellectual capital. Over time, and specifically with the advent of the human capital theory, workers' productivity started to be measured in terms of the quality rather than the quantity of work, or brain power over muscle power. Disciplinary and vocational knowledge took precedence as employability became a primary reason for enrolling in higher education. Students' first jobs upon graduation are now seen to be of utmost importance as they influence the trajectory of the rest of their careers. This is imperative in the knowledge-based economies of today, as technology makes several entry-level jobs redundant.

This is a comparative case study of employability at two liberal arts institutions in the United Arab Emirates. This study aims to explore how employability is conceived, embedded, and disseminated by the respective administrative offices and the leadership, faculty, students and alumni of the civil and computer engineering programs at each institution and portray a cohesive picture of employability at each institution. In particular, the liberal arts focus at these institutions adds a unique layer to the study of employability, since science- and technology-based disciplines are typically viewed as vocational subjects. This study was designed from a constructivist perspective and analyzed through a phenomenographic lens. In keeping with this, data was collected primarily through online, semi-structured interviews and the findings are examined using a combination of narrative and thematic analysis. In doing so, participant interviews were explained through a descriptive narrative of each participant group and, consequently, through a comparative, thematic analysis of the combined findings from both institutions.

Findings suggest that both institutions conceptualise employability differently, one with a traditional, conservative notion of employability embedded in employment, and the other with a more nuanced, contemporary one. However, both institutions seemed to follow holistic, identity-based models of employability development rather than a simplistic focus on skill development.

Communicating the meaning of a liberal arts education for engineering disciplines stems as a point of discussion for relevant stakeholders at both institutions, as students in particular were unsure of whether it added value to their degrees. Alumni, however, favored the liberal arts dimension, stating that it helped to develop systems thinking abilities and consequently, adapt to non-linear careers. Therefore, while it was seen to restrict the option to specialise in a particular field at the undergraduate level, the T-shaped curriculum was praised for creating well-rounded graduate identities.

Finally, structural forces in the local labor market such as hyper competition, mismatched graduation and hiring cycles, inorganic hiring models specific to this region, and economic and cultural factors, emerge as influential factors for graduate employability at the two institutions in question.

In conclusion, research on graduate employability is essential as the concept is both a public and a private matter involving several stakeholders, industries, and sectors worldwide. Our concern should be to open up and raise the quality of debate, to show that there are concepts and theoretical approaches that afford richer, more nuanced approaches to research than the currently dominant discussions admit. Moving forward, the global auction for jobs will, perhaps be best addressed by redefining the value of education as the core of competitiveness, especially for science and technology jobs as they evolve in a knowledge-driven economy.

Appendix E: Concept maps (online)

In order to access the concept maps illustrated in *Chapter 4. Findings: Homegrown* and *Chapter 5. Findings: Glocal*, click on or copy paste this link in your browser: https://drive.google.com/drive/folders/1kQ4Myvc25QT8Lr9pS2mCWqHNbvt0d2yV?usp=sharing

These concept maps are high resolution and can be zoomed into if necessary.

In order to access the other appendices online, click on or copy paste this link in your browser: https://drive.google.com/drive/folders/1b2CtFJhG9s64uSuGvl3QqGZ0GSSoEAnd?usp=sharing