

An Exploration of Change and Leadership in an Emerging Technological University

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Table of acronyms

AIT	Athlone Institute of Technology
ATU	Atlantic Technological University
CIT	Cork Institute of Technology
DCU	Dublin City University
DIT	Dublin Institute of Technology
DKIT	Dundalk Institute of Technology
DES	Department of Education and Skills
DFHERIS	Dept. of Further & Higher Education, Research, Innovation and Science
EU	European Union
GMIT	Galway-Mayo Institute of Technology
HEA	Higher Education Authority
HEI	Higher Education Institution
IADT	Dún Laoghaire Institute of Art, Design and Technology
IOT	Institute of Technology
IOTI	Institutes of Technology Ireland
ITB	Institute of Technology, Blanchardstown

IT Carlow	Institute of Technology, Carlow
IT Sligo	Institute of Technology, Sligo
IT Tallaght	Institute of Technology, Tallaght
IT Tralee	Institute of Technology, Tralee
LYIT	Letterkenny Institute of Technology
LIT	Limerick Institute of Technology
MTU	Munster Technological University
MU	Maynooth University
NAO	National Apprenticeship Office
NCEA	National Council for Educational Awards
NUIG	National University of Ireland Galway
OCAI	Organisational Culture Assessment Instrument
QQI	Quality and Qualifications Ireland
RGAM	Recurrent Grant Allocation Model
RTC	Regional Technical College
SETU	South East Technological University
STEM	Science, Technology, Engineering and Mathematics
STG	Sustainable Development Goal
TCD	Trinity College, Dublin
THEA	Technological Higher Education Association
TU	Technological University
TU Dublin	Technological University Dublin
TUS	Technological University of the Shannon
UCC	University College Cork
UCD	University College Dublin
UK	United Kingdom
UL	University of Limerick
US	United States
VEC	Vocational Education Committee
WIT	Waterford Institute of Technology

Abstract

The higher educational sector in Ireland is undergoing significant change due to the complexity of evolving multifaced roles and demands within a highly regulated environment where resources are limited. This is being compounded as institutes of technology merge to form new technological universities. Although effective leadership is required to successfully lead change initiatives, limited research on change leadership exists, especially for the higher educational sector.

The purpose of this mixed methods study is to explore stakeholder experiences and perceptions of change and leadership in an emerging Technological University (TU) in Ireland. The case study was guided by the following research question: 'How do stakeholders experience and value change leadership?' Linked to this overall research question are the following subquestions: (1) What are the main change drivers, cultural and contextual factors for change? (2) What are staff perceptions about change and leadership? (3) What are the challenges for change management and leadership? (4) What are the importance and presence of change leadership characteristics?

The study considers the important components of change leadership including context, culture, and change, while also synthesising change leadership characteristics from literature. Utilising complexity theory as a theoretical framework, relationships between these topics and complexity leadership are conceptualised. Through content analysis, focus groups with senior management, a survey with all staff and an interview with the president, this four-stage research approach highlights the importance of working within the context and dealing with challenges through change leadership. Furthermore, insights associated with the influence of context and the important of culture have been provided as well as considerations for leading change and leadership overall. New understandings of change and its dynamics as well as complexity are also revealed. This study has contributed to knowledge, policy and practice and has implications for future change leadership research, training, and development.

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Chapter 1 Introduction

1.1 Introduction

Like other countries, the Irish higher educational sector is experiencing significant change and disruption in an increasingly globalised and complex environment. The recent Covid-19 pandemic highlighted the need for higher educational institutes (HEIs) to be adaptable to change and the important role of leadership in dealing with uncertainty (Mukaram et al. 2021). However, the neoliberal policy landscape including the reduction of state funding, whilst promoting competition (Rasmussen, 2015) is leading to structural and institutional changes in the higher education sector (Howells et al. 2014). In Ireland, as Institutes of Technology (IOTs) merge to form new technological universities (TUs), many challenges are being faced as leaders deal with the complexity of change within their organisations.

Although existing literature on change and leadership in higher education is very limited, there is a shift away from the traditional top down, hierarchical approaches to leadership, which limits the sense of organisational complexity (Choi et al. 2011). While Jones et al. (2014) supports a blended approach including distributed and administrative leadership, many scholars are supporting a more collaborative, sustainable approach to leading their organisations (Fullan, 2006; Kinchin, 2023), where agility and innovation are facilitated (Whittaker and Montgomery, 2022). Through continuous improvement and adaptation, organisations can deal with their complex challenges (Fullan, 2006) and ongoing change. While Chow (2013) highlights that HEIs are complex, imperfect social organisations, cultural influences are also important for leadership and the performance of higher education (Tjeldvoll, 2011).

In this chapter, an overview of this study is provided. The broad context of this research is initially set out, introducing the multifaceted role of higher education. Neoliberal influences on leadership are also discussed and examples are given of current thinking in relation to change and leadership literature. The rationale of this study is subsequently presented and definitions of key topics in this study summarised. After the overall aims and objectives and

research questions are reviewed, the significance and structure of this study are outlined, followed by a conclusion.

1.2 Contextual overview

The European Commission recently launched a strategic framework concerning member states for European cooperation in education and training for 2021 to 2030 (European Commission, 2021). Through the development of European Union (EU) level tools, mutual learning, and exchange of good practices, the framework aims to ensure the personal, social, and professional fulfilment of all citizens, while promoting democracy, equality, social cohesion, active citizenship, and intercultural dialogue. It also aims to have sustainable economic prosperity, the green and digital transitions and employability (p.3). The breadth of aims outlined in this framework indicates the multi-faceted role higher education has within Europe, and the demands being placed on it.

To attract global talent, cooperating in education and training has become a key instrument for EU external policy implementation, based on European values, trust, and autonomy (European Commission, 2021, p.4). In addition to enhancing competencies in the education profession, and promoting the collaboration between HEIs, its ultimate target for tertiary level attainment is that at least 45% of 25–34-year-olds will have a third level qualification (European Commission, 2021). Ireland is exceeding this target and is performing extremely well in terms of educating its population with over 60% of its population between ages 25-34 having tertiary education, the highest out of all other members (Eurostat, 2023).

Within Ireland, total enrolments increased by 17.4% between 2014 and 2020 with over 245,600 enrolments in total in 2020/2021, the majority (69%) entering based on the leaving cert¹. With over 81,400 graduates in 2020, Dublin HEIs account for 39% of all graduates, South-West HEIs account for 15% and Mid-west account for 12% (HEA, 2021a). While the Irish state fund seven universities, five technological universities (TUs) and two Institutes of

¹ The leaving certificate is an Irish state exam used to help determine where a student can go to college.

Technology (IOT), the National Strategy for Higher Education to 2030 has been a strong catalyst for change, where most Institutes of Technology have merged to form five new TUs.

With new TUs come new opportunities of synergy to grow research and collaborative regional engagement. However, these new HEIs face many challenges. The TU Act 2018 identifies targets for 10 years after designation, which includes increasing research students from 4% to 7% as well as increasing academic staff with doctoral qualifications from 45% to 65%. To be enabled to achieve these and other objectives, various recommendations for investment in funding, planning and structures have been identified in the Technological University Research Network report (TURN, 2019). In addition, the recent OECD report (OECD, 2023a) highlights that the current academic structures may be impediments to growing research, engagement, and flexibility.

Globalisation has driven a competition for talent to fuel economic performance. However, Courtney et al. (2017) argue that globalisation is also a key vehicle for the internationalisation of neoliberal ideas (p.161). Harvey (2005, cited by Grummell et al., 2009 p.193) argues that the commercialisation of education came from neo-liberal politics, with reducing the cost of state expenditure as a key objective. While neoliberalism is characterised by tensions and contradictions, it can be defined as *'the agenda of economic and social transformation under the sign of the free market'* (Connell, 2013, p.100 cited in Courtney et al. 2017). Neoliberalism in this thesis is defined as a political ideology that promotes competition, while reducing government support and public expenditure. Financial pressures remain a prominent challenge for Irish HEIs to deal with and this suggests the strong presence of a neoliberal influence may be here to stay.

Many scholars have been critical of neo-liberal influenced change due to its negative effects on teaching and learning. For example, Courtney et al. (2017) argue that educational leaders are disconnected from teaching and learning due to their focus on organisational data and reform. Current criteria for promotion, which recognises research over teaching is also not helping improve teaching quality initiatives (Loxley et al. 2014 p.220). Furthermore, focus on public service, outreach and engagement activities may also become less important (Kliewer, 2019). Further, with growing student numbers and diverse prior educational

experiences, there is greater pressure on resources and Loxley et al. (2014) argue that teaching staff are not being provided with the resources to be able to deal with this diversity effectively. Finally, neoliberal influences and increasing state control supports more of a hierarchical, authoritative management of staff (Walsh, 2018). However, power dynamics can give rise to resistance of external controls to protect individual autonomy (Lumby, 2019). Therefore, higher educational leaders need to be aware of the broad neoliberal influences, power dynamics and tensions and the potential impact that they can have on higher education.

In the context of a broad remit and evolving performance frameworks, HEIs have multiple demands but limited resources. Despite this, literature on higher educational leadership is undeveloped and very limited (Esen et al., 2020; Gumus et al. 2018). While scholars have researched many different leadership models for higher education, distributed leadership was found to be the most frequent area of research (Gumus et al. 2018).

Other factors associated with leadership are important considerations. For example, the highly dynamic external environment of HEIs forces constant internal structural and cultural changes for institutions to simply survive or remain relevant (Phillips and Snodgrass, 2022, p.9). The strong influence of context argued by Fullan (2006) suggests that leaders need to think of organisations as systems that need continuous improvement and adaptation to face complex challenges, and that learning from experience at all levels is required, where deep learning is facilitated through collaborative cultures of inquiry and problem solving. Kinchin (2023) takes a systems perspective on higher education and leadership and advocates a more sustainable ecological model for higher education, rather than one that is neo-liberal focused. This new model perceives leaders '*as a bridge between different academic tribes*' (p.925), where relationship, trust and empathy are important, and leadership is a community activity rather than command and control leadership (Kinchin, 2023). This also resonates with a distributed leadership approach supported by Jones and Harvey (2017), which moves away from leader-centric, and offers value for supporting change in higher education. Although leaders who share power and empower staff by distributing leadership across their HEI, some argue that they are also increasing their own power by binding individuals to the giver of power (Lumby, 2019). Also supporting a more collective approach

to leadership, Whittaker and Montgomery (2022) adds that leadership should be value-based, where innovation, agility and sustainability are supported.

With increasing student numbers and diversity, there is added pressure on resources as well as growing requirements on HEIs to generate income, improve flexibility in models of delivery and deal with external demands to improve quality and standards (Loxley et al., 2014, p.216). Apart from rational approaches of change management in HEIs, which assumes organisational autonomy and leadership capacity to direct change, new theories perceive organisational change as something that is continuous, unpredictable, and emergent in nature (Doyle and Brady, 2018). This approach may align better to higher education, where its traditions, national context and internal complexity and open-ended nature of teaching and learning, are its core activities (Musselin, 2006; Whitley, 2008, cited by Doyle and Brady, 2018 p.306). As a result, Doyle and Brady (2018) argue that policy and management should focus on local interactions that bring about new ways of thinking and how people experience and lead change. They argue that educational leadership is anchored to the processes of change, which is diffused and distributed throughout the institution. This resonates with Kezar (2014) who supports incorporating social networks as a key analytical unit for future research in higher educational change.

Phillips and Snodgrass (2022) argue that based on literature on change leadership and organisational theory, those at senior-level leadership roles in HEIs are ideally placed to encourage, implement, and lead change initiatives. While leaders navigate internal and external power and reporting structures, they also navigate various cultures that impact the operational fluidity of HEIs at all levels (Phillips and Snodgrass, 2022, p.8). While change leadership provides a lens through which to examine how HEIs deal with multiple challenges and changes in a complex evolving environment, it has not received much focus from scholars to date. It is particularly pertinent in Ireland at a time when the higher educational sector is undergoing a transformation through the formation of new technological universities.

1.3 Rationale for study

Working as a project and programme manager in industry for 12 years provided me with a strong grounding and interest in leading change. Since entering the higher educational sector in 2006 and being a head of department since 2011, I have found that leading change in the public sector is quite different to the private sector and have witnessed the higher educational context increasing in complexity, with multiple demands and stretched resources. While I was equipped with a strong technical background, a masters in business administration and management experience from industry, I received no specific training to prepare me as a head of department and find it demanding to lead my large department of over 1000 students and approximately 50 staff through this complex, evolving environment.

Despite these challenges, by taking a collaborative, systems thinking approach over the years, I have grown the department and developed innovative programmes in collaboration with department staff, other departments, and external partners. Although project management expertise helped with linear, top-down related change, I found it insufficient to deal with implementing change in a complex social environment with conflicting demands, where consultation, collaboration and buy in are required. Therefore, this experience has led me to choosing the topics of change and leadership in higher education as the focus for this research, so that I can gain a better understanding of the context, cultures, and nature of change as well as the associated leadership required to facilitate and lead change initiatives within its context.

1.4 Definitions

Although multiple meanings may exist, the following are my definitions of the key topics contained within this study relating to change and leadership, which will be further elaborated on in later sections:

Change: Despite this study taking place during the merging process of a TU, it takes a broad interpretation of change and encompasses all scales and directions of change including planned and emergent changes (Van der Voet, 2014a). These changes can occur from the top down and the bottom up and are assumed to help organisations to react and adapt to

their environment for survival. While transformational change focuses only on significant systemic change (Watson and Watson, 2013) like the merging of institutions, the broader term of 'change' encompasses all types and scale of change including small and incremental changes.

Context: Context refers to the overall organisational environment, made up of both internal and external factors that affect and influence an organisation from a change perspective.

Culture: As a component of context, culture is an important factor in this study. While culture refers to values and assumptions that characterise organisations and their members (Cameron and Quinn, 2011, p.18), this study also uses the Organisational Culture Assessment Instrument (OCAI) based on the competing values framework (Cameron and Quinn, 2011) to assess the current and preferred culture of the organisation, with a focus on the leadership domain. The four competing values are market, clan, hierarchy, and adhocracy (section 3.3).

Change Management: This study uses change management as a general term for all approaches to planning, supporting, and implementing organisational change. Holten, Hancock and Bollinghoff (2019) argue that both change management and change leadership are needed to predict positive change experiences.

Change Leadership: Change leadership focuses on leadership behaviours or characteristics that are present during organisational change (Van der Voet, 2014a). It is relevant to both influential leaders and positional leaders and will encompass all types and dynamics of change and embraces change management approaches.

Distributed leadership: This term relates to how organisations share responsibility for leadership across its workforce. This approach can counteract the negative effects of managerialism and performance management (Jones and Harvey 2017; Waring, 2017) and helps utilise the capabilities of all staff.

Power: Although power is intrinsically linked to leadership, there is a "*puzzling absence of any mention of power in the vast majority of leadership scholarship*" (Firth and Carroll, 2017p 128; cited by Ladkin and Probert, 2021). However, power is an important

consideration in this study due to the neoliberal context of higher education, and the exploration of organisational change, leadership and culture. While Foucault's research on power resonates with my own perspective (Foucault, 1980; Ball and Olmedo, 2012; Ladkin and Probert, 2021), I will consider power as a structure of actions, bearing on the actions of those who are free (to choose their actions), and include historical, structural and cultural forces (Foucault, 1980, p220). Sources of power include knowledge, expertise, authority and resources (Arendt, 1970; cited by Lumby, 2019). Hence power is relevant to this study as it can be utilised and shared through leadership activities to help facilitate various types of change. Through leadership and culture, power dynamics can be created and strengthened to help enable change and reduce barriers. Distributed leadership can share power and empower staff. Where there is power, there is resistance and this can be used to promote self-care and counteract undesired power dynamics, e.g. negative neoliberal influences (Ball & Olmedo, 2012).

Stakeholders: Stakeholders relate to parties that have an influence over an organisation or can be impacted by organisational decisions. The focus of this research is on internal stakeholders of change and leadership within the emerging TU. This includes both academic and administrative staff of all levels.

Complexity theory: Complexity theorists argue that many forces are driving complexity, leading to greater interconnectivity and redistribution of power, facilitating people to drive change in new ways (Uhl-Bien and Arena, 2018). Rosenhead et al. (2019) states that complexity theory is a developing field that evolved from holism and systems theory. Complexity theory is the theoretical framework used in this study.

Complexity leadership: Derived initially from complexity theory by Uhl-Bien, Marion and McKevley (2007), complexity leadership was developed further by Uhl-Bien and Arena (2018) who argue that there are three components of complexity leadership needed for organisational adaptability, which include operational leadership, entrepreneurial leadership and enabling leadership.

1.5 Aims and objectives of study

This mixed methods research explores change and leadership in an emerging TU so that key insights can be discovered. While this research was carried out during Covid-19, these insights will contribute to our understanding of how HEIs deal with change within their complex contexts.

Ultimately, this study takes a systems thinking, holistic approach to the emerging TU by exploring its overall context and culture as well as staff perceptions on change and leadership and associated challenges. This creates a suitable foundation to further explore change leadership characteristics and their perceived importance and presence within the TU. The primary aim of this study is to explore how stakeholders experience and value change leadership, with the following objectives:

- To examine the key factors relating to change and leadership
- To gain insights into these factors through exploring their interrelationships.
- To identify challenges associated with leading change.
- To formulate recommendations on how these challenges can be addressed.

The scope of this study can be understood through the conceptual framework developed for this study, which incorporates the competing values framework (Cameron and Quinn, 2011), change leadership characteristics, and complexity leadership (Uhl-Bien et al., 2007) as well as their interrelationships with context and culture (section 3.6).

1.6 Research questions

The primary research question emerged from my prior experience of managing and leading change in both industry and academia. As my knowledge developed throughout my doctoral studies, the research question evolved as my conceptual understanding deepened. The primary research question is 'How do stakeholders experience and value change leadership?'

Through reflection and inquiry, the following four subquestions were developed that are linked to the primary question:

Q1: What are the main change drivers, cultural and contextual factors for change? This question explores the overall context for the emerging TU, both from an internal and external perspective so that a full understanding of the key environmental factors for change are understood.

Q2: What are staff perceptions about change and leadership? This question focuses on all staff within the TU and their perceptions about change and leadership, and provides important insights into staff perceptions, which complement the contextual analysis in question one.

Q3: What are the challenges for change management and leadership? Building on the contextual insights from question one and two, this question explores the challenges associated with change management and leadership within the emerging TU.

Q4: What are the importance and presence of change leadership characteristics? This final subquestion examines staff perceptions of change leadership characteristics to determine their importance and presence within the TU.

1.7 Significance of study

This study is important for several reasons. Given the significant changes currently underway in Ireland, where TUs are currently being established, this study is timely and aims to develop an appreciation for change and leadership in this higher educational context. Despite the multiple challenges facing higher education, research on higher education leadership is still its early stage of development (Esen et al, 2020; Gumus et al., 2018). Doyle and Brady (2018) argue that educational leadership is closely linked to the processes of change. Although Fullan (2020) created a change leadership framework for leading complex change, no literature on change leadership was found specifically for higher education in this study.

Building on personal practice experience and recent literature, this mixed methods study takes a systems perspective on higher education to explore the area of change and leadership and how organisations can survive in an increasingly globalised and competitive environment. Taking a pragmatic perspective, this study's conceptual framework is

developed to explore the interrelationships between change and leadership in higher education, while considering the influence of context, culture, complexity leadership and change leadership. While the literature review of this thesis identifies the key components relevant to the change leadership framework used to conceptualise findings, the refined framework outlined in the discussion chapter makes an important contribution due to its potential use for understanding and developing change leadership in other organisations and for future research.

Currently the topics in this study are fragmented in literature which limits understanding of their interrelationships. While this study aims to contribute to a deeper understanding of this area and create a foundation for future researchers to build upon, it will also inform future training and development for current and future leaders in higher education.

1.8 Structure of study

This study is made up of six chapters:

Chapter one offers a brief introduction and contextual overview for the study, followed by an outline of the rationale, definitions and aims and objectives. The research questions and significance of this study are also presented, and the structure of the thesis summarised.

Chapter two provides a review of the context and policy landscape, initiating with an introduction to the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS) as well as the Higher Education Authority (HEA) and Qualifications and Quality Ireland (QQI). The emergence of technological universities is then examined through a brief review of the National Strategy for Higher Education to 2030 and the development of the Technological Universities Act 2018. Recommendations of significant investment and academic structures are outlined in the Technological University Research Network (TURN) report (2019) and the OECD report (2023a). Gender disparity policy and performance frameworks are other key influences discussed that are driving change in higher education. A brief overview of leadership, management and governance is given, followed by an initial review of the challenges facing HEIs.

Chapter three begins with a systematic literature review relating to change and leadership in higher education. Given the lack of literature in this specialised field, further literature was reviewed to get a broader and deeper appreciation for literature in related topics of culture, change, change management and change leadership. Overall gaps in literature are assessed and insights from the use of complexity theory and complexity leadership are outlined. This chapter concludes with an overview of the conceptual framework for this study which incorporates key concepts for this study.

Chapter four presents the research design used for this study and discusses the philosophical perspectives and research methods. Positionality is also assessed for this study, which takes a pragmatic philosophic paradigm using mixed methods. Sample selection and data collection are then outlined. After reviewing data analysis approaches, validity, reliability, and ethical considerations are then discussed.

Chapter five presents the findings of this study. An overview of research participants and their demographics are provided followed by a qualitative review of the Technological University submission document, focusing on word frequency and themes. The chapter is structured around research questions whereby findings associated with all four research questions are subsequently utilised to answer the primary research question of how stakeholders experience and value change leadership.

Drawing from findings presented in Chapter five, Chapter six reflects upon the key findings. By examining the findings through the lens of the conceptual framework, new insights are presented followed by a review of the overall contribution of this research from a knowledge, policy, and practice perspective.

In the final chapter, Chapter seven, the contribution of this study to new knowledge, policy and practice is reviewed and personal research reflections are offered. Study limitations are then outlined and recommendations for future research are presented, followed by a conclusion.

1.9 Conclusion

The Irish higher educational sector is strongly influenced by policy, both nationally and internationally at EU level, where neoliberal influences are increasing due to globalisation. With the recent Covid-19 pandemic and the current transformation of the Irish higher educational system through the creation of technological universities, change in higher education has never been so prevalent. Given the significant economic and social role placed upon higher education at a policy level, effective leadership is required to effectively navigate HEIs through many challenges.

Leaders need to be prepared for change and are well positioned to facilitate and lead initiatives. However, there is a lack of research available to inform scholars and practitioners about change leadership. Fresh thinking is required to enable HEIs achieve their potential where leaders have an oversight of their context and enable their organisations to adapt to survive. Recent leadership literature supports a collaborative approach, based on trust and relationships, where social networks and culture are important, and agility and innovation promoted.

This chapter outlined the purpose of this study and presented an introduction to the higher educational context and challenges, as well as related factors of change and leadership. The study aims, objectives and significance of this research are then discussed, followed by an outline of the thesis structure. Using complexity theory as a theoretical lens, the conceptual framework developed for this research integrates key topics of context, culture, change and change leadership. It is hoped that through this research, scholars and practitioners can be better informed about change leadership to aid future research and enhance future leadership training and development initiatives.

The following chapter will review the context and key policies that influence the higher educational sector in Ireland. Insights into the emergence of TUs, as well as leadership, management, and governance issues and associated challenges will also be presented.

Chapter 2 Irish higher education context

This chapter will outline the context of the Irish higher educational landscape in which this study is based and provide some insights into the emergence of technological universities as well as national key policies driving change. The latter part of this chapter offers some insights into leadership, management, and governance, and introduces some of the challenges within the sector.

2.1 Overview of Irish higher educational institutes

While there are many private and independent higher education colleges in Ireland including Griffith College, Hibernia and Dublin Business School, the Irish state fund seven universities, five technological universities (TUs) and two Institutes of Technology (IOT). The first university in Ireland was Trinity College Dublin established in 1592, while the Universities Act of 1908 led to the establishment of University College Dublin, University College Cork, and University College Galway (OECD, 2006). More recently, the University of Limerick was formed in 1972, Dublin City University in 1975 and Maynooth University in 1997.

In the mid-sixties, two major reviews of higher education took place, which was the Commission on Higher Education and the Steering Committee on Technical Education. While these reviews highlighted the importance of higher education for Ireland's plans for socio-economic growth and development, they established a strong binary system where universities were to be expanded and the non-university sector was to be built up (OECD, 2006). In the 1970s, Regional Technical Colleges (RTCs) were created across the country to expand the higher educational system on a regional basis. Together with Dublin Institute of Technology (DIT), they offered a more vocational focus of education and training when compared to existing universities (Thorn, 2018; OECD, 2006). Through the Institutes of Technology Act of 2007, the RTCs were redesignated to IOTs, to expand their provision.

Currently the Irish higher educational landscape is undergoing a significant transformation because of mergers between HEIs, mainly driven by national policy. The National Strategy for Higher Education to 2030 (DES, 2011) has acted as a catalyst for this transformation,

which involved most IOTs merging to form Technological Universities (TUs) and further consolidation of teaching colleges such as the Mater Dei Institute of Education and Saint Patrick's College (incorporated into DCU). While HEIs must evolve and adapt to achieve their objectives in a complex and interconnected world with rapid technological, cultural, economic, and demographic change (European Education Area, 2023), rationalisation and financial concerns were also likely to be a major driver of such legislation.

Table 2.1 below, details how five TUs were created between 2019 and 2022, marking a significant change to the higher educational sector in Ireland which accounted for approximately 100,000 students. The first was TU Dublin on the 1st January 2019 through the merger of DIT, ITB and ITT Dublin, followed by Munster TU in January 2021 from merging CIT and IT Tralee. In October 2021, TU of the Shannon: Midlands Midwest (TUS) was formed through the merging of LIT and AIT. April 2022 marked the formation of Atlantic TU (ATU) through the merger of IT Sligo, GMIT and LIT. Finally, the Southeast TU was established in May 2022 through the merging of WIT and ITC. Overall, this marked a significant reduction in HEIs over a three-year period and transformed twelve IOTs into five TUs. Dundalk IT (DKIT) and the Institute of Art, Design and Technology (IADT) are currently the only two remaining original IOTs not on a TU trajectory.

Table 2.1: Overview of TU amalgamation

Name	Abbreviation	Established	Technological University	TU amalgamation date
Athlone Institute of Technology	AIT	1970	TUS: Midlands Midwest	2021
Institute of Technology, Blanchardstown	ITB	2000	TU Dublin	2019
Institute of Technology, Carlow	ITC	1970	South East Technological University	2022
Cork Institute of Technology	CIT	1974	Munster TU	2021
Dublin Institute of Technology†	DIT	1992	TU Dublin	2019
Dundalk Institute of Technology	DkIT	1970		
Dún Laoghaire Institute of Art, Design and Technology	IADT	1997		
Galway-Mayo Institute of Technology	GMIT	1972	Atlantic Technological University	2022
Letterkenny Institute of Technology	LYIT	1971	Atlantic Technological University	2022
Limerick Institute of Technology*	LIT	1997	TUS: Midlands Midwest	2021
Institute of Technology, Sligo	ITS	1970	Atlantic Technological University	2022
Institute of Technology, Tallaght	ITT Dublin	1992	TU Dublin	2019
Institute of Technology, Tralee	IT Tralee	1977	Munster TU	2021
Waterford Institute of Technology	WIT	1970	South East Technological University	2022

While the provision of full-time education is mainly funded by the state, and total part time enrolments are estimated at 21%, Clancy (2015) highlighted the significant growth of the Irish HE sector over the last number of decades, where total enrolments for full time and part time programmes went from over 26,000 in 1969 to over 200,000 in 2009 (seven-fold increase). Currently enrolment figures for 2020 is 245,600 with international enrolments

across Irish HEIs at over 25,000, mostly non-EU related. (HEA, 2021a, 2021b). A big enabler of this growth was the creation of RTCs which later became IOTs. In fact, Ireland's level of higher education attainment is among the highest in Europe where unemployment levels are inversely proportional to education and increasing levels of graduates progress to further study, where currently 40% are estimated to have a post graduate qualification (Clancy, 2015).

While IOTs and TUs have a broad mandate to provide education from Level 6 to Level 10 on the National Framework of Qualifications (NFQ), traditional universities have a more focused band from Level 8 to 10 (HEA, 2021b). With the highest non-progression rate of students being on level 7 programmes at 31%, followed by Level 6 at 25% and Level 8 at 14% (HEA, 2021a), the emerging TUs will have to continue to deal with innovative ways of improving student retention, which is less a concern for traditional universities. With shifting demographics towards higher level qualifications, honours degree enrolments (Level 8) accounted for 61% of total enrolments in 2020/21, and taught masters were the second largest group at 11%. This indicates TUs will have a challenge to maintain viable Level 6 and Level 7 offerings. From a field of study perspective across Ireland, the last 50 years has shown a rise in social sciences and a relative decline in the humanities (Clancy, 2015). Other trends are less obvious. The largest field at present is Business Administration and Law at 22% of enrolments followed by Health and Welfare at over 17%, then Arts and Humanities at almost 14% (HEA, 2021b).

In the context of a severe recession in Ireland, state investment declined by 38% between 2009 and 2016, while student numbers increased by 34,000 and per capita funding reduced 22% over a seven-year period (Walsh, 2018). Furthermore, while student: staff ratios increased from 16:1 to 20:1 by 2015, Walsh (2018) highlighted that capital funding declined from €202 million in 2009 to €87 million six years later. A HEA report (2016) identified significant financial issues and sustainability concerns with 11 of the 26 HEA funded institutions in deficit in 2014-2015 (Walsh, 2018). While the proportion of GDP assigned to education is 5.1% on average for OECD countries, Ireland has the lowest spend at 3.2% (OECD, 2023b), and significant challenges remain for many HEIs from a financial perspective, which may hamper TU development.

While the Irish Higher Education sector spends €2.6 billion every year, employs over 23,000 people, and has €8 billion of an asset base, 68% of institutional funding comes from public sources and the rest from private sources, such as student fees (DES, 2015). Total grants paid to Irish HEIs in 2021 amounted to over €1.87 billion, up from €1.65 billion in 2020. The TU and IOT sector make up less than half of this spend at approx. €900m. The largest component of overall spend was the recurrent grant at €1.29 billion which normally covers regular HEI operational costs, followed by pension related superannuation (€211m) and then Skills grants associated with Apprenticeship, Springboard and Human Capital Initiative projects (€175m) and capital grants of €74m. Research was granted €65m overall, with traditional universities getting the lions share at over€54m (HEA, 2021b). This spend profile highlights the large recurring operational costs for HE provision in Ireland.

With significant investment available in skills, The HEA are prioritising this area for HEIs and enabling them to focus resources on addressing the skills needed to support and grow the economy through innovation in teaching and learning. While traditional universities only got €46 of the €175m spend on skills in 2020, this indicates the significant role TUs, IOTs and other HEIs have in this area, and their direct importance to the economy. Another point to note is apart from UL, traditional universities are not involved in apprenticeship provision which is a growing area of strategic development through the creation of new consortium led models. Indeed, apprenticeship modes of delivery could be a way for TUs to improve retention and viability of their Level 6 and Level 7 mandate.

With 69% of new entrants to third level in 2020/21 was based on the leaving certificate exam (HEA, 2021a), these full-time students face a contribution fee in the region of €3,000 per annum. Although there is an increasing trend globally towards private funding, students in Ireland don't have a student loan scheme. However, through a recent options paper there are indications that this fee will be cut or that the Student Universal Support Grant (SUSI) that almost 40% of students receive will be improved (Irish Times, 2023).

While recommendations were made to further increase public investment in research (OECD, 2006), Clancy (2015) argues that it now occupies a central role, and following a similar path to other countries, where research is viewed primarily as a contributor to

economic development. However, because of the severe economic recession and consequential fiscal constraints, basic support for research has been limited where prioritisation is emphasised based on direct relevance to economic growth (Clancy, 2015). This view is also supported by looking at the recent data from the HEA (HEA, 2021b) where skills grants are almost three times that of research grants. While historical focus from IOTs was on applied research (OECD, 2006), it is important for the newly formed TUs to maintain this focus as they leverage their larger scale.

2.2 External stakeholders in higher education

While this study is set in the overall Irish educational system, it focuses on the emergence of one TU arising from the merging of three IOTs. Although there are multiple stakeholders with an interest in higher education that have various forms of relationships with HEIs, this section will examine the stakeholders external to the emerging TU itself that have more formal relationships.

The responsibility for higher education was taken from the Department of Education (DES) in August 2020 with the establishment of the Department of Further and Higher Education, Research, Innovation and Science (DFHERIS). This new department funds the higher and further education and research sectors, creates policy as well as oversees state agencies and public institutions, with the main objective of supporting Ireland's social and economic development, through creating opportunities for everyone (DFHERIS, 2023a). DFHERIS fund HEIs on an annual basis through the Higher Education Authority who allocate this funding. In addition to operational funding, the HEA provide other strategic focused funds such as the Technological Universities Transformation Fund (TUTF) capital programmes, the National Forum for the Enhancement of Teaching and Learning in Higher Education (HEA, 2021b) and other funding initiatives to support equality, access, and internationalisation.

The HEA was established through the Higher Education Authority Act in 1971 to further the development of the HE sector through coordinating state investment, promoting value of higher education and research, reviewing demand, promoting equality and the use of the Irish language (Thorn, 2018). The influence of the HEA has increased as it changed from having an incremental budget system to a formula-based system where the core grant is

based on various metrics such as student enrolments, programme levels and types, while 10% of this budget is allocated based on the performance of HEIs on delivering national objectives (Thorn, 2018). The Higher Education Authority Act 2022 plans to reform the higher education sector and modernise the role of the HEA and includes legislation for these performance agreements with HEIs. This Act addresses previous recommendations from the OECD (2006) of reducing governing authorities to improve effectiveness. The Act also strengthens the role of the HEA and legislates for performance agreements with designated HEIs for a period of not more than five years. Performance agreements would take account of the strategic plan of the HEI and include performance objectives as well as the implementation, monitoring, assessment, and reporting processes (p.34). As the HEA are the main funding conduit for HEIs in Ireland, they are a key stakeholder, especially in the context of financial constraints.

Established in 2013 under the Further Education and Training Act, as an agency of the Department of Further and Higher Education, Research, Innovation and Science, Solas is guided by the National Further Education and Training (FET) Strategy (DFHERIS, 2020). Central to this strategy are three core pillars of building skills, fostering inclusion, and facilitating pathways. Solas work with regional skills managers, education partners and training boards across Ireland to manager programmes, including apprenticeships and traineeships (Solas, 2023).

The National Apprenticeship Office (NAO) was set up in January 2022 jointly by Solas and the Higher Education Authority to implement the Action Plan for Apprenticeship 2021-2025 (NAO, 2023). This action plan calls for significant growth in the range and type of apprenticeships in Ireland. While current apprenticeships mainly reside in IOTs/ emerging TUs, this is a significant development for them and could potentially enable innovation in programme delivery across all levels. Having led the development of Ireland's civil engineering apprenticeship and starting on another profession, I think these initiatives are strategically important to TUs as they carve out national influence over such offerings. Liaising with all stakeholders of apprenticeships and being advised by the National Apprenticeship Alliance, the NAO are responsible for the expansion of the apprenticeship

system in Ireland and for the maintenance of a national register of companies approved to take on apprentices as well as a register for apprentices (NAO, 2023).

Within the Higher Education Authority (HEA) 2018-2022 strategic plan (HEA, 2018a), the HEA reference the 'New Higher Education Apprenticeship Group' (p.28) as a flagship initiative to deliver increased apprenticeship enrolments by 2020, through working with institutions and participation in the National Apprenticeship Council (now called National Apprenticeship Alliance). This new strategic focus from the HEA is complemented by the Action Plan for Apprenticeship 2021-2025 (DFHERIS, 2021), with the objective to grow apprenticeship registrations to over 10,000 new registrations per year. Apprentices are offered a work-based learning opportunity, which delivers pathways to internationally recognised qualifications that are industry driven, while they earn money. With significant financial investment being put into apprenticeships, these skills are required to support growth and productivity and address policy objectives within the National Skills Strategy, Project Ireland 2040, and the National Development Plan 2018-2027 (DFHERIS, 2021). With a background in traditional craft apprenticeships, the new TUs are heavily involved in many new apprenticeship programmes through this industry led consortium model and interact with the National Apprenticeship Office and other stakeholders for their development and delivery.

Another key stakeholder is Quality and Qualifications Ireland (QQI). Established under the Qualifications and Quality Assurance (Education and Training) Act 2012, QQI is a statutory body that got an expanded role and remit from the Qualifications and Quality Assurance (Amendment) Act of 2019 to grant delegated authority to masters qualifications for IOTs. Its current Statement of Strategy 2022-2024 calls out strategic priorities to provide better information and opportunities for learners, protect learners through strengthened regulation, drive provider development and publish analysis and insights (QQI, 2022). As the primary educational quality assurance in Ireland, QQI are a key stakeholder for HEIs.

Having reviewed the key external stakeholders in higher education, we get an appreciation for the environment that HEIs are placed within. With multiple stakeholders controlling

funding, influencing change and regulation, HEIs have a complex, dynamic landscape to interact with.

2.3 Emergence of technological universities

Walsh (2018) highlighted that much tighter control was put in place for the management of the non-university institutions, where RTCs were under the authority of Vocational Education Committees (VEC), who appointed their board of management but were also subject to the Department of Education control. The National Council for Educational Awards (NCEA) was set up to establish standards and become an awarding body for these new HEIs (Clancy, 2015). Clancy highlighted that in the 1980s, while awards were expanded from certificates and diplomas to include degrees, the council also supported masters' qualifications as well as the first PhD award, which was granted in 1990.

To enable further development of the RTCs, the Regional Technical Colleges Act was passed in 1992, diluting the control of VECs, and following a HEA committee review, RTCs were renamed to Institutes of Technology (Thorn, 2018). Through the Qualifications (Education and Training) Act, 1999, delegated authority to make awards to level 8 was put in place. While fees were abolished for higher education in the 1990s, the Irish government were unsure of the sustainability of the financial model in place and requested the OECD to carry out a broad review of higher education, including its role, strategy, research investment and financing (Thorn, 2018). According to Sheehan (2005), the examiners report made 52 recommendations, with central recommendations around preserving the binary structure of HEIs and releasing IOTs from restrictive management by the Department of Education. It also suggested revamping a formula-based funding scheme, rationalising research funding bodies, re-introducing tuition fees for undergraduate programmes and various recommendations on the strategic planning framework (Sheehan, 2005). Some controversial recommendations were also made such as restricting PhD awarding powers to the university sector (except for DIT), even though the OECD supported parity of esteem (Thorn, 2018). As a result of the OECD (2004) recommendations, the Institutes of Technology Act (2006) was passed, which transferred the IOTs from the Department of Education and Skills to the HEA (Thorn, 2018). Although some individual IOTs submitted a

request to become designated as a university, these requests did not progress any further until sufficient legislation was established to define the required criteria and process.

National Strategy for Higher Education to 2030

In January 2011, the National Strategy for Higher Education (DES, 2011) was published, framed against a range of challenges facing higher education, including a doubling of capacity over the coming twenty years and more diverse learning needs, all of which will require innovation and flexibility, in a more competitive globalised environment (DES, 2011). This strategy, commonly referred to as the Hunt Report, named after Colin Hunt, chair of the strategy group, identified extensive recommendations under the headings of teaching and learning, research, engagement, internationalisation, governance, coherent framework, sustainable and equitable funding model.

However, Walsh (2018) pointed out that Hunt came from the corporate and banking sector and had no experience in higher education previously, and that only four of the 15 members of the strategy group were academics. Walsh (2018) argues that this may have led to almost exclusively economic challenges for HEIs, resulting in the role and purpose of higher education being shaped by overcoming the economic crisis and managerialism discourse mediated through the OECD. Furthermore, Walsh and Loxley (2014) suggested that the Hunt report was not a plan for radical transformation, but instead a '*synthesis of existing policies*' (p1128), including the OECD report (2004). Furthermore, Walsh (2018) suggested it lacked the depth of research and analysis that was present in previous HE reviews.

However, within the strategy regarding a 'coherent framework,' which alluded to the opportunity to create new TUs, the recommendation stated, '*The institute of technology sector should commence a process of evolution and consolidation; amalgamated institutions reaching the appropriate scale and capacity could potentially be re-designated*' (DES, 2011, p.23). When compared to existing universities, the strategy distinguishes technological universities as institutes that focus on career-focused education from level 6 to 8, coupled with industry focused research and innovation (Clancy, 2015). The report also called out the importance of Level 6 and 7 courses to long term societal needs and that any loss in this regard would be detrimental (DES, 2011). Notwithstanding the various shortcomings

previously discussed, this strategy created the foundation for future TU legislation, namely the Technological Universities Act, in 2018.

Development of Technological Universities Act

While the OECD (2004) report and the Hunt report heavily influenced the shaping of the Technologies University Act of 2018, so too did the report on criteria for TU designation (Marginson, 2011), the 2012 HEA report 'Towards a Future Higher Education Landscape (HEA, 2012) and a report chaired by Peter Cassells (Expert Group on Future Funding for Higher Education, 2016).

While the Hunt report does not clearly specify the first stage evaluation for potential TU designation, Marginson (2011) argues that there should not be a political hurdle before being assessed on an application's merits. In addition, Marginson warns that the stage two process is essentially international benchmarking and that a national process that allows for applications to be assessed objectively is required, with clear criteria. In addition to TUs being fully accepted as universities with parity of esteem as existing ones, Marginson also argues that a TU sector should be better than existing IOTs by being modernised to meet regional, national and international challenges (Marginson, 2011).

This modernisation is developed further by Cassells (Expert group on Future Funding for Higher Education, 2016) in the report titled 'Investing in National Ambition: a Strategy for Funding Higher Education.' This report engaged in three phases of work looking initially at the value and role of higher education, then efficiency and organisation followed by the funding system. Although the use of technology can improve quality, increase accessibility and improve retention, Cassells argues that it is not a quick fix to the funding problem (p11). While Cassells completed a full assessment of financial needs, he outlines significant deficits in funding when compared to similar countries and argues that the HE sector would require €600m by 2021 and €1 billion by 2030. In addition, the expert group highlighted the importance of a system of performance management for making a new funding model effective in meeting its goals.

Building on the Hunt report strategic objectives, the HEA (2012) report set out implementation objectives in terms of the HE system structure over a period of 5 years approximately. This report highlighted significant challenges in terms of PhD output and a *'crowded and unstructured landscape...with a fragmentation of offerings'* (p3). While the Landscape document included specific TU designation criteria as well as criteria for establishing regional clusters, HEIs were invited to submit strategic plans within 6 months of its publication, to propose their future direction.

Several years after the Hunt report, key legislation was put in place to enable IOTs merge and become TUs as they met the strict criteria. The Technological Universities Act 2018 which was informed by the previous reports discussed, details the functions of TUs and their governance and structures. The eligibility criteria to become a TU involved two or more institutes jointly applying, complete with plans for managing academic, financial, and administrative matters. Although having a minimum of two institutes may seem like a crude stipulation, it does help address the fragmented nature of Irish HEIs identified by the OECD (2006). The Act outlines criteria on student profiles and plans to increase research students from 4% to 7% within 10 years of TU designation. In addition, at least 45% of full-time academic staff require a doctoral degree and this needs to increase to 65% within 10 years also. While these metrics will help strengthen Ireland's research output and capabilities, it will put additional strain on HEIs that still may have to recover from severe resource constraints. In addition, having evolved from being RTCs responsible solely for technical training, TUs have a broader remit across levels 6 to 10 of the Irish Qualifications Framework (OECD, 2023a).

This legislation was a key enabler for TU applications and soon after, TU Dublin was established in January 2019 followed by MTU, TUS, ATU and SETU between 2020 and 2023. This left just two of the original IOTs outside of the TU development process, DKIT and IADT. However, much work and investment are required to facilitate new TUs in delivering their mandate and various recommendations emerged to map out key investment and development opportunities of TUs. Following the formation of TU Dublin, the first set of recommendations emerged from the Technological University Research Network (TURN)

working group who highlighted the significant investment and supports required to enable TUs to develop.

Technological University Research Network (TURN)

The Department of Education and Skills established the time limited Technological University Research Network (TURN) working group to examine and report on how TUs could achieve their sectoral and national objectives and identify the required supports (DES, 2019). Their report in 2019 highlighted many key recommendations (DES, 2019, p.34-37) relating to funding, planning and structures that need to be implemented to enable TUs to achieve their mandate as follows:

1. Funding should be made available for integrated digital infrastructure to achieve efficiencies.
2. Capital investment in TUs should be prioritised where TUs remain exclusively dependent on state funding, while a borrowing framework is being explored for TUs.
3. Increase funding to develop research human capital and enhance research capacity of TUs.
4. TUs should adapt and implement the researcher career development and employment framework previously developed.
5. Education and research infrastructure in TUs to be addressed so that quality standards are met.
6. Each TU should prepare and publicise its research development strategy to highlight objectives and targets.
7. Develop an appropriate career structure to align to the distinctiveness of TUs and balance enhanced teaching and learning and research development.
8. The Department of Education and Skills and the HEA should assist TUs in the implementation of these career structures having regard to government staffing and pay policies.
9. Funding arrangements of the HEA should be reconfigured so that a dedicated stream of funding is made available to support the development and organisational change management of TUs.

10. A borrowing framework should be agreed and put in place for TUs.
11. Examine options for the future operation of the grant allocation model.
12. Further work by all stakeholders will be required to implement the previous recommendations in a coherent and effective way accompanied by robust, evident based arrangements.

The implementation of these 12 recommendations needs to be considered for the emerging TUs, so that the full integration of IOTs can be facilitated, and arrangements put in place to enable them to develop their capabilities and grow research. This is particularly important, given the growing student numbers is putting greater pressure on resources (Loxley et al. (2014) previously discussed. In relation to recommendation four and seven, to develop an appropriate career structure and balance enhanced teaching and learning and research development, the OECD reviewed this issue and provided benchmarking data for consideration, which will now be discussed.

OECD Report on academic structures for TUs and emergence of THEA

In preparation for the evolution of academic structures within TUs, the HEA and DFHEIS requested the OECD to review TU academic career paths, contracts, and organisation by benchmarking other comparable HEIs within the OECD countries. This report published at the end of 2022, argues that TUs cannot achieve the expectations set out in the TU Act 2018 with an employment model developed over five decades ago for RTCs, where the current academic career structure, the organisation of academic work, and the management and leadership structures are impediments to expanded research, engagement, and offering wider flexible learning (OECD, 2023a, p.2). Although lecturing staff typically have specific hours per annum of teaching, the report highlights that there is no defined obligations in relation to engagement or research activities. In fact, it argues that existing career structures also separate teaching, research, and academic leadership depriving TUs of the beneficial synergies.

Overall, the OECD team advised that the career model, academic contract, and capacities of the departments and faculties should be substantially revised, and the academic management and leadership capabilities re-examined. Contrary to existing practice in

Ireland, the OECD report identified that most benchmarked institutions have Heads of Department who manage staff and programmes with limited financial delegations, and they are freed up from strategic planning and financial and capital planning by the heads of faculties/ schools. Furthermore, they highlight that for TU academic staff to operate effectively in a department management role, the span of control should be appropriate and manageable, adequate management support provided and academic management roles rotated. While these recommendations from the OECD may not exactly reflect the Irish context and may be more economically focused, they are currently being reviewed by government. While caution should be taken on introducing such change, and the possible impact on organisational culture and goodwill, it is likely that this change is required to help ensure the TU's ambitions are realised. Given the significant financial investment required for the TU merging process and development, TUs will need to work together to ensure a strong collective voice is heard at the HEA and government levels to ensure they get the required funding at this early and critical stage of development. The Technological Higher Education Association (THEA) have been formed, which will help facilitate this important, collective influence.

Given the dynamic policy and legislative environment in Irish higher education, having a common voice is critical as the environment evolves. Previously incorporated as Institute of Technologies Ireland (IOTI), THEA was established in 2016 and acts as an authoritative voice for the technological higher education sector made up of five TUs, Dundalk IT and IADT. THEA published its first strategic plan 2018-2023, which set out common values that embrace innovative pedagogies, with a practical ethos and a focus on the learner (THEA, 2018). THEA's aim is to support its members *'in navigating their way through an ever changing and unceasingly complex external environment'* and win necessary funding required to achieve national policy objectives (THEA, 2018, p.13). Operating within a wide ranging, detailed and interlocking policy framework, where the countries competitiveness in higher education has been eroded, the strategy outlines high-level goals relating to advocacy and representation, its member networks and services to its community. In addition to TU related change, other policies are influencing how HEIs operate in terms of addressing gender disparity and performance. These will now be reviewed.

2.4 Additional policy influences driving change

To help address gender disparity within Irish HEIs, The National Review of Gender Equality in Irish Higher Education Institutions (HEA, 2016) was carried out in 2016. In addition, the system performance agreements between the HEA and HEIs have been more formalised through the Higher Education Authority Act 2022, which strengthens the role of the HEA. Both areas will now be reviewed.

Gender disparity

Improving gender balance reduces the risk of 'groupthink' mentalities and increases performance of organisations (HEA, 2016). However, like many other countries, gender stratification in Irish HEIs is well documented, where females only account for 21% of professor positions, 29% of associate professors, 36% of senior lecturer positions and 51% lecturer positions (O'Keefe and Courtois, 2019). Furthermore, O'Keefe and Courtois (2018) highlight that in 2016, women held 41% of all permanent full-time academic posts but 61% of temporary/ part time roles. Within HEIs, Grummell et al. (2009) argue that while glorification of performativity intensifies, work-life balance is negatively impacted due to increasing work responsibilities, and as it is very challenging for caregivers to satisfy performativity demands, senior management posts in higher education could be defined as care-free zones. As women are more likely to have care responsibilities than men, Grummell et al. (2009) suggests that this could be an important factor in understanding why women occupy less senior management positions in higher education than men, despite the wide range of equality legislation implemented over the last 30 years. In addition, O'Keefe and Courtois (2019) suggests that it is also important to examine lower ranks of staffing where precarious work arrangements because of family commitments, maternity leave etc can lead to exploitative gendered practices.

Walsh (2018) outlined that since the last 1990s, gender disparities in promotions resulted in many disputes across the university sector where very few females were promoted to associate professorship positions (UCD) or awarded honorary degrees (TCD) where NUIG had the lowest representation of female academics at senior level of any university. In fact, a female lecturer in NUIG, Dr. Micheline Sheehy Skeffington won her case of gender

discrimination, which was a landmark event that had implications across the HE sector through equality legislation and other demands for change (Walsh, 2018).

Since 2014, a series of policy initiatives to increase the proportion of females in senior academic roles in HEIs have taken place. The National Review of Gender Equality in Irish Higher Education Institutions (HEA, 2016) was a key initial step in highlighted gender inequality in Irish HEIs. However, since then, progress has been slow and based on this review, the Gender Action Plan 2018-2020 was published to accelerate gender equality with a vision of having the best education and training services in Europe by 2026 (DES, 2018). Over the last three years, women now make up seven of the 12 university presidents which is encouraging. Furthermore, in 2023, Irish HEIs were recognised within Europe as leading on gender equality, when three Irish universities won three of the four awards and were crowned Gender Equality Champions at an EU ceremony in Brussels (DFHERIS, 2023b). Although Ireland is helping to address gender disparity, overall progress is still slow and needs continued focus, especially at more senior management levels.

Higher Education System Performance Framework

To provide links between national strategy and improve accountability, the OECD recommended Ireland to use annual renewable contracts for HEIs as well as get funding allocations based on an agreed strategic plan (OECD, 2006). According to Walsh (2018), a revised allocation model was introduced in universities in 2006 and the IOTs in 2009, where the dominant element was a block grant that includes a core recurrent grant or Recurrent Grant Allocation Model (RGAM), calculated from various weightings such as programme discipline, programme level, as well as research and access among other things. The National Strategy for Higher Education to 2030 recommended that the HEA engage in strategic dialogue with HEIs to align strategies for individual institutions with national priorities and agree key performance indicators (KPIs) to measure HEI performance and decide on funding (DES, 2011, p.91). Although earmarked funding was top sliced from the block grant to fund strategic projects, Walsh (2018) outlined that performance-based funding was only established from 2013, which involved the withholding of 10% of the block allocation for verified performance against agreed targets from the previous year.

In 2013, the Department of Education and Skills issued the Higher Education System Performance Framework (HESPM) for the period 2014-2016. Many strategies and policy documents were issued during this period to clarify the role of Higher Education in delivering on national objectives such as skills development, research and innovation, access, and internationalisation. Other relevant developments included policies in gender equality, entrepreneurship, national planning, and sustainable development. These are outlined in Table 2.2 below. As a result, a new iteration of HESPM was published for 2018-2020 (HEA, 2018b).

Table 2.2: Evolving policy context (HEA, 2018b)

Policy Title
National Skills Strategy 2025
Innovation 2020
Investing in National Ambition: A Strategy for Funding Higher Education
National Plan for Equity of Access to Higher Education 2015-19
Action Plan to Expand Apprenticeship and Traineeship in Ireland
Irish Educated, Globally Connected
Enterprise 2025
National Policy Statement on Entrepreneurship
Foreign Languages Strategy
National Review of Gender Equality in Irish Higher Education Institutions
A Review of Entrepreneurship in Higher Education
Ireland 2040 National Planning Framework
National Strategy on Education for Sustainable Development

HESPM 2018-2020 (HEA, 2018b) details six main objectives, each of which have between 4 and 11 key performance indicators (KPIs) or high-level targets. In total there are almost 50 KPIs, each of which have a further level of granular detail. The following is a summary of the 6 main objectives:

- Providing a strong talent pipeline combining knowledge, skills & employability.
- Creating rich opportunities for national and international engagement.

- Excellent research, development, and innovation.
- Significantly improves the equality of opportunity through Education.
- Demonstrates consistent improvement in the quality of the learning environment.
- Demonstrates consistent improvement in governance, leadership, and operational excellence.

While no formal framework was in place from 2020 to 2022, the Higher Education Authority Act 2022 includes legislation for performance agreements with HEIs and further strengthens the role of the HEA. This Act refers to performance agreements with designated HEIs for a period of not more than five years that would take account of the strategic plan of the HEI and include performance objectives as well as the implementation, monitoring, assessment, and reporting processes (p.34).

Following the Higher Education Authority Act 2022, A draft Higher Education System Performance Framework 2023-2027 has been circulated for consultation by the HEA and includes five key themes of teaching and learning, research, and innovation, international, access and participation as well as engagement. Transversal themes of skills, sustainability, student success, enterprise and society, region, digital transformation, and institutional culture are also included (HEA, 2023a). Informed by national and European policies and strategies, these themes paint the future strategic direction of Irish HEIs and will need careful consideration by new TUs as they develop their initial strategic plans. Having reviewed the higher education context, the emergence of TUs and other policy drivers, we will now briefly review the area of leadership and management and governance, which is important for this study.

2.5 Leadership, management, and governance

While Walsh (2018, p.246) draws attention to Burton Clark's 'triangle of coordination' where HEIs are seen to be operating in a triangular space defined with respect to the relative importance of state authority, academic oligarchy, and market forces, he points out that the dominant narrative now has been the decline of state control with increasing self-regulation. In fact, the OECD identified a shared vision of European HE policy that has '*less administration direction, widened institutional autonomy but strengthened accountability*

mechanisms' (Walsh, 2018 p.247). The Higher Education Authority Act 2022 and the draft Higher Education System Performance Framework 2023-2027 previously discussed, are recent examples of strengthened accountability measures for HEIs.

Walsh (2018) argued that with higher education seen as a key driver for the economy, this was intensified in the early twenty-first century because of globalisation, international competition, and an economic crisis- the outcome was pressure to focus on economic objectives, more intervention from the state, more commercialisation and less public resourcing. Clancy (2015, p.253) argues that because of challenges from an increasingly complex and demanding external environment, HEI managers have gained power to be more entrepreneurial, but this has *'added a new layer of complexity to the university's already diverse and multifaceted roles in society.'*

In addition to further complexity, many academics argue that these changes led to New Public Management (NPM) or managerialism approaches to how HEIs were run, where control is increased from within and without the HEIs, embodying more of a hierarchical, authoritative management of staff (Walsh, 2018). Clancy (2015) argues that HEIs have experienced a sharp decline in autonomy, where institute accountability is now assessed by the HEA. Clarke, Kenny & Loxley (2015) uncovered evidence of NPM/ managerialism through a survey of Irish academics who reported the lowest levels of personal influence in shaping academic policies compared to other participating countries in Europe. Irish academics were also most likely to report the presence of top-down management style in their HEI with over three quarters of junior and academic staff reporting its existence (Walsh, 2018). With the UK and Austria being the only countries coming close to Ireland, the three countries were classified as the New Public Management group. However, NPM or *'neoliberal ideology leaves public service, outreach and engagement activities in a precarious place'* (Kliwer, 2019, p.575) so its influence needs to be regulated. Ball (2016) argues that neoliberalism in Ireland needs academic staff to be more vigilant about its transformative effects through incremental changes and that critical reflection is required to ensure the focus remains on *'real education work.'* Furthermore, Ball and Olmedo (2012) believe that in the context of neoliberalism, resistance is warranted to ensure people take an active role in their own self-definition as a teaching subject and consider their own self-care.

Clarke, Kenny & Loxley (2015) revealed a low assessment of leadership competence with between 30% and 35% of academic staff in Irish HEIs agreeing that they provide competent leadership. While Irish HEI communication between management and academics was perceived as the lowest out of the eight countries surveyed, Walsh (2018) also points out that Irish academics report working longer hours when compared to other European countries and have the second lowest level of job satisfaction, with the UK being the lowest. This resonates with the case for self-care through resistance previously mentioned (Ball and Olmedo, 2012). However, when academic salaries are compared internationally, salaries are quite high and are protected from institute finances (OECD, 2006). Kliewer (2019) suggests that rather than a formal authority type of leadership that supports neoliberal ideology, he argues for an approach that creates space for dialogue, relationships, and democracy, where individuals develop their capabilities supported by larger social, political, cultural, and economic systems (p.587). Fullan (2006) also highlights the importance organisational learning to help facilitate change in schools.

Other leadership concerns emerged from the strategic dialogue process between the HEA and HEIs as part of the National Strategy for Higher Education 2030, when weaknesses were identified in HEI strategic planning, where limited evidence was found of effective strategic prioritising as well as a lack of coherence (Thorn, 2018). Fullan (2006) argues that organisations need to be strategic and show progress in relation to their objectives in the short term as well as the long term, while acting within the culture of the organisation, he argues that the challenge is to develop strategies, training and experiences and actions to generate more leaders who can take a bigger picture approach and facilitate organisational learning and system change (Fullan, 2006, p.121). Although Fullan (2006) may be referring more to change in education from a schools rather than HEI perspectives, it is also relevant from a broader systems perspective.

Ireland is lower than the EU average for performance orientation and Walsh (2018) suggests this could indicate a notion of a protest. It could be argued that because of long working hours, low job satisfaction and increasing performance management processes, a notion of protest could arise. However, given over a decade has passed while using performance

frameworks, I would argue that this process is well established, and a lack of strategic planning and coherence may not be as much of an issue at present.

Given the complex, evolving and heavily regulated higher educational sector in Ireland, managers and leaders face many challenges which can give rise to power tensions and resistance. We will now investigate some of these challenges which have been identified in this chapter, with a particular focus on the emerging TUs and their leadership and management staff.

2.6 Challenges for new TUs

Many challenges exist for the emerging TUs. Strategically, several TUs are developing new strategic plans. Given that the OECD report (2023a) highlighted concerns in relation to academic management having a lack of administration support and being responsible for a broad remit, it may be difficult to create space for strategic discussions. In addition, plans will need to align somewhat to the broad and evolving performance frameworks. At the same time, Clancy (2015) warns that the *'leadership challenge at institution and national level is to sustain the desired diversity, while guarding against goal displacement, which distorts the true value of higher education'* (p.310). Therefore, strategic planning for new TUs will need to consider their uniqueness and build this into their strategic planning processes to embed it into the organisation and keep it secure, despite the turbulent pressures externally.

From an operational perspective, a lack of funding and investment have given rise to many issues and is well documented in many policies including the TURN report (2019) and the OECD (2023a) review of academic structures. Funding to support research, teaching, infrastructure development and adequate academic structures and contracts as well as change, are required to enable TUs to delivery their broad mandate as well as the stretched metrics for research students and staff called out in the Technological Universities Act (2018). Coupled with greater pressure on resources due to growing student numbers and diverse student backgrounds (Loxley et al., 2014), current TU structures and management and leadership issues need to be addressed through adequate funding from the state. While it is encouraging to see the HEA (2023b) issue calls for funding to support TU transformation

through the TU Transformation Fund (TUTF) and more recently the TU Research and Innovation Supporting Enterprise Scheme (TU Rise) and the Technological Sector Advancement Fund (TSAF), this support and more will be required to facilitate a robust transition from individual IOTs to fully functioning and sustainable TUs.

Although Walsh (2018) identifies that Irish HEIs may have a more top-down management style compared to many other countries, Clancy (2015) argues that the top-down mandates have limited impact for fundamental change. As IOTs who have competed for almost 50 years come together, developing trust and relationships across new geographical divides will create an important foundation to build upon, and help reduce any resistance to change. Gender disparity, inclusion and diversity are all gaining focus from a policy and legislation perspective, and this is also influencing the culture of HEIs, with many gaining Athena Swan accreditation.

From a staff capability perspective, Walsh (2018) highlighted low assessment of leadership competence in Irish HEIs, and the OECD report (2023a) points out that little accountability exists for research and engagement activities and a lack of career structures to incentivise performance of staff and academic managers who may have a broad remit and a lack of administration support. Coupled with additional demands of merging, growing student numbers and increasing research demands, the capability of new TUs will need significant investment as suggested in the TURN report (2019) and OECD report (2023a).

Clancy (2015) argues that due to a lack of engagement between academic critics and policy makers, there is little research in this area to inform future policy direction. Clancy believes that as there are trust concerns between key players, a key challenge for the future is to find a more harmonious solution between autonomy and accountability. In relation to new TUs, Clancy (2015) argues that the rationale should be based on teaching, research, and knowledge exchange rather than financial savings and noted that cost savings may be possible in the longer term, but the merging process itself will take additional costs. He also warns that the management of multiple campuses across geographical areas may be a challenge, despite this being an original objective of RTCs. Therefore, a stronger influence and voice from HEIs and researchers are required to feed into policy development and the

effective prioritisation of funding to support TUs in addressing their vast challenges ahead. Hence, the importance of THEA is not to be underestimated during this time of change.

2.7 Conclusion

This chapter has provided an overview of central developments in the Irish higher educational sector, its policies and legislation, with a specific focus on the emerging TUs. An initial review of leadership, management and governance and associated challenges have also been discussed. HEIs have a complex and evolving regulatory environment with strong neoliberal state dependence that is influencing change and performance. As HEIs recover from historical funding and resource constraints, many challenges exist, especially within the new TUs which are experiencing significant change. With many recommendations on TU funding and structural changes identified in the TURN report (2019) and the OECD report (2023a), TUs will require careful consideration and investment to enable them to effectively integrate from IOTs and set them up to successfully achieve their new mandate outlined in the TU Act 2018.

From a personal perspective, I have witnessed the evolution of TU legislation with excitement. As an IOT, limitations were in place in relation to international recognition and there was a strong desire to achieve a university title for many reasons. This title would have a broader international appeal so that internationalisation of our student cohort could be strengthened (along with attractive income streams). In addition, a university title would make our HEI more appealing to regional and national students (and parents) which could lead to stronger recruitment and retention. However, with an already full workload, the challenges of merging multiple IOTs and associated campuses that were historical competitors was always in my mind along with the treat of future rationalisation and efficiency on the horizon. While growing research would become a key indicator for the future TU, I didn't feel equipped for this area as I didn't have a doctoral level qualification and the workload allocation model was not set up for growing research. The next chapter will build upon this introduction through a literature review, where the focus will move from policy and legislation to peer reviewed journal papers and other key research resources relevant to this study.

Chapter 3 Literature review

3.1 Introduction

This chapter presents a systematic literature review with a focus on change and leadership in Higher Education. To expand relevant literature base, an extended literature review was also completed, followed by a review of the overall gaps in literature. A theoretical framework using complexity theory is then discussed followed by a review of its limitations. The conceptual framework for this study is then presented, followed by a conclusion.

A systematic literature review was conducted to establish what is known about change and leadership in Higher Education and to identify gaps in knowledge. While Kuipers et al. (2014) completed a literature review on the management of change in public sector organisations for the period between 2000 and 2010, the literature review for this study will follow on from 2010 to identify the most recent literature, with a more specific focus on higher education. Kuipers et al. (2014) identified that more research with a particular focus on leading change is needed which is the intention of this study. Although much literature since 2010 was written during times of austerity due to the global recession, it will provide the most up to date snapshot, relevant for this study. It is intended that a review of papers over the last 13 years should uncover a critical mass of literature to help identify and understand the current themes of concern for leading change in higher education at present within the emerging TUs. In what follows, the methods used to carry out the literature review are explained. Then, findings are analysed and presented, thematic areas identified and critiqued, and a summary presented.

3.2 Literature review

Method

Considering Cooper's taxonomy of literature reviews (Cooper, 1988, cited by Randolph, 2019, p.1), this literature review focuses mainly on the research outcomes and research methods used with the goal of integrating the literature. One of Cooper's article selection approaches is to take a purposive sample where the reviewer examines only the central articles in the field. Using a selective criterion, a neutral perspective will be taken on the

identified literature. An overview of the findings will initially be given, followed by a review of the main themes identified.

Initially, a general library search (Maynooth University) and Google Scholar searches were carried out to get an appreciation of the literature in this area. Given the large volume identified, I decided to limit the literature review to peer-reviewed academic articles only and utilise Scopus and Academic Search Complete (EBSCO) to identify relevant sources. To get an optimum focus including recent articles, and for me to be able to access them, the search was limited to those in the English language, published between April 2010 to August 2023. The following search words were used and needed to be contained in the article title:

(Change or transform) and (Leadership or management) and (Higher Education or university or post-secondary school).

When these search criteria were used, Scopus and Academic Search Complete (EBSCO) identified 92 articles. Another filter was applied by performing an abstract review to remove non relevant articles, such as those related to data management and hospitality management. This reduced the article count to 55. To rationalise down further to the core research area, another filter was applied that required each article to include the word '*Leadership*' as well as '*Change*' in its title. This filter removed articles focused on general change management but did not have the reference to leadership. The resulting final article count was limited to 30 peer reviewed articles that matched the core area of focus for this literature review. Figure 3.1 shows a summary of this filtering process.

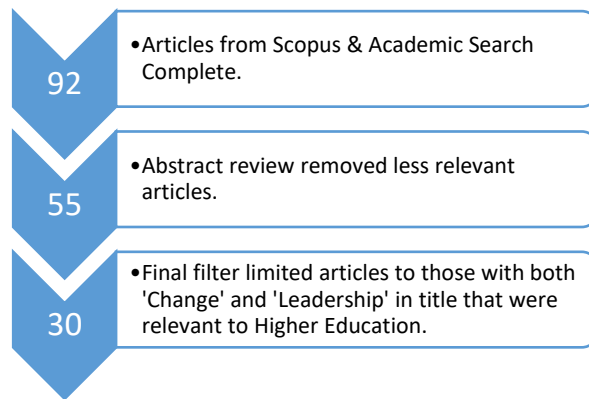


Figure 3.1: Systematic literature review steps

These articles were then read to get an overall appreciation of the content as well as identify each article source, output or findings, research methodology and its knowledge domain. See Appendix 1 containing a table of these references, which includes the paper author, title, source, year, knowledge domain, research methods, and findings.

Overview of literature

Figure 3.2 below demonstrates that since 2010, there has been a steady output of peer reviewed journal articles published up until end of 2022 that focused on both leadership and change in Higher Education. (As 2023 is a partial year it has not been included in the diagram).

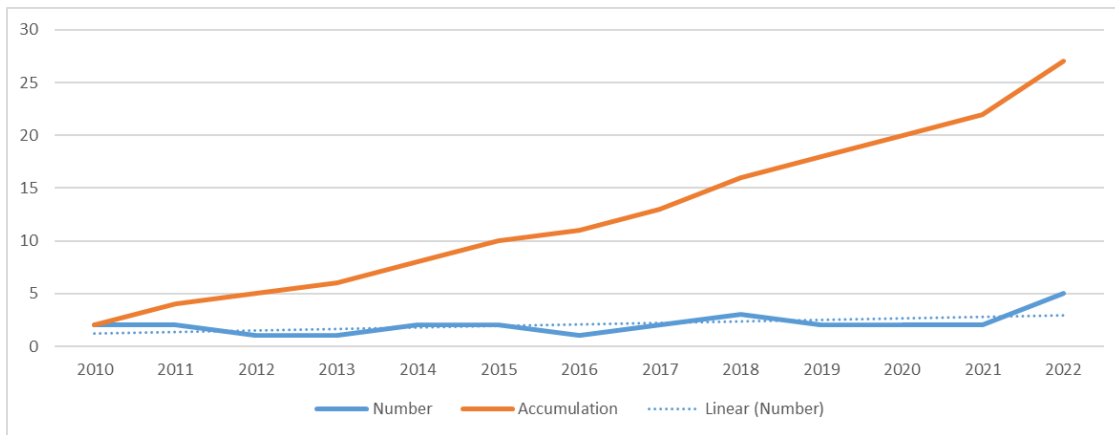


Figure 3.2: Distribution of literature from 2010-2022

However, 24 article sources were identified which suggests that this research area is quite diverse and fragmented. In Appendix 1, each article was categorised using Gunter's (2016) four knowledge domains, which indicates that the instrumental perspective was one of the least researched. and is an area that will be focused on in this study.

A qualitative approach was taken by most researchers, such as interviews of various leaders or stakeholders, and a small number of researchers utilised quantitative approaches. However, no article utilised a mixed methods of both quantitative and qualitative techniques to support their research findings. This suggests that a mixed methods approach for further research would help address current knowledge gaps.

Emerging themes

Braun and Clarke (2006, 2019) was chosen as an indicative guide for thematic analysis due to its flexible and widely used approach where themes can be identified inductively and deductively. All papers were reviewed and summarised to get familiar with the data and initial codes were developed, which were then grouped into themes. Braun and Clarke (2006) argue that in the thematic analysis process, researchers initially immerse themselves in the literature collected to identify recurrent topics, ideas or concepts related to the research questions. Table 3.1 provides an overview of these themes and what papers they

relate to. Although these articles may have included other themes, the themes listed relate specifically to change and leadership in higher education that were deemed relevant for this study. The themes of change drivers, context and culture relate to the first subquestion, staff relates to the second subquestion and, finally leadership approaches, leadership characteristics and leadership recruitment and development are relevant to the subquestions 3 and 4.

Table 3.1: Themes from literature review

Reference	Change Drivers	Context	Culture	Staff	Leadership approaches	Leadership characteristics	Leadership recruitment and dev.
Burrell and Rahim (2010)					X		
Choi et al. (2011)				X	X		
Chow (2013)	X			X	X		
Collins (2014)			X	X			X
Dahlvig (2018)	X	X		X		X	
Dobi (2012)		X			X		
Drew (2010)	X			X			
Edwards et al. (2018)	X			X		X	
Gebretsadik (2022)							X
Gelaidan et al. (2018)	X			X	X		
Howells et al. (2014)	X	X				X	
Jones and Harvey (2017)					X		
Kohtamäki (2019)	X					X	X
Lazaridou (2019)					X	X	
Mukaram et al. (2021)	X		X		X		
O'Connor (2020)	X						X
Patton (2021)					X		X
Rasmussen (2015)	X	X					X
Said et al. (2015)	X						
Suboticki and Lagesen (2022)	X		X				X
Tjeldvoll (2011)	X	X	X				
Waisy and Wei (2020)					X	X	
Waring (2017)	X	X			X	X	X
Warwick (2016)	X						
Whittaker & Montgomery (2022)	X	X	X		X		
Ramezani et al. (2022)	X	X			X	X	
Powell & Grubbström (2023)			X	X	X		
Edge et al. (2022)	X	X	X	X	X	X	
Mwangu (2020)		X			X		X
Yasser et al. (2022)					X		

Change drivers

The first theme which emerged from the systematic literature review was the external change drivers pushing for change (similar theme to Kuipers et al, 2014). While these external drivers provide valuable insights into the external context of HEIs, they are the source of much change, and include funding (Rasmussen, 2015), globalisation and New Public Management (Tjeldvoll, 2011), technology (Gelaidan et al., 2018), internationalisation (Howells et al., 2014), climate change (Dahlvig, 2018), the Covid-19 pandemic (Mukaram et al., 2021), and equality, diversity, and gender balance (Rasmussen, 2015). Although these examples of change drivers are from internationally diverse sources, their appreciation is important for this study, especially given the lack of literature in this field.

With increasing competition and marketisation of higher education, HEIs are finding new ways of funding in exchange for more autonomy (Howells et al., 2014). A survey of Finnish academic leaders identified financial resources as the most crucial for their organisations, ahead of power and human resources (Kohtamaki, 2019). In addition, Rasmussen (2015) found that the system introduced for distributing funds to Norwegian universities was viewed positively as it *'rewarded the activities and results that academic staff value, that is, teaching students and publishing research (p.4).'* However, Drew (2010) outlined the managing fiscal resources and the effort needed to apply for funding was a challenge for senior leaders. Fiscal responsibilities also featured as a key role for department chairs (Mwangu, 2020). While Chapter two previously highlighted the ongoing recovery from the last recession in Ireland that led to a steady decline in state funding at a time when student numbers were increasing (Walsh, 2018), funding is still a relevant change driver in Ireland.

Related to funding is Globalisation and New Public Management that are important considerations driving change. Tjeldvoll (2011) suggests that competition is a distinct feature of Globalisation and that marketisation of education is increasing. As part of a general trend of neoliberal economic thought that spread rapidly across the western world, Rasmussen (2015) states that New Public Management aims to reduce state funding and promote more competition between providers, as control has shifted from the state to the university. As a result, many structural governance and institutional changes are occurring in higher education across Europe, Australasia, and North America, associated with achieving

greater productivity and economic performance (Howells et al., 2014). Waring (2017) argues that such change has transformed academic departments to focus on corporate targets but with tight budgets. Higher Education is increasingly decentralised, due to devolved agency of the state, and more fragmentation, due to an increasing number of actors in the higher education field such as ranking agencies and funding agencies (Howells et al., 2014). This increases the number of stakeholders and complexity of the higher educational sector. In Finland for example, universities underwent reform in 2010 to transform from state agencies to a more responsive market focused independent entity (Kohtamaki, 2019). Globalisation and New Public Management are key change drivers that HEI leaders face as they compete for resources such as students and funding and aim to achieve various improvement metrics. As Ireland changes the structure of the HEI landscape through the formation of new TUs and embraces the Higher Education Authority Act 2022, which legislates for performance agreements and increases the role of the HEA, structural and governance changes are very relevant for those leading change (section 2.3).

Technology drivers are forcing organisations to change, to remain competitive and survive (Gelaidan et al., 2018). Chow (2013) believes that students can benefit through technology adoption as it provides greater access, connectivity, and power to communicate with anyone, anywhere. In addition, Chow added that academic staff will need to continue to evolve with technology, and face challenges to remain agile in using all that is available for student education. Technology has become even more important in education since the Covid-19 pandemic, which has highlighted ongoing challenges with remote learning, student assessment and investment for technological advancement and a global environment (Mukaram et al., 2021). As online learning becomes more common, specific quality standards are being introduced to help guide its development (Edge et al., 2022), and HEIs must keep abreast of technological developments and their implications.

While 11% of Ireland's enrolments are international (HEA, 2021b), internationalisation and the mobility and reach of staff and students is a major change factor for higher education, and in the context of reduced funding, international student fees are attractive to HEIs (Howells et al., 2014). Dahlvig (2018) concurs and states that because of marketisation and globalisation, institutions are aiming to reach broader markets by recruiting international

students. Internationalisation is also an important component to the experience of learners living in a globalised world (Said et al., 2015). Therefore, HEIs must deal with increasingly diverse students who engage differently with higher education (Dahlvig, 2018). The National Strategy for Higher Education (DES, 2011) previously discussed in section 2.3 also includes Internationalisation as a heading.

While climate change and environmental sustainability may be the most pressing issues facing mankind, Dahlvig (2018) argues the focus of higher education has become more aligned to the private benefit of students than to build a civil society, and rebalancing this will take expert leadership. In countries like Africa, sustainable research and development, water conservation and research into climate change are important challenges (Edwards et al., 2018). A case study embedding this sustainable philosophy into curriculum at Plymouth University was published by Warwick (2016), which shows how curriculum can consider three dimensions- concern for people and planet, from local to global geography and from present to future. With the introduction of the UN Sustainable Development Goals (SDGs), educational curriculum and HEIs will need to evolve and embrace these key challenges, and Whittaker and Montgomery (2022) suggest that innovation through shared efforts will need to be facilitated by leadership. While sustainable development has featured in Irish performance frameworks, previously discussed in section 2.4, the first TU Dublin strategic intent 2030 document was developed through the lens of these UN goals (TU Dublin, 2020) which demonstrates its prominence in Ireland as a change driver.

More recently, research is emerging in relation to how HEI's coped with Covid-19. Mukaram et al. (2021) highlighted the unique and significant challenge that HEIs faced due to this pandemic. They believe that Covid-19 has highlighted the importance of change and the role of leadership, and that HEIs need to adapt to rapidly changing conditions and transform their traditional forms of teaching and learning. Furthermore, Mukaram et al. (2021) also stressed that those HEIs that invested in digital systems and had enhanced organisational learning capability survived these turbulent times better than ones that didn't. The recent pandemic has triggered a paradigm shift in how education is being delivered and assessed and was a significant disruption to education. It also has forced HEIs to become more responsive to environmental changes and disruptions.

Some literature reviewed identified equality, diversity, and gender balance as being important values for universities, especially literature from Nordic countries (Rasmussen, 2015, Suboticki and Lagesen, 2022, Powell & Grubbstrom, 2023). For example, in Norway, all universities are obligated to develop action plans for gender equality and diversity and gender balance is an ongoing problem as females account for less than a quarter of profession positions across European HEIs (Suboticki and Lagesen, 2022). In Ireland, O'Connor (2020) points out that 51% of lecturers are women but only 24% of these are at full professor level. He argues that the pace of change to address this issue has been slow and a contributing factor was a lack of gender competence by those in managerial leadership positions a decade ago. With the HEA linking state funding to the proportion of women in professorial roles, he is hopeful that a quota of 40% by 2024 will be likely. O'Connor also is positive about the emerging importance of gender competence, especially as it is becoming a key criterion for appointment to line management positions. Gender equality was raised as a concern by Rasmussen (2015), where academic quality was based on the number of publications in the last five years and females who were on maternity leave were disadvantaged. Equality, diversity, and gender balance are key considerations and change drivers within higher education, and management, teachers and practice have a key part to play in progressing this agenda (Powell & Grubbstrom, 2023).

Many change drivers relate to one another. For example, globalisation is leading to increased competition and marketisation of education. With increased competition for students and funds, HEIs are becoming more independent through New Public Management. Globalisation is also facilitating more diverse, international students that are becoming an important income stream to HEIs. The recent pandemic has been a catalyst for technological advancement in teaching and learning and this is supporting further globalisation and internationalisation. However, due to globalisation and growth, climate change and sustainability are significant concerns facing mankind and need to be incorporated into curriculum. Equality, diversity, and gender balance have also been identified as key change drivers within HEIs. Leaders face many diverse change drivers and balancing between the private benefit of students, while building a civil society will take expert leadership (Dahlvig, 2018). Overall, external change drivers are important for this

study as they provide valuable insights into the source and type of changes that HEIs and their leaders must respond to.

Context

The influence of HEI's internal context was another theme emerging from the 30 articles. Contextual factors such as HEI models and management structures were identified as important. Tjeldvoll (2011) suggests that leadership is strongly linked to the cultural context of HEIs and suggests that university operations are governed by both internal and external environmental factors. Howells et al. (2014) argues that *'internal management structures, systems and practices and the professional academic culture of universities, as well as their role in society, have changed dramatically'* (p.254). Regarding management structures, Waring (2017) suggests that the standard top down, performance driven management model is outdated and not suited to the increasing turbulent higher educational sector. Instead, he argues for a more devolution of power to academic departments that can foster a more inclusive approach to leadership that enables more collaboration and agility to respond to opportunities. Waring (2017) argues that the current judgemental approach to performance management that has weakened the academic voice, should be *'replaced by one that is employee-centred, based on values of trust, professionalism and collaborative endeavour'* (p.554). In some institutes, the pressure to publish or perish may leave little time or energy for other activities as faculty and institutions typically focus on research identity (Dahlvig, 2018). Other issues relating to performance management were identified by Rasmussen (2015) who said that when recruitment in a Norwegian University was focused on research performance, it led to the hiring of highly published staff who could not teach (Rasmussen, 2015). Whilst these examples are from diverse country contexts, they resonate strongly with the contextual insights outlined previously in Chapter two, and the TU challenges, outlined in section 2.6.

Culture

While culture refers to values and assumptions that characterise organisations and their members (section 1.4), cultural influences and traditions may also have a significant impact on leadership and the performance of higher education (Tjeldvoll, 2011). Universities in East

Asia with strong Confucian traditions may have evolved differently to Anglo- American universities and could have retained more hierarchical structures (Tjeldvoll, 2011). Collins (2014) argues that effective leadership in any organization especially not for profit ones, relies on persuasion, and any effort to encourage and teach leadership will fail unless it is sensitive to the distinctive challenges of higher education's individualistic culture. In the context of the Covid-19 pandemic, Mukaram et al. (2021) stressed the important role of leaders in building a culture of trust, shared leadership, and collaboration to improve the ability of educational institutions to adapt. Culture is an important contextual factor for leaders and is also influenced by other factors previously discussed such as performance management and the management and leadership structures. Culture is also associated with the equality, diversity, and gender balance change driver and Suboticki and Lagesen (2022) outlined how diversity and gender balance can be improved by the hiring of new staff and changing the organisational culture. Although culture features as a theme within this systematic literature review, further reading will be necessary to gain a deeper appreciation for culture, how it relates to change and leadership, and how it can be assessed within higher education for this study (see section 3.3).

Staff

HEI staff are an important consideration in the literature reviewed. To deal with issues and challenges facing HEIs, building and maintaining the team and developing the individual is necessary (Drew, 2010). However, Collins (2014) states that because of the culture of individual scholarship, HEIs do not encourage academics to develop as academic leaders and many lack leadership training programmes for academics. Several key staff attributes that support change were identified in this literature review, but little emphasis on the need for staff training was present. Drew (2010) suggests that academics as independent thinkers may find collaborating a challenge, and Gelaidan et al. (2018) believes emotional intelligent employees are more open to change. Other research suggests that staff mindset (growth or fixed) influence people's choices in approaching or avoiding risk, as well as their willingness to exert effort (Dahlvig, 2018).

Leaders need to be aware of the academic context and expertise of staff who have increasing demands and form complex social organisations. Drew (2010) points out that HEI

tensions exist at an academic level, between pedagogy and research versus creating efficiencies. In the context of resource constraints, academics have higher academic workloads and increased administration associated with managerialism (Drew, 2010). Chow (2013) highlights that HEIs are complex, imperfect social organisations that require compromise and consensus building and this leads to proceeding slowly with changes and that challenges were less technological and more related to relationships between different stakeholders and differing expectations and that getting consensus on the vision at the initial stages of change prevented future barriers. The human dimension is critical in issues and challenges to do with leadership (Drew, 2010). In the context of merging two public sector institutions, Choi et al. (2011) argues that top-down management carries a lot of risk as the clash between professionalism and managerialism is a bigger issue for leadership than differences in organisational cultures and that inter, and intra-organisational dynamics are critical in change processes. Edwards et al. (2018) believes that most HEIs should have a systematic approach to strategies by utilising staff expertise to appreciate thinking, improve ownership and identify solutions. Research provides evidence that leaders influence readiness for change at both the individual and organisational level and such leaders may be positional leaders or opinion leaders (Dahlvig, 2018). Given the importance of staff as a stakeholder of change, further research on staff perceptions of change and leadership through this study would help consolidate existing literature in this area and could also provide valuable insights into organisational culture.

Leadership approaches

Another key theme that emerged from the reviewed articles relates to leadership approaches and associated styles. While various leadership approaches were referenced in this literature, Lazaridou (2019) argues that change in a complex organisation like HEIs requires many different types of leadership with varying distribution of control. From six years as Head of School, Patton (2021) alludes to the complex, multifaceted roles of leaders and supports transformational leadership, described as a process of inspiring followers with a vision and developing them to become future leaders, and believes it is very effective during organisational change. Waisy (2020) concurs and argues that transformational leadership is very significant for organisations that require radical changes to survive. Self-

leadership is also discussed by Patton (2021) who believes it is a pre-requisite to being able to lead others, while relational leadership involves a relational process to achieve a goal by collaborating with others. Jones and Harvey (2017) suggest that relational leadership creates the conditions of collective learning and requires the leader to be adaptable, a mentor, be reflective, resilient, and working outside one's comfort zone. Patton also alludes to servant leadership which she believes is an extension of relational leadership while assisting the growth of persons being served. Finally, Whittaker and Montgomery (2022) suggest four models of leadership to support innovation and change which include shared leadership, innovative leadership, qualitative leadership, and dynamic leadership. Overall, this literature has identified various forms of leadership styles, but little consensus exists on what is most appropriate for leading change. Further research is needed to develop this area, as it is identified as a key gap relevant to this study.

Burrell and Rahim (2010) recommend that a strategic thinking approach is taken for higher education leadership, one that utilises strategic planning and change frameworks. However, due to the complexity involved, they highlight that higher education has not operated in this way previously. Research by Howells et al. (2014) characterises leadership agency that includes the themes of vision, alignment, strategic collaboration. Having a vision, while aligning the direction of departments was seen as important as well as strategic collaboration with other institutions and innovative approaches underpinning the institute (Howells et al, 2014). However, Choi et al. (2011) warn through a research case study that a top-down leadership approach leads to a limited sense of organisational complexity as well as the impact that the professionalism of staff can have on resisting change. Therefore, this top-down approach to change may have limitations.

However, to cope with complex changing environments, Waring (2017) argues that an emergent leadership approach should be considered to replace bureaucratic structures. This approach supports adhocracy, inclusivity, flexibility, and devolution of power, which are being seen as the best means of engaging staff in a time of rapid change and increasing competition (Waring, 2017). Distributed leadership is another term found in this research, which has similarities to emergent leadership, and was seen to counteract the negative effects of managerialism and performance management (Jones and Harvey 2017; Waring,

2017). Apart from better staff engagement, research indicates that a more decentralised organisational model has many other benefits including enhanced student communication and involvement (Dobi, 2012). Related to distributed leadership, Mukaram (2021) suggests that adaptive leadership is where leaders release the potential of their staff and systems, contributes to organisational readiness for change. Many benefits have emerged from this literature associated with a more devolved leadership model, which can lead to emerging change, but additional research is required to understand an overarching change leadership approach that can accommodate all types of change, whether it is from top-down or bottom up.

The term '*change leadership*' features in some of the literature. For example, Gebretsadik (2022) suggests that change leadership involves providing direction and supports to staff and identifies a strong relationship between it and change readiness of academic staff. Marshall (2007, cited by Drew, 2010) discusses change leadership as a key challenge for universities and is needed for effecting cultural shift, globalisation, diversity and equality and strategic adaptation. Change leadership in higher education also comes into focus by Ramezani et al. (2022), who categorised their findings into change leadership roles and characteristics, providing for the context of change and the change leadership process and path. Although the systematic literature review search criteria targeted change and leadership in higher education, reference to change leadership is weak within this literature and additional research is required to examine this key topic further.

Leadership characteristics

While this study is concerned with change leadership that focuses on leadership behaviours or characteristics that are present during organisational change (Van der Voet, 2014a), various leadership characteristics emerge from this literature, which are important to reflect on so that we can get a deeper insight into leaders as individuals. Although these characteristics are fragmented and diverse, they enable a deeper understanding of how leaders as individuals can successfully lead change in HEIs. Kohtamaki (2019) suggests that leaders have three roles- symbolic, responsive, and discretionary (focusing their direction based on their interpretations) and by applying resource dependent theory, crucial resource types sought by leaders were identified, which drive their action and effort; these are

financial, power, and human resources. Kohtamaki (2019) suggested that academic managers use self-reflection, are careful with the use of power and consider influencing the organisational culture to reduce conflict (p79). While focusing on trust and relationships to develop their power, academic managers give attention to those who have power over resources etc. Given the financial and resource challenges associated with historical funding cuts and ongoing growth in students outlined in section 2.1, the importance of power and securing resources is an important matter for leadership.

When incorporating new performance mechanisms, Kohtamaki (2019) discovered that leaders worked with people to develop trust, and this is also supported by Waisy and Wei (2020). Related to trust, Murphy, 2010 (cited by Edwards et al., 2018 p.55) argues that leaders need to have full commitment, be able to act with others (teams) and act alone (uniqueness), manage risks, learn to lead, and be able to sell ideas and have perseverance. While developing trust and working with people is important for leading change, it is still unclear what leadership characteristics can support trust and relationships.

Leadership characteristics associated with innovation are also discussed in this literature. While Howells et al. (2014) identifies innovation as a theme for characterising leadership agency, Edwards et al. (2018) also highlight the importance of innovation and outlined practical rules for effective leadership, which include a search for solutions and creative thinking. Innovative leadership that required experimentation, risk taking and learning is supported by Whittaker and Montgomery (2022). While creativity and innovation may relate to emergent leadership previously discussed, these topics require further research to determine how they relate to change and leadership in higher education.

Another key leadership characteristic found in this research relates to change management capabilities, such as the ability to understand the type of change being made and the appropriate timescale. Lazaridou (2019) distinguishes between technical and adaptive changes to have appropriate and effective leadership responses, but elsewhere the types of changes and their influence on leadership was absent. In relation to timelines, Gelaidan et al. (2018) provide evidence that organizational readiness for change is usually supported by making change gradually. This is supported by Waring (2017) who makes a case for

incrementalism by making small shifts and building commitment gradually and argues that resistance is minimised as people come to accept new methods of working or behaviour over time. Implementing change slowly and focusing on the human element was also raised by Chow (2013). Kohtamaki (2019) reinforces this approach through a research case study that implemented a new management culture. Although evidence exists for implementing change gradually for higher education, the field of change management is not well developed in this literature, so further study is required to gain a deeper understanding of this specialised field of research, relevant to this study.

Although many articles suggest suitable leadership characteristics, there is little consensus on what the full range of leadership characteristics or behaviours are most suited for leading and managing change in higher education.

Leadership recruitment and development

While Collins (2014) believes that staff recruited for their individual scholarship may not have the leadership skillsets to inspire and persuade, he recommends that HEIs think now about what sort of leadership their institutions need, then recruit people who will be effective in that environment. Management roles are very different and Waring (2017) stresses that departments are being run by management teams focused on corporate targets, working within tight budgetary constraints. Given the lack of females in senior academic positions discussed in section 2.4 (Suboticki and Lagesen, 2022; O'Connor, 2020) that may increase the risk of groupthink (HEA, 2016), this is also an important consideration for leadership recruitment.

An alternative to specific recruitment of leaders was identified in this literature, which is the upskilling and development of existing academic staff. Patton (2021) argues that academic leadership expertise is developmental and evolutionary and requires continuous refinement. However, as previously discussed, Collins (2014) maintains that faculty members are seldom facilitated to develop as academic leaders, as there seems to be an assumption that good scholars make good leaders, but this is not always the case.

With regards to leadership training and development, which compliments the previous topic of developing staff as individuals, Kohtamaki (2019) suggests that leaders benefit from

courses in business administration, human resources/leadership and psychology and that mid-level managers' professional development has been shown to involve three phases: learning, function development and institutional projection and transmission of management tasks. Waring (2017) believes that HEIs already have the academic specialists in these relevant areas to develop such programmes and that the involvement of trade union representatives would prepare leaders for dealing with individual grievances, disputes, and conflict. Gebretsadik (2022) highlights that leaders need to also be committed to change tools and provide resources such as training for smooth implementation of change at universities. As a result of limited capacity building and mentoring initiatives for leadership, more strain is put on academic managers (Mwangu, 2020).

Effective leadership recruitment and development are important considerations for leading change in higher education so that staff with the correct skillsets are identified and developed to address current and future leadership needs. However, leadership development opportunities appear to be limited and this resonates with the low assessment of leadership competence in Ireland discussed in section 2.5 by Walsh (2018).

3.3 Extended literature review

Given the limited number of articles identified through the systematic literature review, additional literature was reviewed to allow for a wider knowledge base for this research. In this section, additional literature on central topics including culture, change, change leadership, change management, and change leadership, will be reviewed. Although these topics were discussed within the confines of the initial systematic literature, further research is required to gain a deeper appreciation.

Culture

The importance of organisational culture for leadership became evident in literature reviewed. However, little research attempted to define culture, determine how it can be assessed and how HEI culture compares to other organisations. Collins (2014) alluded to the culture of individual scholarship, while Gelaidan et al. (2018) points out that further research is needed to investigate the effects of factors such as culture. Although many

different definitions of culture exist, a review of literature on organisational culture reveals that most writers agree that culture refers to the values and assumptions that characterise an organisation (Cameron and Quinn, 2011 p.18). This definition is being taken for this study.

According to Hatch (1993), it was not until the 1980s that the concept of culture was adopted by management scholars, and Edward Schein was particularly influential who articulated a conceptual framework for organisational culture. This framework is outlined below in Figure 3.3 and suggests culture exists on three levels. On the surface are artifacts that are visible results of activity grounded in values and assumptions. Below artifacts are values, which are goals and standards considered to have intrinsic worth. Below values are assumptions that are beliefs about reality. However, Hatch (1993) argued that this model leaves gaps in relation to the appreciation of organisational culture as processes and symbols.

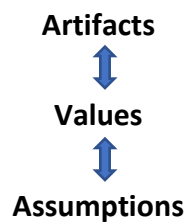


Figure 3.3: Culture model (Schein, 1985, cited by Hatch 1993 p.659)

Kezar and Eckel, (2002) highlighted that since Schein (1985), organisational researchers changed their focus on culture from being a descriptive device to one that could be linked to improvement and organisational success. In relation to higher education literature, two links between culture and change have been made, the first literature suggests that institutions need to have a culture that encourages change (Curry, 1992), the second set of literature (e.g. Schein, 1985) suggests that culture is modified because of the change process (Kezar and Eckel, (2002).

Focusing on culture within higher education, Bergquist (1992) outlined four component cultures. According to Neumann and Bergquist (1994), the first is a collegial culture which emphasises discipline-based scholarship and research, professional autonomy, consensual

faculty governance and a charismatic peer leadership. Managerial culture is the second component culture which focuses on educational goals and outcomes, organisational efficiency, accountability and administrative leadership. The third culture is developmental culture which focuses on improving teaching and learning, organisational and personal dynamics and strengthening the institutional mission. Arising from a response to managerial culture, the fourth culture is negotiating culture concerning equity and egalitarianism in faculty life. While Bergquist (1992) highlights the diverse nature of culture and sub-cultures within higher education and the tensions between collegial and management cultures, it lacks empirical foundation (Neumann and Bergquist (1994). Kezar and Eckel, (2002) argue that although Bergquist's framework provides a lens for examining the effect of institutional culture on change strategies (p239), they adapted a second framework called the Tierney framework to help address the complexities of individual institutional cultures. This framework includes analysis using six categories in depth which are environment, mission, socialisation, information, strategy and leadership. However, it is not clear how this framework caters for emergent creativity or innovation.

More recently, Schein & Schein (2016) emphasise that leadership and culture formation are two sides of the same coin, and that the role of leadership changes with the growth and development of an organisation. In relation to assessing organisational culture, Schein and Schein (2016) believe that Cameron and Quinn's Organisational Culture Assessment Instrument (OCAI) based on a competing values framework (Cameron and Quinn, 2011), represents an interesting culture model. What they find most compelling about OCAI is the language and metaphors used to define culture ('clan,' 'adhocracy,' 'hierarchy,' or 'market'), which they believe makes sense and helps describe the human experience. In relation to change in the context of technological complexity and cultural diversity, they argue that as task complexity and systemic interdependency increases, change becomes perpetual and that new beliefs, values, and behaviour should be thought of as adaptive moves rather than solutions to problems. This suggests that culture evolves over time through change.

Nurdiana et al. (2019) discussed organisational culture in higher education from a cultural research perspective and identified the OCAI as the most common framework for organisational cultural research in HEIs. They also identified a relationship between cultural

types and organisational effectiveness and that cultural types are more important than a strong or weak culture (Smart et al., 1997 cited by Nurdiana et al., 2019, p.885). While culture has been identified as a key topic relating to both change and leadership, the OCAI culture types of clan, adhocracy, hierarchy and market resonate with the literature reviewed where working together and creativity are important while also dealing with hierarchical and neoliberal market forces. Therefore, the OCAI has been identified as the most suitable tool to assess culture in this study.

Cameron and Quinn (2011) point out that the OCAI is based on the competing values framework theoretical model, now the dominant framework for assessing organisational culture globally. This framework, initially developed from research conducted on the main indicators for effective organisations, can be used to diagnose and facilitate change in organisational culture and was empirically derived. OCAI respondents provide scores for different culture types for both the current and preferred culture. Figure 3.4 below shows the competing values framework for leadership effectiveness, which is of interest in this study. The four major culture types are illustrated. Each culture has a leadership type, value, drivers, and theory of effectiveness listed. The framework has two major dimensions. One dimension differentiates effectiveness criteria based on flexibility, discretion and dynamism versus stability, order, and control. The other emphasises an internal orientation, integration and unity versus external orientation, differentiation, and rivalry (Cameron and Quinn, 2011).

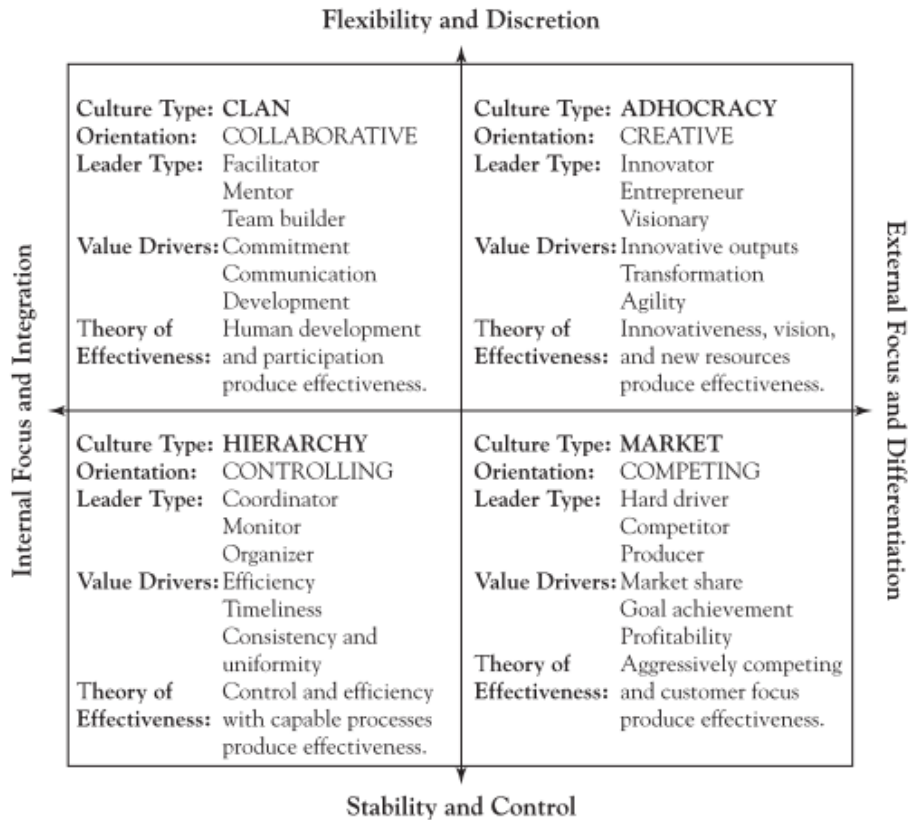


Figure 3.4: Competing Values Framework (Cameron & Quinn 2011)

Gorzelany et al. (2021) suggest that this framework allows for managers to make choices to reflect internal tensions in the organisation. These choices are associated with internal versus external focus and control versus flexibility. They say that this gives rise to four culture types as follows:

- Adhocracy (create) culture has a dynamic and creative work environment where employees take risks and innovative solutions are introduced by leaders.
- Clan (collaboration) culture is flexible and internally focused on maintenance and relationship building through the creation of a friendly, family-like atmosphere where leaders are like mentors.
- Market (compete) culture is characterised by control and external maintenance resulting in competitive behaviour. Results and completion of tasks are the primary focus where leaders take essential decisions themselves.

- Hierarchy (control) culture ensures smooth operation, with a formalised and structured work environment where people follow procedure.

Literature shows that HEIs have unique cultures in terms of the competing values framework and that some culture types relate to each other. For example, Nurdiana et al. (2019) outlined a case where a polytechnical had a dominant bureaucratic culture, while most people wanted a clan culture. Another case was discussed, where a clan culture appeared to be an effective means of fostering innovation. In their research on four European countries, Gorzelany et al. (2021) highlight that Polish and Austrian universities are dominated by hierarchy and market cultures, while German and Ukrainian universities have all culture types, with clan and adhocracy being the dominant ones. They also believe that Polish universities focus on stability which does not promote change, innovation, and growth, while German and Austrian universities are more innovative and exhibit market, adhocracy, and clan cultures. Out of all four universities studied, market culture was weakest, which they argue harms university innovativeness. In addition, adhocracy culture was least visible but does contribute to university innovativeness the most. This research by Gorzelany et al. (2021) has provided insights into the diverse culture of HEIs in different countries. As the OCAI (and competing values framework) has been identified as a suitable tool for assessing current and preferred organisational culture in this study, these articles can facilitate comparisons between these countries and Ireland.

Change

The systematic literature review uncovered many different change drivers that are resulting in change for HEIs. While many of these change drivers could be seen as positive, where they prepare students for a more globalised, innovative, and technological advanced world with a stronger appreciation for sustainability, negative changes may also arise because of resource constraints and financial pressures discussed in section 1.2. While HEIs need to respond to its environment to survive and adapt its culture (Phillips and Snodgrass, 2022), this study will use the OCAI (discussed in the previous section) to assess organisational culture and provide insights into how all types of change are being initiated and what types of change are being prioritised by the organisation.

However, the concept of change and its dynamics in higher education was underdeveloped in the systematic literature review. While innovation was identified as relevant when investigating change and leadership (Howells et al., 2014; Murphy, 2010), Mukaram et al. (2021) highlight the importance of organisational learning capability to implement change processes. Resonating with the topic of innovation, they say a learning organisation is open to new ideas and experimentation through its collaborative and communicative capacity. Dee and Leisyte (2017) concur and believe that university managers and academics can view organisational change as a learning process, involving the creating and movement of knowledge. This may require the development of new structures with rich communication. However, they argue that high levels of specialisation and decentralisation can disrupt learning and may be a one reason why change initiatives often fail in HEIs. Given that learning capability can help facilitate change and is also important in higher education, both from a student and staff perspective, this topic will be important in this study.

Higgs and Rowland (2005) categorised contextual variables of change as history, scope, complexity, magnitude, time scale, source and whether the change was team or individually led. Since then, Kuipers et al. (2014) carried out a literature review on change in public sector organisations and identified three orders of change: sub-system change (first order), organization change (second order), and sector change (third order). They also distinguish between incremental and radical change as well as planned and emergent change. Van Der Voet (2014a) studied change in the public sector and suggests that planned change is led by the top downwards where managers are driving the change, while the emergent approach to change is a more devolved, bottom-up way to implement change that managers facilitate (Table 3.2).

Table 3.2: Planned and emergent change (Van der Voet, 2014a)

	Planned change	Emergent change
Direction of change process	Top-down	Bottom-up
Objectives of change	Objectives are formulated in detail at the beginning of the change process	Objectives of change are open ended, although a general direction is known
Emphasis on	Content of change	Process of change
Role of management	Driver of change	Facilitator of change
Role of employees	Passive recipients	Active participants
Scope	Change is programmatic and organization-wide	Local differentiation between departments may exist

Watson and Watson (2013) argue that higher education requires a systemic change, which applies systems thinking and systems theory, to change a complex system to a new paradigm. Six core requirements of a truly systemic or transformational systemic change are altering the institutions culture, affects the entire institution, is intentional, occurs over time, continuously pursues an idealised future state, and significantly transforms the current system into a new paradigm (cited by Bromage, 2006). This type of transformational change could represent the merging of the three IOTs to form a new TU and reinforces the importance of culture in this study.

Kang et al. (2022) state that teleological models of change are common outside of higher education, characterised by a pre-planned, top-down approach with a clear vision from the start. Given the autonomy of faculty staff, they argue that this approach may not be effective. This supports a more distributed approach to change which emerged from the previous literature review (Bolden et al., 2009; Choi et al., 2011; Lazaridou, 2019; Mukaram, 2021).

Literature on change identifies multiple forms and dynamics of change. In this study, the transformation into a TU could be seen as the biggest change in progress and could be classified as a planned change (Van der Voet, 2014a) and potentially a systemic change (Watson and Watson, 2013). Given that this change is at an organisational level, it could also be interpreted as a second order change (Kuipers et al., 2014). Moreover, as all IOTs merge

to form new TUs, one could argue that the change is also at third order also (sectoral level change). Research would suggest that this type of change would be led from the top. However, given that this change is at its early stage and is only one type of change, the focus of this research will include all types of changes occurring in the emerging TU. This will ensure a holistic approach is taken to embrace various change drivers and both emergent and planned changes of different scales. Doing so should represent the complex challenges facing leaders in Higher Education at present.

Change management

While the systematic literature review targeted articles in change and leadership, there was little reference to change management, even though it is relevant for leading change in higher education. This may indicate that it is not well developed in higher education. While strategic planning relates to strategic thinking at an organisational/ systems level (Burrell and Rahim, 2010), change management encompasses both planning and implementation of all types of change and has been defined as a process of identifying where you are, where you want to go and planning the route between and is closely related to a problem-solving process (Pundyke, 2020). In the context of mergers in both public and private organisations, Holten, Hancock and Bollingtoft (2019) argue that both change leadership (informing, communicating, involving, and supporting) as well as change management are needed to predict positive change experiences and change consequences. Hence, change management is very relevant to this study.

According to Gelaidan et al. (2018), 70% of all major changes fail, due to the *'lack of strategy and vision, lack of management commitment and support, lack of trust, ineffective communication plans, lack of change management skills, and strong resistance to change.'* When we look specifically at higher education, Chow (2013) highlights the importance of compromise, consensus building and proceeding slowly with change. Waring (2017) also makes a case for incrementalism by making small shifts and building commitment gradually, while Lazaridou (2019) distinguishes between technical and adaptive changes. Therefore, building consensus and commitment as well as making change incrementally is important for this research.

Van Der Voet (2014b) indicates that in the public sector, there is a strong relationship between a direct supervisor's change leadership and the commitment of change for change recipients. This is further supported in the context of public sector schools (Guerrero et al., 2018; Hechanova et al., 2018). Higgs and Rowland (2000) developed a change management competency framework and assessment tool, which is outlined in Table 3.3 below, and argue that by focusing on change implementation, a real understanding of key competencies will be gained that are needed to build change capability within an organisation. Higgs and Rowland (2000) said they applied their change management competencies in practice and had a real impact on the development of change capability in an organisation. The eight competencies deal with the initiation of change, determining its impact, facilitating the change with stakeholders, leading change, ability to develop individual and group capabilities, executing the change, commitment to change and the use of change technology and theory. Many of these competencies align with previous ones identified by authors. For example, change facilitation (Jones and Harvey 2017; Waring, 2017), change leadership (Magsaysay and Hechanova, 2017), change learning (Dee and Leisyte, 2017; Fullan, 2020; Mukaram et al., 2021), change initiation, impact, execution. and change technology (Holten, Hancock and Bollingtoft, 2020; Gelaidan et al., 2018) and change presence (Gebretsadik, 2022; Gelaidan et al., 2018; Murphy, 2010). Hence, these eight competencies are considered important for this research which aims to gain insights into change leadership characteristics.

Table 3.3: Change management competencies
(Higgs & Rowland, 2000, p.124)

-
1. *Change Initiation* (CIN); ability to create the case for change and secure credible sponsorship
 2. *Change Impact* (CIM); ability to scope the breadth, depth, sustainability and returns of a change strategy
 3. *Change Facilitation* (CF); ability to help others, through effective facilitation, to gain insight into the human dynamics of change and to develop the confidence to achieve the change goals
 4. *Change Leadership* (CL); ability to influence and enthuse others, through personal advocacy, vision and drive, and to access resources to build a solid platform for change.
 5. *Change Learning* (CLE); ability to scan, reflect and identify learning and ensure insights are used to develop individual, group and organisational capabilities
 6. *Change Execution* (CEX); ability to formulate and guide the implementation of a credible change plan with appropriate goals, resources, metrics and review mechanisms
 7. *Change Presence* (CP); demonstrates high personal commitment to achievement of change goals through integrity and courage, while maintaining objectivity and individual resilience ('a non-anxious presence in a sea of anxiety')
 8. *Change Technology* (CT); knowledge, generation and skilful application of change theories, tools and processes
-

Developing their research further, Higgs and Rowland (2005) found that change approaches that were linear based were unsuccessful from a participant perspective, while those assumed to be complex were most successful. They proposed three categories of leadership which are shaping behaviour, framing change, and creating capacity. This resonates with Howells et al. (2014) and Fullan (2020). Therefore, these themes will be considered further in this research.

Change Management Models

In the systematic literature review, two prominent change management models were identified. These are the Kotter (2012) change process, cited by Dahlvig (2018) and Gebretsadik (2022), as well as the Lewin (1947) three step model, cited by Gelaidan et al. (2018) and Waisy and Wei (2020). Kang et al. (2022) documented a successful change process in an academic department using Kotter's eight step change model. Although this is often interpreted as a linear, sequential change process not ideally suited to complex change (Higgs and Rowland, 2005), Kang et al. implemented it iteratively and emergently. Figure 3.5 below proposes a framework for guiding university change processes that merged design-based implementation research with Kotter's change model. Kang et al. (2022) believe that the shortcoming of Kotter's model such as its linear nature is addressed

through the iterative nature of the proposed change process and is important due to the autonomy of faculty staff. This literature is relevant for this study as it strengthens the relevance of the Kotter model for higher education, identified in the systematic literature review (Dahlvig, 2018). It promotes a more iterative approach to the change model, which is more collaborative in line with Kang et al. (2022) and supports a more disturbed leadership style in higher education (Waring, 2017; Jones and Harvey, 2017). A more iterative approach also addresses findings for complex change by Higgs and Rowland (2005). However, although this model is useful, it doesn't fully address important areas identified by other researchers regarding building capability and learning (Mukaram et al., 2021, Dee and Leisyte, 2017) or the importance of relationships (Chow, 2013; Devecchi et al., 2018; Fullan, 2020). However, it does provide a logical approach to leading and managing change and will be considered further for this study.

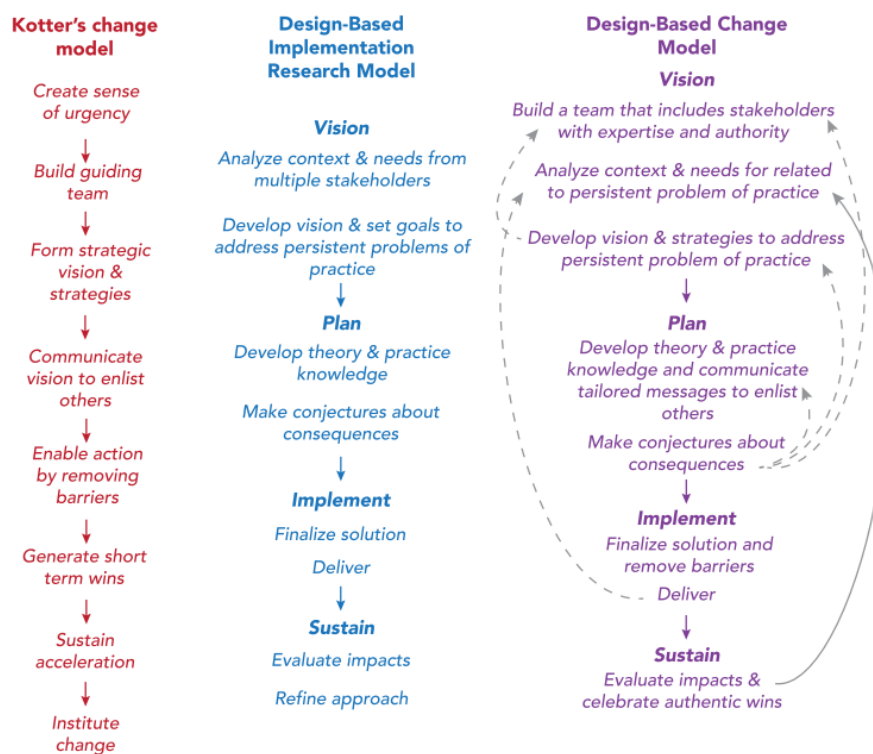


Figure 3.5: A framework for guiding university change processes (Kang et al. 2022)

While Lewin's 3 step model was also identified as relevant to higher education in the systematic literature review (Gelaidan et al., 2018), Burnes (2004) outlined the significance

of Lewin’s 3 step model to organisational change, which focuses on planned change. The model involves unfreezing the quasi-stationary equilibrium of an organisation by reducing complacency and stirring up emotion, then moving through action research-based learning, followed by refreezing to stabilise the new behaviours from regression. In their study, Hussain et al. (2018) indicates the dominant role of leadership, employee involvement and sharing knowledge in change process of Lewin’s model. While Burnes (2004) suggests that many researchers may consider Lewin’s model out-dated when compared to complexity theorists, Burnes believes that Lewin’s focus on self-organising groups and teams was like the change advocated by complexity theorists. Moreover, Burnes argues that to utilise a complexity approach to leadership and change, then Lewin’s model may be needed to implement it.

More recently, Burnes (2020) argued that Lewin’s model is a well-developed approach, initially developed to resolve social conflict through democratic decision making. Figure 3.6 shows his interpretation of the Lewin’s three step model, which incorporates an interactive approach. Although this theory doesn’t have a clearly defined approach to leading change like Kotter (2012), this theory is central to change management and resonates with complex, social changes that involve collaboration. Hence, the Lewin 3 step model is important for this study.

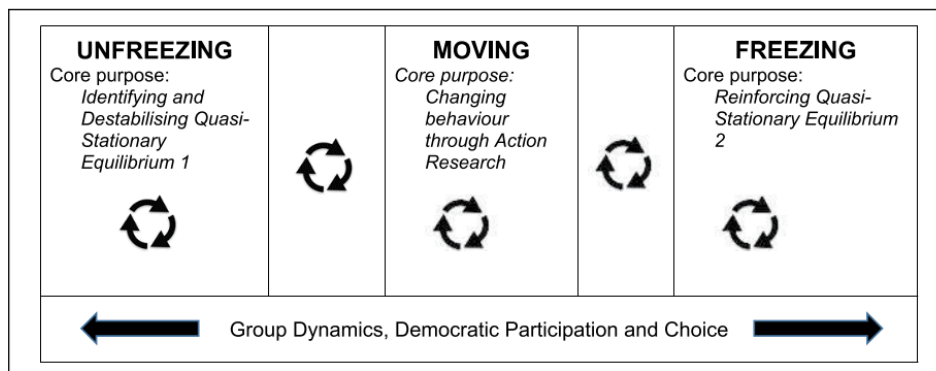


Figure 3.6: A field theory- based view of Lewin’s three-step model (Burnes, 2020 p.49)

In the book titled ‘The Manager as Change Leader’ by Gilley (2005), practical insights into change leadership are provided. Building upon the work done by Kotter and Lewin, a

comprehensive model for change is provided. Although this book may have been written with corporations in mind, it highlights the various roles and responsibilities of a change leader such as being a visionary, inspirer, supporter, problem solver and change manager. Gilley et al. (2009) also studied leadership effectiveness in driving change and discovered that motivation, communication and building teams are key leadership behaviours. As this work by Gilley (2005) provides new insights and consolidates change leadership characteristics across the Lewin and Kotter models, it will be considered further for this research from a change leadership characteristics perspective.

Devecchi et al. (2018) utilised a model for change called the Burke and Litwin (1992) causal model of organisational performance and change. This model has been used in higher education by other authors also (e.g. Ginniver, 2018). The model includes causal linkages or connections between transformational, transactional, and individual factors to demonstrate their interrelationships and how performance is affected, and organisational change occurs. Based on open systems theory, Burke and Litwin (1992) argued that transformational change occurs as a response to the external environment and that transformational factors such as mission, culture and leadership are more important for external influences. These transformational factors then affect transactional factors such as structure, systems, management practices and climate and overall individual motivation is impacted which ultimately influences individual and organisational performance. See Figure 3.7 which outlines these relationships and highlights the nature of leadership being more concerned with strategic factors while management relates mainly to operational factors. While this model may cater for transformational related change through a more hierarchical positional leadership approach, it is not clear how it facilitates emergent change and a more distributed leadership approach that is prevalent in higher educational literature. Although the full value of applying this model to organisational change in higher education may not be evident in literature, it is interesting for this study as it helps consolidate the previously developed topics of change drivers, leadership, culture, management, and links them to human factors that are relevant for change such as relationships.

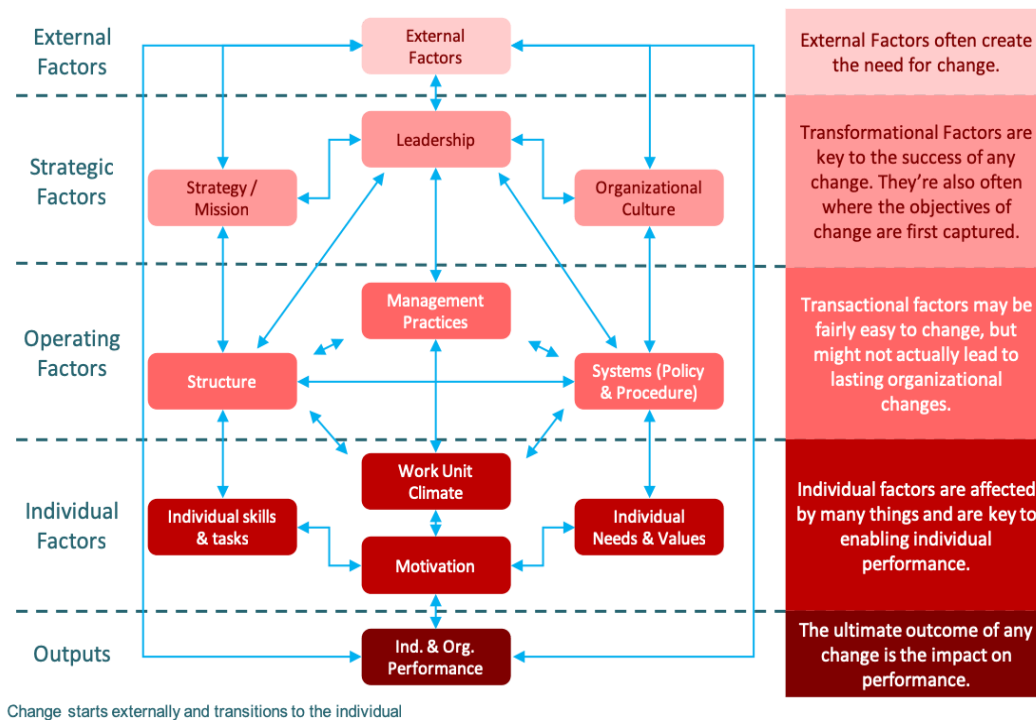


Figure 3.7: Burke-Litwin Model (The world of work project, 2023)

Change leadership

There is growing evidence that the role of leadership is significant in successful change implementation (Kotter, 2012). In the systematic literature review, a more distributed approach to change emerged (Bolden et al., 2009; Choi et al., 2011; Lazaridou, 2019; Mukaram, 2021), but there were only a few references to change leadership (Drew, 2010; Gebretsadik, 2022; Ramezani et al., 2022, Tjeldvoll, 2011). Ford and Ford (2012, p.1) argue that *'leadership of change is more complex than envisioned, involving multiple forms of leadership engaged in different approaches, behaviours, and activities, only some of which are effective.'* They note that some literature focuses on a leadership perspective where only one person is attributed the status of leader, while a more distributed leadership approach encompasses patterns or varieties of leadership involving multiple people. Ford and Ford (2012) highlight that most changes are beyond the capacity of any single individual to deliver and that a more distributed approach to leadership needs to be developed for leading change, which supports literature on leadership approaches previously discussed in section 3.2.

Van der Voet (2014a) believes that research relating to the importance of leadership in organisational change takes two approaches. The first approach focuses on behaviours that leaders can use to successfully implement change. The second approach identifies the styles of leadership that can lead to desirable organisational outcomes during times of organisational development and change. In his own research, the term change leadership is used more generally and refers to the leadership behaviours that are present in organisational change. He argues this definition encompasses all types of change, both planned and emerging change, as outlined previously in Table 3.2. While this study will take a broad approach to change types, change dynamics and multiple stakeholders, leadership behaviours or characteristics that are present during change will be assessed.

Referring to Table 3.4 below, Magsaysay and Hechanova (2017) developed a schema for change leadership, which identified characteristics that were categorised into strategic, technical, execution, social, character and resilience. Based in private companies in the Philippines, their research shows that the closer the similarity between the staff's ideal change leader and their actual leader, the greater the perceived effectiveness of change management. This resonates with Ladkin and Probert (2021) who argue that exhibiting follower centric implicit leadership leads in getting endorsed by followers. This finding suggests that the presence and importance of change leadership characteristics is a central factor when researching change and will be incorporated into this study and will be discussed further in the next section.

Table 3.4: Implicit change leadership schemas
(Magsaysay & Hechanova, 2017)

Category	Competencies and characteristics	
Strategic and technical	Proactive	Innovative and creative
	Open-minded	Analytical
	Strategic visionary	Knowledgeable
Execution	Decisive	Action/result oriented
	Inspiring	Drives execution and accountability
	Persuasive	
	Strong-willed	Hardworking (not lazy)
	Effective coach/mentor	Not a micromanager
Social	Supportive	People oriented
	Empathetic	Effective communicator
	Participatory	Shows trust in people
	Approachable	Not bossy
Character	Honest	Credible/respected
	Leads by example	
Resilience	Positive, optimistic	Composed under pressure
	Adaptable, flexible	Not emotional or sensitive

This research by Magsaysay and Hechanova (2017) is further developed by Guerrero et al., (2018) for a secondary school where it was found that teachers have a more holistic and integrative view of change leadership than employees of business schools. As literature on change leadership in an educational setting is very limited, Guerrero et al. (2018) provides insights specific for educational organisations and is more relevant to this study. Hechanova et al. (2018) argues that change leadership characteristics are dependent on the context, and social competencies (such as being supportive, empathetic and approachable) are influential to successful change in an academic setting.

Having interviewed senior leaders in one Australian university, Drew (2010) found that the most significant challenges for leading change centred on the need for strategic leadership, flexibility, creativity, and change-capability as well as responding to competing tensions and remaining relevant. He also highlighted the challenge associated with maintaining academic quality as well as managing fiscal and people resources, and that sound interpersonal engagement is critical for change leadership.

More recently, Devecchi et al. (2018) carried out a broad study across UK HEIs on the topic of leading change and argue that leadership requires communication, vision, strategy for change as well as an inclusive and empathetic approach. They highlight that cross functional

collaboration is important to develop trust and relationships and facilitate change and creativity. They believe that leaders should resource these types of activities and provide the required time and space to do them. These findings are interesting for this study as they provide recent practice-based insights to change leadership nearly, in the UK.

Focusing on the educational sector, Fullan (2020) created a change leadership framework for leading complex change and breaks change leadership down into five key components: moral purpose, understanding change, building relationships, knowledge building and deep learning as well as coherence making which will now be discussed. Moral purpose means to seek to make a positive difference for all internal and external stakeholders, and Fullan (2020) argues that *'as questions of our planet's morality loom larger and more evident, the link between moral purpose of our institutions and our own individual well-being become more intertwined.'* This resonates with sustainability as a change driver (section 3.2).

Understanding change relates to leaders who have a respect for the complexities of change processes and the human dimension. Fullan (2020) also argues that building relationships through collaboration, and teamwork with diverse people is central to successful change initiatives. This supports previous findings from Chow (2013) that relationships and the human dimension is important for change. Supporting Mukaram et al. (2021) who previously highlighted the importance of organisational learning capability, Fullan (2020) argues that creating and sharing knowledge is important and this is facilitated through deep learning in the pursuit of knowledge and problem solving. Coherence making is another key element to change leadership, which involves aligning goals and strategic plans (Fullan, 2020) and supports previous findings from Howells et al. (2014). Moreover, Fullan identifies personal characteristics of energy, courage, and relentlessness that all effective leaders possess. While Fullan's model resonates with other researchers in this study, it will be further considered for compiling change leadership characteristics.

Change leadership characteristics

Although some leadership characteristics were identified through the systematic literature review, there was little consensus. However, additional reading specifically in change leadership in the previous section, uncovered many additional characteristics relevant for this study. Change leadership characteristics will now be examined and synthesised from literature. (They will later be used in this research to assess their importance and presence at the emerging TU.)

Given that the topic of change leadership characteristics is not well developed in literature, a diverse selection of sources has been chosen to compile a total of 25 characteristics deemed important for leading change. These embrace key findings from change management and change leadership fields of research as well as the Burke Litwin organisational change model. These characteristics were created from a total of eight sources identified, which were analysed and mapped against each other as outlined in Appendix 2. The eight sources have been previously discussed and come from a diverse range of sectors including both public and private sectors. They are outlined as follows: Higgs and Rowland (2000), Gilley (2005), Fullan (2020), Magsaysay and Hechanova (2017), Guerrero et al. (2018), Burke and Litwin (1992), Burnes (2020) and Kotter (2012). They have been grouped into themes of strategy, culture, relationships, capability, and tactics and the two most influential academic sources are listed for each characteristic.

Capability

This first theme of capability relates to overall capability of staff in terms of change management skills, leadership knowledge and abilities, resources, and training. While power is associated with knowledge and expertise (Lumby, 2019), sharing knowledge and expertise empowers staff. The following are the characteristics related to this theme:

1. Possess the required knowledge and application of change theories, tools, and processes (Gilley, 2005; Guerrero et al., 2018).
2. Provide adequate resources to facilitate and embed change (Gilley, 2005; Guerrero et al., 2018).

3. Share knowledge and invest in continuous professional development to strengthen individual, group and organisational capabilities (Fullan, 2020; Higgs and Rowland, 2000).
4. Ensure staff are sufficiently trained to enable them to embrace current and future changes (Guerrero et al., 2018; Higgs and Rowland, 2000).
5. Put in place procedures and systems to embed the change into the organisation (Gilley, 2005; Guerrero et al., 2018).
6. Delegate appropriate responsibility (Kotter, 2012; Burnes, 2020).

Culture

Cultivating a change culture is important for change leaders so that an inclusive, supportive, and democratic culture develops sufficiently that encourages creativity and innovative, while being able to deal with conflict in a constructive way. Power is linked to culture as the cultural context can influence people's openness to choose to do certain things voluntarily (Luby, 2019), thus reducing resistance or conflict. The following are the characteristics related to this theme:

7. Accept that conflict is part of the change process and resolve it effectively in a constructive way (Burnes, 2020; Magsaysay and Hechanova 2017).
8. Encourage creativity and innovation and support a 'no blame' culture (Gilley, 2005; Fullan, 2020).
9. Develop a culture of trust, democracy, and inclusion (Magsaysay and Hechanova 2017; Burnes, 2020).
10. Be committed to achieving the change through integrity and courage, while maintaining openness and persistence (Gilley, 2005; Burnes, 2020).

Relationships

While power works through relationships and interactions of people and contexts (Ladkin and Probert, 2021), the theme of relationships relates to developing and maintaining relationships with colleagues, building effective teams, rewarding staff, and celebrating milestones. The following are the characteristics related to this theme:

11. Build a credible team from diverse backgrounds across the organisation, to drive the change (Fullan, 2020; Kotter, 2012).
12. Involve staff from all levels in the change process from early on (Gilley, 2005; Burnes, 2020).
13. Develop and maintain relationships with staff and other stakeholders (Fullan, 2020; Magsaysay and Hechanova, 2017).
14. Reward and recognise staff for their contributions to change (Gilley 2005, Fullan, 2020).
15. Celebrate short term and long-term wins/successes (Kotter, 2012; Gilley, 2005).

Strategy

Strategic thinking allows a clear vision to be established that inspires individuals to change and is associated with positional power and authority. This is achieved through effective communication and consultation, while understanding that change can be complex. The following are the characteristics related to this theme:

16. Create the case for change and secure credible support from senior management (Higgs and Rowland, 2000; Burnes 2020).
17. Scope out the impact and sustainability of the change (Higgs and Rowland, 2000; Burnes 2020).
18. Understand that change can be complex and not straightforward (Gilley, 2005; Fullan 2020).
19. Establish a clear vision for the change (Kotter, 2012; Higgs and Rowland, 2000).
20. Inspire individuals across the organisation to accept that change is needed (Guerrero et al., 2018; Kotter, 2012).
21. Communicate and consult effectively so that any concerns are identified, and staff understand benefits of change (Magsaysay and Hechanova, 2017; Guerrero et al., 2018).

Tactics

Supportive tactics are needed from change leaders to implement changes, including developing plans, removing barriers, implementing change gradually, and dealing effectively with organisational resistance to change. While resistance can be seen as a flow of power in the opposite direction (Ball and Olmedo, 2012), resistance can arise especially to external

controls to protect individual autonomy and in academic environments with autonomous independent thinking scholars (Luby, 2019). The following are the characteristics related to this theme

22. Develop and implement a credible change plan with appropriate goals, resources, metrics, and review mechanisms (Higgs and Rowland, 2000; Magsaysay and Hechanova 2017).
23. Identify and remove barriers that may slow down or prevent change (Burnes, 2020; Gilley, 2005).
24. Implement change incrementally to allow for the organisation to adapt and cope (Gilley, 2005; Guerrero et al., 2018).
25. Assess and deal effectively with individual and organisational resistance to change (Burnes, 2020; Gilley, 2005).

3.4 Gaps in literature

Having completed a systematic literature review, additional reading was required in related areas to get a broader and deeper understanding of areas such as culture, change, change management, change leadership and its characteristics. Although various change drivers and contextual factors have been identified in literature (section 3.2), it is unclear how these relate to change and leadership. Culture and staff were also identified as being an important for change and leadership. While the Organisational Culture Assessment Instrument (OCAI) with the competing values framework by Cameron and Quinn (2011) is a common framework for assessing culture in higher education (Nurdiana et al. (2019), no research was found on Irish HEI culture. Although staff are central to change (section 3.2), there is a lack of understanding of staff perceptions on change and leadership in Irish HEIs.

While various challenges associated with leading change in TUs were discussed in Chapter two, (section 2.6), it is still unclear from the literature review what the key challenges are relating to leading change in HEIs. Finally, many diverse change leadership characteristics have been discussed in literature, but very few characteristics have been discovered that relate specifically to higher education. This overall literature review has allowed for change leadership characteristics to be synthesised from diverse sources. In total, 25 characteristics

have been compiled under the themes of capability, culture, relationships, strategy, and tactics. While both the importance and presence of change leadership characteristics are important factors for change (Magsaysay and Hechanova, 2017), it is unclear how important or present change leadership characteristics are in Irish HEIs. The main objective of this research is to address all the above research gaps and gain a deeper understanding of how stakeholders experience and value change leadership in higher education. Furthermore, the systematic literature review suggested that existing literature is weak in the instrumental knowledge domain (Gunter, 2016) and a mixed methods approach has not been used, so taking this approach for future study would make a valuable contribution to existing knowledge also.

3.5 Insights from complexity theory

Introduction

In the literature review section 3.2, various theories or frameworks were referenced in relation to change. Kohtamaki (2018) utilised resource dependent theory to help understand organisational behaviour and strategic management, but this theory is more leadership focused and it is unclear how it can help with understanding change. Other theories discussed include the Kotter (2012) change process, cited by Dahlvig (2018) and Gebretsadik (2022), as well as the Lewin (1947) three step model, cited by Gelaidan et al. (2018) and Waisy and Wei (2020). While the various limitations of the Kotter (2012) and Lewin (1947) models and the model from Burke and Litwin (1992) were discussed previously in section 3.3 and considered as a theoretical framework for this study, complexity theory (referenced by Laxaridou, 2017) was deemed the most appropriate theory to cater for the specific research questions in this study. (This will be further discussed later in the theoretical framework section 3.6) In the following sections, complexity theory will be introduced and examined to demonstrate how it has provided insights and informed change leadership literature. The concepts of complex adaptive systems, emergence, and complexity leadership will then be introduced as central concepts of this study.

The literature review in section 3.2 identified that higher education has multiple change drivers, diverse cultures and various leadership approaches and characteristics.

Unsurprisingly many of those discussed 'complexity' (e.g., Lazaridou 2019; Drew, 2010). While examining complexity, education and change, Byrne (1998) states that the meaning of the word 'complex' cannot be easily established but is relevant to social science data, which are structured hierarchically, reflecting the nature of the social world and the dynamic and non-linear character of systems that are far from equilibrium. Building on the topic of complexity, Barnett (2000) argues that the modern world is in fact supercomplex in character, where multiple and often competing frameworks are used to help understand it. While knowledge is important to universities, he suggests that universities may have new knowledge functions such as offering new frames of understanding, help make sense of resulting knowledge and enable people to live amid supercomplexity. Through this study, it is hoped that a framework can be developed to help understand complexity associated with leading change in higher education. Complexity theorists argue that many forces drive complexity, and the underlying factors are greater interconnectivity and redistribution of power resulting from information flows that are facilitating people to link up and drive change in unprecedented ways (Uhl-Bien and Arena, 2018). This relates to Kohtamaki (2019) who argued that academics are careful with the use of power and focus on trust and relationships. In addition, the redistribution of power suggests a more pluralist approach to leadership within complexity theory, where power cannot be at the hand of a single person and is a social phenomenon (Kaldybekov et al., 2023). Overall, complexity theory appears to resonate with several change leadership characteristics discussed in the previous section, where relationships, teamwork and involvement are important for change (Fullan, 2020; Kotter, 2012; Gilley, 2005; Burnes, 2020).

Mason (2008a) states that complexity theory can provide descriptive and pragmatic insights well suited to educationalists and argues that complexity theory's strength is that it draws existing educational leadership and management theory together using existing and familiar concepts. From a review of the most cited literature relating to complexity theory and leadership practice across all sectors, Rosenhead et al. (2019) states that complexity theory is a developing field that evolved from holism, systems theory, and chaos theory and has been used regularly as a conceptual framework to inform organisational practice. Over the last 20 years, complexity theory has been researched in the areas of management and more

recently the areas of school leadership (Morrison 2010). Based on existing literature on change leadership, it became evident that complexity theory can offer valuable thinking tools for this study.

Complex adaptive systems and emergence

Mason (2008a) outlines that complexity theory provides useful insights into the field of education and the nature of continuity and change, and looks at complex systems as open systems, which survive through evolution and adaptation. Relevant to higher education, he argues that organisations are complex, with many connected elements or agents, which facilitate the sharing of knowledge through formal bureaucratic structures and informal social networks. From my experience in higher education, the growing neoliberal influences outlined in Chapter two are resulting in survival being very relevant, especially in the context of financial constraints and pressures. Furthermore, while HEIs are knowledge producers, I think both formal and informal networks are important, not only for creating new knowledge through formal research, but also to help empower staff to address neoliberal external pressures.

Mason (2008b) argues that the dynamics of complex systems is transformative through continual reorganisation and emergence, and that complexity theory can be used for comprehension and explanation. Developing the concept of complex systems based on corporate organisations, Uhl-Bien and Arena (2018) describe a complex adaptive system as an adaptive system able to evolve with a changing environment and that organisations need to respond and be adaptive to their environment by engaging networks and facilitating emergent changes. While these ideas from corporate based literature align with educational based literature (Mason, 2008a, 2008b; Morrison 2010), HEIs can be perceived as complex adaptive systems that are evolving through change to survive in an increasingly competitive market where education is getting more marketised. As a result, complex adaptive systems and networks will be key concepts in this research.

Mason (2008b) defines emergence as going from low level rules to higher level sophistication. For change management, Mason states that to change the inertial momentum of an organisation to a new direction through emergence, change is required at

many different locations, which requires effort and resources and that power in this context can be defined as the directional course that enjoys the dominant inertial momentum. In the context of learning analytics, given that power follows emergent initiatives, this suggests that power needs to be distributed across the organisation through networks to enable emergence, and this can help break down silos in HEIs (Tsai et al, 2019). Mason (2008b) also states that organisations need to empower local networks via decentralised control to innovate and create new knowledge through collaboration, and organisations need to allow space for error. Although Morrison (2010, p385) argues that complexity theory may not adequately explain how *“power is negotiated, circulates through schools, is fluid and is used in a freedom-promoting rather than a freedom-constraining way,”* it does support a more empowered approach to staff engagement that is relevant to HEIs with autonomous and independent thinking staff (Luby, 2019).

Tsai et al. (2019) argue that higher education institutions have diverse organisational relationships, networks and feedback loops that are dynamic and non-linear and consequentially need change management that focuses on emergent, flexible, and adaptable change. The concept of emergence provides insights into the dynamics of change from the ground up. Given that this study will focus on all types of change, the concept of emergence is central to this study. The concept of feedback is a key feature of complexity theory and occurs between interacting elements of a system and can amplify small changes (Cohen et al. 2017, p.27). Byrne (1998) stated that feedback described the consequences of change in a system where self-governing systems typically contain negative feedback or positive feedback, where a change tendency is dampened or reinforced respectively (p172). Hence feedback will be a key concept in this study.

This literature provides some insights into how complexity theory informs higher education organisations about change and leadership from a holistic perspective, and links organisations to their context through emerging change. Complex adaptive systems and emergence have also been introduced as important concepts for this study which can represent HEIs attempting to survive in an increasingly challenging neoliberal context, where emergence is supported through sharing power with staff.

Complexity leadership

When attempting to converge complexity theory with leadership, a broad interpretation of complexity is suggested as *'the study of phenomena, which emerge from a collection of interacting objects'* (Rosenhead et al. 2019, p.2). Complexity leadership (or leadership relevant to a complex adaptive system) rejects individual agency and argues that change *'cannot be achieved through direct control but rather direct influence by formal leaders'* (Rosenhead et al. 2019, p.14). Doyle and Brady (2018) reframe the university as an emergent organisation and review strategic management and leadership implications. They suggest that the emergent paradigm shifts focus from a top-down approach to change, to one that focuses more on communication that brings about change at all levels. While top-down change through creating a vision and mission are still important, they argue that leaders also need to sense emerging opportunities and engage in uncertain processes and focus on local interactions. In the context of complexity, this suggests that leadership needs to take a more all-encompassing, pluralist approach where leaders enable change from both the top down (rational) as well as the bottom up (emergent). Walters (2020) concurs and argues that successful leaders in a complex adaptive system like universities must *"foster, not determine connectivity among diverse agents within a complex network of people, place and conditions."* On reflection as a Head of Department, I concur with this broad understanding of leadership in higher education where it embraces both top-down power dynamics in some cases such as policy influenced change, but also needs to support and facilitate bottom-up change through empowering staff. However, a clear framework for how this can be facilitated in a complex educational environment would be a very valuable asset to help deepen my understanding of my role.

Although many researchers have taken different approaches to complexity leadership, Rosenhead et al. (2019) highlights Uhl-Bien, Marion and McKeveley (2007) developed a complexity leadership framework for corporations, that seeks to balance the emergence of innovation and change, while maintaining some degree of control. Given that higher educational institutes frequently have a strong control/ hierarchal culture (Nurdiana et al., 2019; Gorzelany et al., 2021) this pragmatic perspective on leadership is deemed relevant to

this study and may become an enabler to help understand the complexities involved in leading all types of change in higher education, while also maintain some level of control.

More recently, Uhl-Bien and Arena (2018) synthesised findings from their research and industry practice partnerships and developed a model of complexity leadership (Figure 3.8). Drawing from their work, this study outlines a leadership model that deals with organisational complexity. They suggest that organisations are comprised of two systems; operational systems that push for order, alignment and control and can be found in formal bureaucratic organisational structures; as well as entrepreneurial systems that push for change and occur in the information systems and structures responsible for innovation, growth, and learning. Although no evidence of this model being applied to higher education was identified, it may address concerns from Morrison (2010) who alludes to the pressures on teachers to become more creative *'at the edge of chaos.'* While HEIs may have well developed bureaucratic systems related to its hierarchical culture previously discussed, complexity leadership may give some interesting insights into HEI entrepreneurial systems, which resonate with an adhocracy/ clan culture.

For organisations to be adaptive, Uhl-Bien and Arena (2018, p.12) argue that within complex adaptive systems, there is a need for adaptive space in organisations and these spaces are *'contexts and conditions that enable networked interactions to foster the generation and linking up of novel ideas, innovation and learning in a system.'* They outline two key dynamics that make a complex adaptive system as follows: *'conflicting'* is the tension created when agents bring diverse needs or views to interactions and pressures a system with decentralised power to change; the second dynamic is *'linkages'* that occur when agents find commonality that allows them to bond in relationships and form linkages by tapping into the power of employee networks. These are interesting concepts that may provide insights into power and resistance within the emerging TU.

Another important concept associated with conflicting and linkages is diversity. Pinheiro and Young (2017) argue that diversity can enhance the performance of complex systems and that by increasing organisational diversity, universities are more adaptive and resilient organisations. Doyle and Brady (2018) argue that outcomes arise from the quality of the

interaction taking place and the ability to bring underlying tensions to light and this is dependent on the diversity of those involved in such interactions. This literature strengthens the case for improving equality, diversity and inclusion discussed in Chapter three, not only from an ethical perspective, but also a pragmatic one.

Within this context, Uhl-Bien and Arena (2018) describe three components of complexity leadership needed for organisational adaptability, while dealing with the need to innovate and produce as follows:

- **Operational Leadership** is the formal design and alignment of systems for converting ideas into productive outcomes.
- **Entrepreneurial leadership** to help initiate, iterate and socialise ideas and is the source of new knowledge, innovation, and growth.
- **Enabling leadership** is enabling conditions that support adaptive space and helps balance the tensions between the need to innovate (emergence) and the need to produce (alignment) (Uhl-Bien and Arena, 2018).

As the above three components of complexity leadership help explain the broad leadership interaction to support both emergence and planned alignment, they form a unique holistic leadership approach, and have been identified as central concepts in this study.

In relation to the dynamics of change, Figure 3.8 below from Uhl-Bien and Arena (2018) suggests that new ideas, change and innovation can come from anywhere in the organisation and is developed through entrepreneurial leadership at a local level utilising an entrepreneurial system. These ideas then spread from a local level to a broader level through enabling leadership in an adaptive space. Operational leaders select certain changes and adapt them fully into the organisation through an operational system so that they become the new normal or 'new order.' This change dynamic is emergent, and the organisation goes through iterative cycles of change through the combination of these three leadership types. This dynamic of change resonates with my own personal experiences of change initiatives in higher education. I have facilitated change with colleagues from a bottom-up perspective where the change is first piloted. Once tested and refined, the change was identified as being successful and then spread across the organisation to

become the norm and this takes a more top-down dynamic. Two examples include an annual programme QA review document I piloted in my department as well as the creation of a business development and account coordinator role. Both changes are becoming the norm/ standard.

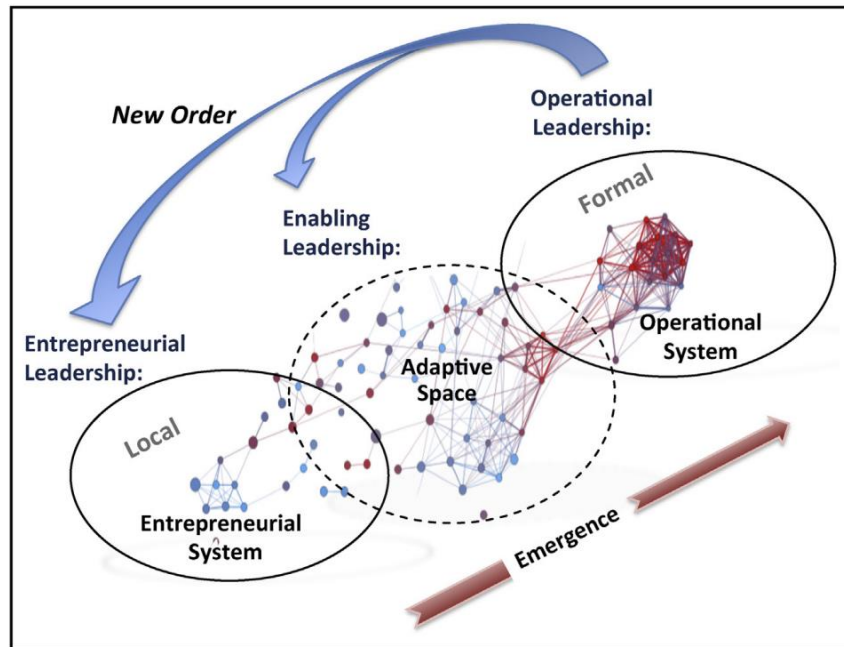


Figure 3.8: The Complexity Leadership Model (Uhl-Bien and Arena, 2018)

Regarding leadership behaviours, Figure 3.9 below from Uhl-Bien and Arena (2018) proposes that entrepreneurial leaders work with cohesive groups and get new ideas initiatives, socialised, and iterated locally with limited resources. They have persistence, patience and are flexible. Enabling leaders on the other hand are often unrecognised as they work behind the scenes and help initiate and facilitate innovation and change by leveraging network structures and complexity dynamics to use the organisational abilities. They link up networks and are comfortable with constructive conflict that is resolved through cohesive teams (Uhl-Bien and Arena, 2018). Finally, operational leaders utilise the operational system to generate efficiency and results by alignment and implementation, and support attempts by entrepreneurial and enabling leaders to drive change into the system. They do so by sponsoring ideas or new ways of doing things and find ways to resource and implement the ideas to improve overall organisational performance. The concepts of alignment and

sponsoring will be used in this study to provide insights into operational leadership activities. Again, these interactions of leading change are familiar from my own practice perspective. Through this complexity leadership literature, my understanding of these interactions is deepening.

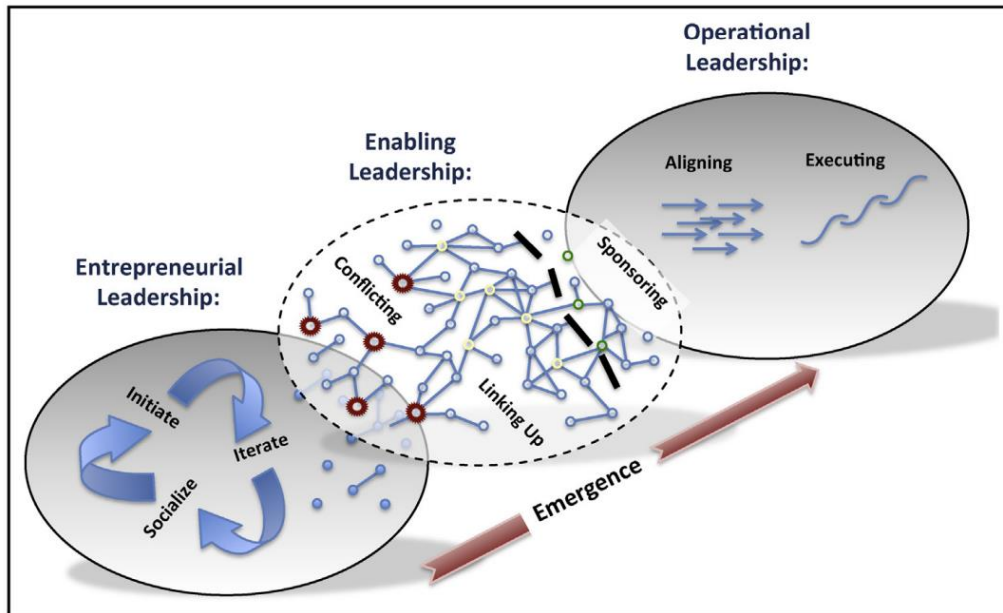


Figure 3.9: Complexity leadership behaviours (Uhl-Bien and Arena, 2018)

Conclusion

Complexity theory is relevant for this study as it provides useful insights into how leadership and change occur in a complex environment. Within complex adaptive systems, organisations evolve to survive and share knowledge, develop networks and linkages, and collaborate to create emergent change (Mason, 2008a, 2008b). For leadership, complexity theory suggests that leaders influence change rather than direct change. They reflect and learn from the consequences of their actions and support openness and democracy to help influence change (Rosenhead et al. 2019). The Uhl-Bien and Arena (2018) model of complexity leadership is central to this research, as it supports emergent change and its adaption through entrepreneurial leadership and enabling leadership. Operational leadership is another component of this model which facilitates change implementation and alignment across the organisation through sponsorship, so that the specific change becomes

the new normal. Given the unique ability to support both emergent and planned change (sponsorship), complexity leadership provides a holistic approach to leading change and is a central concept in this study.

Having provided an overview of complexity theory and complexity leadership, next, complexity theory is presented as a theoretical framework for this study.

3.6 Theoretical framework

According to Imenda (2014) theoretical frameworks provide perspective, which researchers use to explore, interpret, or explain events or behaviour. Furthermore, Grant and Osanloo (2014, p.13) suggest that a theoretical framework *'serves as the guide on which to build and support your study, and also provides the structure to define how you will philosophically, epistemologically, methodologically, and analytically approach the dissertation as a whole.'* Using a pragmatic philosophical paradigm, this study aims to address knowledge gaps in literature associated with change and leadership within the complex environment of higher education. The systematic literature review identified the importance of change drivers, context, and culture for change leadership in higher education. From change leadership literature, key themes of strategy, tactics, relationships, capability, and culture were also identified. Complexity theory resonates with all of these and has potential to be a suitable theoretical framework for this study.

This study focuses on an emerging TU. Given the additional relationships and organisational structures that will be created between the multiple campuses as an outcome of the merging process, it could be assumed that organisational complexity will increase. From personal experience as a manager in this sector, leading and facilitating change is complicated. The main objective for the new TU is to grow and survive in an increasingly globalised world, where education provision is competitive, and organisations need to be adaptive and responsive to their environment. Given complexity theory is about adapting to your environment for survival, complexity theory arguably provides a suitable theoretical framework for this study.

As well as drawing on existing educational leadership theory, Mason (2008a) also suggests that this theory breaks with simple cause and effect models and linear predictability and reductionist approaches to management. Although their change leadership research is not educational specific, Higgs and Rowland (2005) concur, whose work indicates that change processes are complex and non-linear, and that complexity theory is a useful lens to examine these processes. Having been identified as a good fit to understand change in higher education and deal with non-linear change processes, complexity theory will help to deepen understanding of stakeholder's perceptions of change leadership in this study. The previously discussed complexity leadership model from Uhl-Bien and Arena (2018) will also be adapted for this framework. Although complexity theory, and in particular complexity leadership provides valuable insights for research, it is prudent to identify potential shortfalls of this theory before finalising a theoretical framework for this study.

Limitations of complexity theory

In the context of school leadership, Morrison (2010) suggests that there is still no consensus on key definitions, measures, descriptions, and interpretations of complexity and that there is a lack of research relating to management of innovation, while at the same time maintaining control. Morrison also argues that complexity theory suggests that teachers should be at the edge of chaos to change and innovate and this may not help those who operate in the day-to-day world of decision-making. These may also be concerns for higher education. However, more recent research helps address Morrison's concerns but is not proven for the educational sector specifically. For example, a literature review on complexity theory and leadership practice by Rosenhead et al. (2019) has helped consolidate interpretations and definitions, while the complexity leadership model put forward by Uhl-Bien and Arena (2018) can cater for both emergent change and operational alignment which focuses on maintaining some control.

Rosenhead et al. (2019) suggests that there is a scarcity of documented accounts of the applications of complexity leadership in organisational settings where its claims could be backed up. However, Lazaridou (2019) provides such research in a practical higher educational setting. Furthermore, through this study, it is hoped that this knowledge gap

can be reduced. Rosenhead et al. (2019) also identified that complexity leadership literature does not demonstrate any role for quantitative tools and techniques to support leadership as they may be viewed as unhelpful for controlling complexity. Given that technology was identified as a key change driver in the systematic literature review, this is a potential weakness. However, Uhl-Bien and Arena (2018) outline the significance of an entrepreneurial system and operational system to facilitate both emergence and alignment through effective networking and communication. Hence, sufficient scope exists within complexity theory to encompass technology and tools as required.

While complexity theory is based on responding and adapting to its educational environment to survive and achieve continuity (Mason, 2008a, 2008b), literature may be weak in demonstrating the relationship and connections between the environment and the organisation in question. Given that change drivers and context were important themes identified in the systematic literature review relating to an organisation's environment, the conceptual model will encompass these themes to address this limitation. Furthermore, complexity theory focuses on unplanned emergent change to facilitate responding to its environment and Burnes (2004, p.316) argues it rejects, '*top-down command-and-control styles of management.*' However, operational leadership as described by Uhl-Bien and Arena (2018) encompasses the sponsorship of emergent ideas to create alignment and order throughout an organisation. Therefore, I believe there is sufficient capability within complexity theory to inform top-down change for this study.

Although complexity theory provides a strong basis for understanding emergent change and offers ways to engage with and focus on relationships, collaboration, networks and communication in an empowered, democratised, inclusive, and diverse environment, this theory may be lacking in relation to informing change leadership characteristics, especially for top-down changes. Hence, change leadership characteristics previously discussed (section 3.3), will be incorporated into the conceptual model in the next section, to address this possible limitation of complexity theory.

Culture via the competing values framework is a central concept in this study. However, literature is weak in relation to how complexity theory and culture interact to facilitate

change. Although Tong and Arvey (2015) have linked complexity theory and the competing values framework through a literature review to identify behaviours for managing complexity in management articles (enabling, sensemaking and facilitating shared vision), no literature was found to demonstrate the relationships between the competing values framework and complexity theory, even though both are focused on change processes. Therefore, the conceptual model in this study will attempt to demonstrate how these two models can interact and align.

In the next section, these limitations of complexity theory for this study will be addressed through the development of a conceptual framework. An overview of the framework will be provided, followed by a conclusion.

Conceptual framework overview

Introduction

Grant and Osanloo (2014, p.16) argue that a '*conceptual framework offers a logical structure of connected concepts that help provide a picture or visual display of how ideas in a study relate to one another within the theoretical framework.*' When reflecting on the purpose of this study, related literature, and gaps in knowledge, as well as the theoretical framework of complexity theory and its limitations, a change leadership conceptual framework has been developed and is presented in graphical form in Figure 3.10. As well as serving as a suitable conceptual perspective for this study, it also intends to address the limitations of complexity theory previously outlined. While the framework builds upon complexity theory to show how organisations can adapt by responding to its environment, it is hoped that this theory will provide insights into the social science data that will be gathered in this study relating to culture, change and leadership and context. As this type of complex data should take account of the dynamic character of systems that are not typically in equilibrium which make up the world (Byrne, 1998), complexity theory is deemed a good fit and embraces all dynamics of change relevant for this study. In addition, while diversity and gender balance is a change driver in higher education, complexity theory values diversity for emergent change. Finally, the literature review suggested the presence of distributed leadership which aligns to the complexity leadership components previously discussed.

The framework synthesises the following four main areas for this study:

1. The themes of change drivers, context and staff outlined in section 3.2 of the systematic literature review. These feature under the main concept of continuity (in white text).
2. Key complexity theory and complexity leadership concepts discussed in section 3.5 have been added (in blue text). These include the primary concepts of continuity (Mason, 2008a, 2008b), emergence (Mason, 2008a, 2008b; Uhl-Bien and Arena 2018), alignment (Uhl-Bien and Arena, 2018), and adaptability (Mason, 2008a; Uhl-Bien and Arena 2018). Also, sub concepts of diversity (Pinheiro and Young, 2017; Doyle and Brady 2018), feedback (Mason, 2008a; Tsai et al. 2019), networks (Mason, 2008a; Tsai et al. 2019), linking up (Uhl-Bien and Arena 2018) and sponsorship (Uhl-Bien and Arena, 2018) have been added where appropriate. In addition, complexity leadership components of entrepreneurial leadership, enabling leadership and operational leadership are incorporated (Uhl-Bien, Marion and McKeveley, 2007; Uhl-Bien and Arena 2018).
3. Change leadership characteristics are important for this study and the change leadership themes of strategy, tactics, relationships, culture, and capability synthesised from literature in section 3.3 are central to this framework (in yellow text) as they relate to all types of change. Below is a summary of these concepts:
 - Culture: Developing an inclusive, supportive, and democratic culture that encourages creativity and innovation, while being able to deal with conflict in a constructive way (Burnes, 2020; Gilley, 2005; Fullan, 2020; Magsaysay and Hechanova 2017)
 - Capability: Overall capability of staff in terms of having adequate change management and leadership knowledge and abilities, resources, and training (Burnes et al. 2020; Fullan, 2020; Gilley, 2005; Guerrero et al. 2018; Higgs and Rowland, 2000; Kotter, 2012)
 - Relationships: Developing and maintaining relationships with colleagues, building effective teams, rewarding staff, and celebrating milestones (Burnes, 2020; Fullan, 2020; Gilley, 2005; Kotter, 2012; Magsaysay and Hechanova, 2017).
 - Strategy: Strategic thinking allows a clear vision to be established that inspires individuals to change and is achieved through effective communication and

consultation, while understanding that change can be complex (Fullan 2020; Gilley, 2005; Guerrero et al., 2018; Higgs and Rowland, 2009; Kotter, 2012; Magsaysay and Hechanova, 2017).

- Tactics: Developing plans, removing barriers, implementing change gradually, and dealing effectively with organisational resistance to change (Burnes, 2020; Gilley, 2005; Guerrero et al., 2018; Higgs and Rowland, 2000; Magsaysay and Hechanova, 2017)
4. Cameron and Quinn's (2011) competing values of clan, adhocracy, market and hierarchy outlined in section 3.3 have been incorporated (in black text) and link the central concept of culture and other change leadership themes to the other primary concepts through these values. The competing values framework dimensions have also been included connecting the outer framework concepts (external focus and differentiation, stability and control, internal focus and integration, flexibility, and discretion).

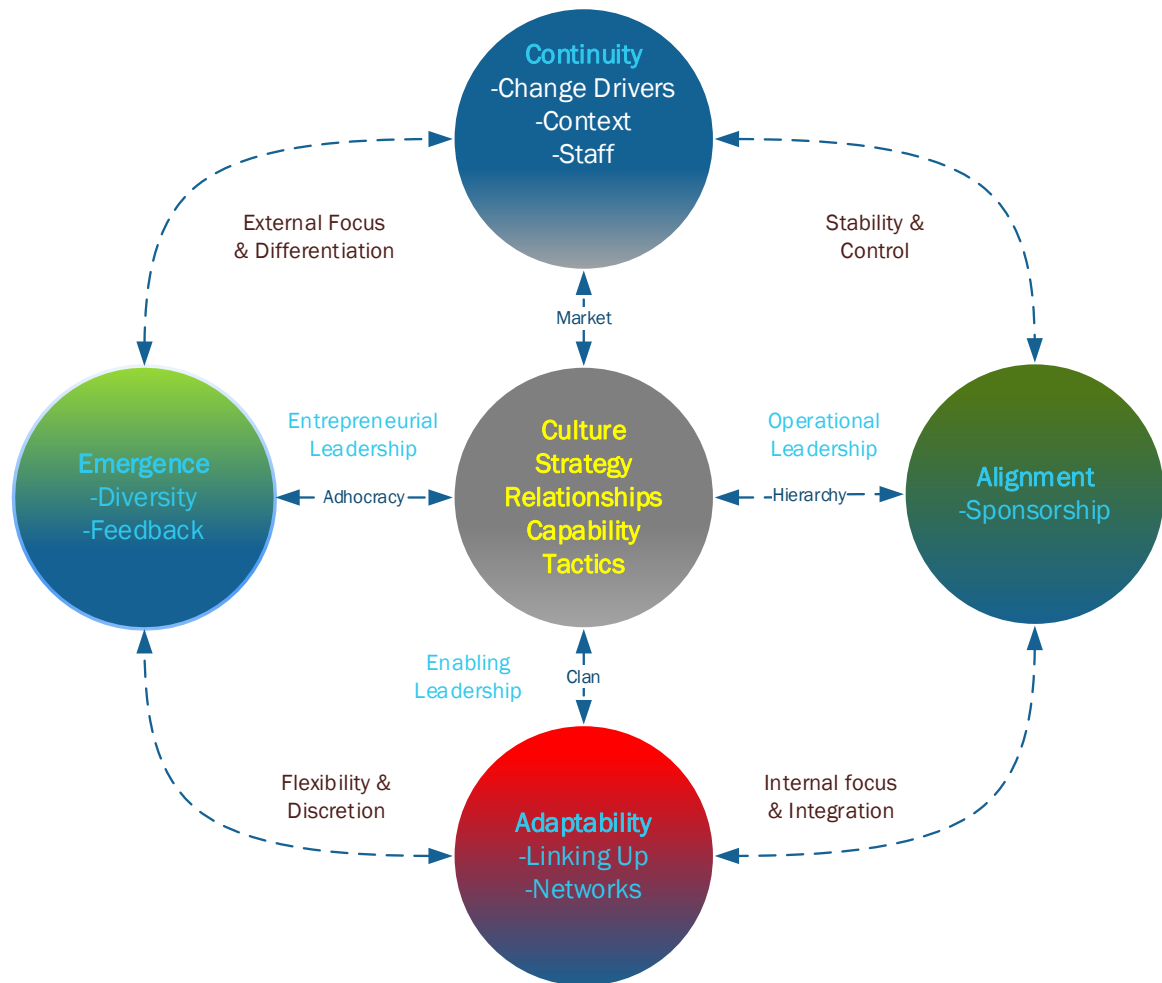


Figure 3.10: Change leadership conceptual framework

Change leadership framework overview

Figure 3.10 is made up of four outer primary concepts of emergence, adaptability, alignment, and continuity with central change leadership concepts of culture, strategy, relationships, capability and tactics. Through Cameron and Quinn’s (2011) competing values of clan, adhocracy, market, and hierarchy, the central concepts connect to the outer concepts. These relationships will now be reviewed, and the various sub concepts introduced and explained.

Emergence is connected to the change leadership concepts through ‘adhocracy’ culture. The emergence and creation of change is enabled through diverse team interaction and feedback. Describing the consequences of change in a system, feedback can be both

positive and negative and can help steer the emergence of ideas. The five change leadership themes are also assumed as enablers of emergence. Emergent change is supported by entrepreneurial leadership that enables the initiation, iteration and socialisation of ideas and distributes leadership (and power) to all levels. Being connected to continuity, emergence takes an external focus and values differentiation so that the organisation can differentiate itself from competitors. Emergence is also connected to adaptability so that ideas can spread across the organisation and enable flexibility and discretion.

Adaptability is linked to the central change leadership concepts through 'clan' culture. Adaptability is where emergent ideas evolve as they are shared across the organisation through linking up and empowering social networks. Organisational adaptability is supported by enabling leadership that provides adaptive space and helps balance the tensions between the need for emergence and alignment. The change leadership concepts are supportive of adaptability. Adaptability is also linked to alignment so that emerging change can be formally integrated internally throughout the organisation and become the standard through top-down change.

Alignment is connected to the change leadership concepts through 'hierarchy' culture and is where leaders make sense of and sponsor emergent changes that have been adapted across some of the organisation and align to the strategy of the organisation. These sponsored changes become the norm across the organisation. Operational leadership take a more hierarchical approach and delivers alignment, while change leadership concepts are enablers. Alignment is connected to adaptability as previously discussed and is also connected to continuity by ensuring that the organisation can maintain sufficient control and stability and be productive and efficient. While alignment is primarily focused on standardising emergent change across the organisation, this framework assumes that it also caters for externally driven top-down change such as that related to policy influences.

Continuity is connected to change leadership concepts via 'market' culture. Continuity relates to organisations responding to its environment to survive through competition, and factor in the change drivers, context and staff of the organisation. Continuity is supported by the change leadership concepts and is connected to both emergence and alignment so

that the organisation continues to adapt and respond to its changing environment, while also maintaining some stability and control. Entrepreneurial leadership, enabling leadership and operational leadership act collectively to support continuity by enabling the creation of emergent change and embedding strategically aligned change initiatives into the organisation (alignment) to allow it to adapt to its competitive environment.

The relationship arrows between the central change leadership concepts and the outer concepts are bi-directional as they will support or hinder the other concepts of emergence, adaptability, alignment and continuity. The outer relationship connections are also bi-directional as each outer concept can influence the others. For example, if the context changes and threatens continuity, it should influence emergent change and/or alignment. Also, both emergent change and alignment activities can support or hinder organisational adaptability.

In relation to the competing values and associated outer framework dimensions, a combination of both adhocracy and market cultures results in the organisation having an external focus and values differentiation. If the organisation has a market and hierarchy culture, it focuses on stability and control and if it has a clan and hierarchy culture it takes an internal focus and values integration. Finally, if the organisation has a combination of a clan and adhocracy culture, it focuses on flexibility and discretion. The strength of competing values may influence change dynamics. For example, if the organisation has a strong adhocracy culture, emergent change may be prominent. If the organisation has a more hierarchical culture, change may be driven primarily from the top-down.

Rationale for framework

The change leadership framework presented provides a useful lens to visualise this study theoretically and conceptually and links up the key ideas and concepts identified as being important. The systematic literature review identified the importance of change drivers, context and staff for change leadership and these feature under continuity. Culture, leadership approaches and characteristics were other themes identified that are addressed by including the change leadership concepts synthesised from key literature.

Cameron and Quinn's (2011) competing values framework was chosen as a suitable tool to assess organisational culture and is contained within the framework. The adhocracy, clan and hierarchy values resonate strongly with entrepreneurial leadership, enabling leadership and operational leadership respectively. The five change leadership themes central to the framework link to all types of cultural values and change, to enable the organisation to adapt and maintain continuity through a combination of both emergence change and top-down alignment. Through the synthesis of these ideas and concepts into the change leadership framework, it is envisaged that this framework will provide important direction for the development of research questions, data collection and analysis of findings in this study. It also has potential to be a useful tool for change leadership training and future research.

3.7 Conclusion

Through a systematic literature review, important themes such as change drivers, context, culture, staff as well as leadership approaches, characteristics and leadership recruitment and development were identified. Additional literature on culture, change, change management, change leadership, and change leadership characteristics was reviewed to get a deeper understanding of areas involved in this study. This allowed for overall gaps in literature to be identified, which relate to a lack of understanding of the influence of change drivers, cultural and contextual factors on change leadership, perceptions of staff on change and leadership, understanding the challenges facing leaders in higher education and what change leadership characteristics are most relevant. These gaps have helped shape the overall research questions of this study and encouraged a mixed methods approach to be taken, while aiming to identify instrumental findings for change leadership.

Complexity theory has been identified as a suitable theoretical framework for this study and created the foundation for the change leadership conceptual framework that incorporates all the key concepts identified in literature. We will now proceed to the methodology chapter to develop a plan to progress this study and carry out the investigation required to answer the research questions.

Chapter 4 Methodology

4.1 Introduction

In this chapter, the research design and methodology for this study will be presented to outline the strategy for carrying out this investigation (Trafford and Leshem, 2008). Guided by the conceptual framework presented in the previous chapter, I will demonstrate how the proposed approach of data collection connects to the research questions. Targeting all staff in the TU, this study takes a holistic approach in terms of internal academic and support staff (stakeholders) and will encompass different types of change and change leadership characteristics relevant to Higher Education. As the merging process of the three IOTs was in progress during this study and will likely be a long-term project for implementation, such an approach was deemed the most appropriate.

The following questions guide this study:

Main research question: How do stakeholders experience and value change leadership?

This primary research question focuses on how the stakeholders in this study observe and encounter change leadership and how important it is to them. The following are the associated subquestions:

Subquestions:

- Q1: What are the main change drivers, cultural and contextual factors for change?
- Q2: What are staff perceptions about change and leadership?
- Q3: What are the challenges for change management and leadership?
- Q4: What are the importance and presence of change leadership characteristics?

This chapter initially focuses on the research design to clarify positionality and the philosophical perspective of this study. The sampling selection will then be discussed followed by the data analysis process to outline the different approaches taken for content analysis, qualitative and quantitative analysis. Validity, reliability, and the overarching ethical framework deployed are then discussed, followed by a conclusion.

4.2 Research design

According to Trafford and Leshem (2008), research design involves various decisions that make up the strategy explaining how the research will be conducted. While a research paradigm helps clarify the research purpose and organise thinking (Cohen et al. 2017), this study will take a pragmatic philosophical paradigm. The literature review in Chapter three identified a lack of instrumental domain research for educational leadership (Gunter, 2016) and no literature that utilised a mixed methods approach to data collection was identified. To help address this gap, this study will use mixed methods, so that practical insights and actionable findings can be identified. According to Kivunja and Kuyini (2017), a pragmatic paradigm is an approach to research that is more practical, where pluralistic (more than one) approaches to methods is utilised to identify actual behaviours and beliefs of participants, where mixed methods is advocated. Cohen et al. (2017, p.9) concurs and adds that a pragmatic paradigm is problem centred, utility orientated practitioner research.

While a mixed methods approach to data collection leverages off the advantages of both qualitative and quantitative methods, Onwuegbuzie and Leech (2005) suggests it has many purposes, including seeking convergence through triangulation, seeking clarification from one method with results from another, discovering contradictions in data, development of research stages sequentially and expanding the breadth and depth of the investigation. All these points are important and further justify the choice of mixed methods for this study.

Trafford and Leshem (2008) argue that research design should reflect the conceptual framework used to guide the study. This pluralist research design approach aligns with the theoretical framework of complexity theory where change leadership involves all staff at all levels for change to be created and alignment to be facilitated. While Mason (2008a) states that complexity theory can provide descriptive and pragmatic insights, Cohen et al. (2017) argue that when undergoing educational research, complexity theory advocates for the importance of context and viewing a system holistically to examine phenomena, and that studies with mixed methods provide multiple perspectives.

The change leadership conceptual framework outlined in Chapter three is utilised to inform the study and interpret data. Using complexity theory as a theoretical framework, the

conceptual framework integrates complexity theory components with culture, change and leadership and change leadership characteristics. Qualitative methods including focus groups and interviews are used in this study to gain a deeper understanding of contextual factors, culture, change, leadership, and challenges, which are all key features of the conceptual framework. A quantitative staff survey gathered views from all staff for assessing perceptions on change, leadership, and associated characteristics. This combination of data will be invaluable to develop relevant findings and help address the research questions in a meaningful, pragmatic way.

The study took place shortly after the designation as a technological university. This means that although the organisation has been designated formally as a TU, staff from each IOT have also retained their own experiences about their old organisation and associated culture and change leadership. Hence the timing was ideal for this study as it reflects on the past organisations and looks into the future as an emerging TU. As all data were collected during a five-month period after designation (April-August 2022), stakeholders held a clear perception of their own IOT, while at the same time having views on the TU merging process and future implications.

Philosophical Perspective

Cohen et al. (2011) suggests that ontological assumptions about the nature of reality give rise to epistemological assumptions relating to ways of enquiring into the nature of things. This in turn leads to methodological considerations as well as instrumentation, data collection and positionality considerations. Figure 4.1 below locates this study within the interpretative pragmatic research paradigm. In this study, the research questions focus on change and leadership and is concerned with participant's attitudes and perceptions about these topics. A pluralist, mixed methods research methodology was then chosen for this study, to align with this paradigm. For this study which took a case study approach, both qualitative methods including content analysis, focus groups and interview research methods were planned as well as quantitative research methods using a survey to capture data. Following this overview of the philosophical perspective for this study, the topics of

ontology, epistemology, research methodology, research methods and positionality will now be reviewed.

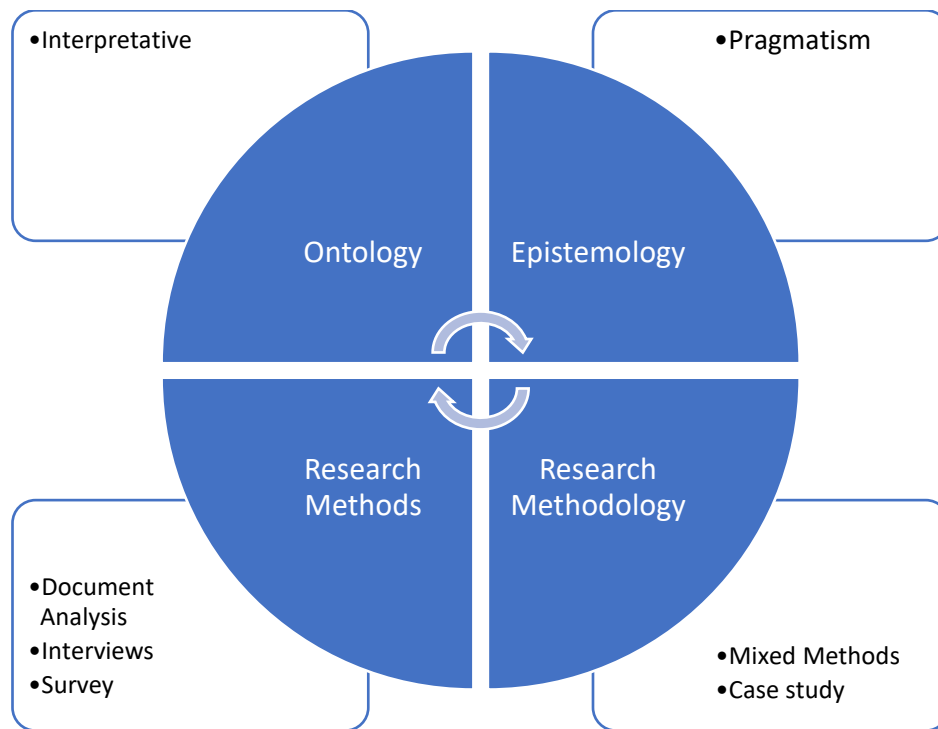


Figure 4.1: Philosophical perspectives of study

Ontology- interpretative

Given my professional and educational background and pragmatic outlook, I was initially drawn to a world view of post-positivism, where knowledge is subjective and tentative, that adopts a pluralist view and facilitates multiple perspectives and interpretations of reality and is supportive of complexity theory (Cohen et al. 2011, 2017). Post-positivism does have unique hallmarks relevant to this research such as the importance of temporality and context in understanding phenomena such as culture, a view of knowledge as a human, social construct and recognising that researchers are part of the world they are studying (Jameson 1991, cited by Cohen et al. 2011, p.27). Panhwar et al. (2017) argue that post-positivism has many advantages for educational research due to its pluralistic and critical multiplistic aspects that balance both positivist and interpretivist approaches through multi-methods, and this promotes the triangulation of methods. However, reflecting on this overall study, three of the four stages had a qualitative focus which align better to an

interpretive ontological perspective. In addition, the stage 3 survey had open questions which provided additional qualitative data from a broad range of respondents to complement the other stages. Hence, I believe that an interpretive view more accurately reflects this study from an ontological perspective, as it focuses on action or behaviour with meaning, and is characterised by the concern for the individual and understanding them from within (Cohen et al. 2011). This is appropriate for this study given its focus on interpreting individual perceptions about change and leadership.

Epistemology- pragmatism

Concerns in relation to epistemology are important for uncovering knowledge of human behaviour and relate to the very bases of knowledge, its nature, and forms, and how it can be acquired and communicated to others (Burrell and Morgan, 1979, cited by Cohen et al. 2011, p.6). The research questions in this study informed the research approach and methods (Punch, 2014) and a mixed methods approach was chosen as the most suitable approach. Creswell and Plano-Clark (2007) argue that pragmatism is not committed to one system of reality and philosophy, but seeks a solution to a problem, and mixed methods can be used to find answers to the research questions. According to Cohen et al. (2011, 2017), a pragmatic paradigm adopts a pluralist approach that draws on positivism and interpretive epistemologies. Creswell and Tashakkori (2007 p306) suggest that taking a practice-based approach with the objective of finding answers to research questions '*seems to be a pragmatic position in which we look at how mixed methods research is actually being used.*' With extensive experience in managing projects and change, I believe the dynamics of change may emerge from the bottom up as well as come from the top down. Both qualitative and quantitative methods are appropriate for this study to gain insights into the complexities associated with these change processes and associated leadership. By combining qualitative and quantitative methods, a robust, pragmatic approach is taken that is ideal to address the research questions in this study.

Methodology-mixed methods

Onwuegbuzie and Leech (2005) suggest that from a research methods perspective, three major schools of thought exist: purists, situationalists and pragmatists. Purists believe that

both qualitative and quantitative methods stem from different ontological and epistemological assumptions about the nature of research and should not be mixed. Pragmatists support integrating methods within a single study, while situationalists believe there is value in both methods but only one should be chosen to address the specific research question (Onwuegbuzie and Leech, 2005). In this study, a mixed methods approach using both qualitative and quantitative methods will be used in this research. A key feature of this mixed methods approach is its methodological pluralism, which can lead to superior results when compared to taking one method (Johnson & Onwuegbuzie, 2004). This approach, generally seen as a pragmatic philosophical paradigm, avails of the strengths of both methods and will help identify actionable, practical solutions from this research.

According to Johnson & Onwuegbuzie (2004), although qualitative research takes an inductive approach and is less generalisable, it is useful for studying a limited number of cases in depth and for understanding people's personal experiences of phenomena in local contexts in vivid detail. This interpretivist or constructivist approach will be taken in this research to gather views from multiple stakeholders. Quantitative research will also be utilised, which is a deductive approach that produces more generalisable findings, utilising a positivism/ scientific paradigm (Johnson & Onwuegbuzie, 2004). This methodology will be useful for gathering a wide variety of stakeholder perceptions about change and leadership and associated characteristics. Taking a pragmatic approach using mixed methods provides flexibility to address research questions and allows qualitative research to inform the quantitative portion and vice versa and ultimately combine empirical precision with descriptive precision (Onwuegbuzie and Leech. 2005).

Some disadvantages exist for mixed methods research, which includes the researcher having to learn about and implement different research methods in a meaningful way (Johnson & Onwuegbuzie 2004). Although this approach will be more time consuming than other approaches, mixed methods is appropriate for the theoretical framework of complexity theory (Cohen et al. 2011) and will help identify multiple perspectives on the topics of this study. Schoonenboom and Johnson (2017) suggest that multilevel designs can be complex but that this is often required to answer research questions.

Having considered the various design dimensions for designing mixed methods research by Schoonenboom and Johnson (2017), I plan to address each subquestion through a combination of qualitative and quantitative methods. Both inductive and deductive approaches will be taken and will be conducted sequentially in a multiphase design. Some dependence will exist between stages where the prior stage may inform the next stage. The point of integration of the qualitative and quantitative components will occur in the findings chapter.

Research Approach- Case Study

Maxwell (2019, p2) defines a case study as a *'systematic inquiry that investigates a contextually specific phenomenon of relevance to current practice, using multifaceted approaches to the collation of evidence and where there is often evident ambiguity between the phenomenon and the context.'* While case studies have been carried out for educational research since the 1970s, they need to have key elements such as a bounded unit like an institution, be located within a professional community and involve interactions, relationships and practices between the case and the wider world with a view of capturing rich data to capture the complexity of the case (Hamilton and Corbett-Whittier, 2013). Hetherington (2013) argues that a case study is one possible research approach to the exploration of complex systems in education that has rich potential. Yin (2013) broadens it further and argues that to arrive at a sound understanding of the case, one also needs to examine the likely interaction between the case and its context. Considering the research questions and design of this study and the use of complexity theory as a theoretical lens focusing on staff within an emerging TU, a case study approach was identified as the most appropriate approach for this research.

Stake (1994) identifies three main types of case studies. The first are intrinsic case studies that are undertaken to get an understanding of the case itself, the second are instrumental case studies that examine a case to get insights into an issue or theory. The third is collective case studies that are undertaken to get a fuller picture. While the first two types are relevant to this study where understanding the case itself is important and that this could help shed light on an issue or theory such as change leadership in higher education, the primary focus is intrinsic in nature. Considering Yin (2009) and case study designs, this study

falls into the embedded, single case design where there is more than one unit of analysis. For example, this study will use multiple methods and take the three original institutes as one unit of analysis (for culture assessment) and examine sub units such as respondent types for survey data.

Although several TUs were being formed during this study, and multiple case analysis may lead to more generalised findings, a single case was chosen. The primary objective was to answer the research questions that are specific to the TU in question. This will allow a deeper understanding of this TU and its unique and complex situation. While findings in this instance are less generalisable than if multiple TUs were included in this research, the findings will be of value to them as they have many similarities in terms of history and future mandate. Furthermore, as an employee in the TU, I have easier access to data and participants and have also the benefit of insider knowledge of the context.

One of the most important aspects of a case study is determining the boundaries (Hamilton and Corbett-Whittier, 2013). Although three institutes came together to form the new TU, the boundary of this case study will encompass staff of the new TU, made up of the three institutes together. While this study could have taken the three institutes as separate cases, the TU was formed before the field work initiated. Therefore, it was appropriate to take a single case study approach and analyse findings in various ways. In addition, taking the new TU as the organisation in question, the theoretical framework of complexity theory takes this organisation as the complex adaptive system. Furthermore, by taking advantage of the case study method and probing a case and its context in detail, the classic case study is usually limited to only a single case (Yin, 2013).

Research Methods

This case study research is broken into four sequential stages. The first stage involves documentary analysis, which is a qualitative data collection method that was used to analyse the primary TU submission document for TU designation. Containing the first common voice of the TU, it was identified as contextually significant for this study, and was included to provide an introductory overview for the other stages to build upon. While documents require careful analysis and interpretation, the target audience and context are

important considerations (Cohen et al, 2011). For example, Morgan (2022) suggests that when organisations are making documents publicly available, content may be limited to what aligns with values of senior management. Although tests involve working with limited data, document analysis has many advantages such as the stability of data, reduced ethical concerns and providing important information other methods may not uncover (Morgan (2022).

The second stage of this research also used a qualitative method of semi structured focus group interviews to gain insights from formal leaders (senior management and executive staff) as they are key influencers of change. Often a valuable complement to other methods, focus groups bring together a small group of individuals to discuss open ended questions, are inherently social in nature, and generate data through conversations and interactions, capturing tensions around subjects and help inform future surveys (Cyr, 2017). This stage helped inform the design of a survey for stage 3. Standardised, open-ended interviews were used in a consistent order, which helps comparability and the organisation of data (Cohen et al. 2011) (see Appendix 4). The focus group interviews were held online using Microsoft Teams for the convenience and health and safety of participants², which also enabled the ability to record and transcribe the discussions efficiently. Prior to each focus group, participants completed a short online pre-interview questionnaire to record their consent to participate (Appendix 3). Personal demographics as well as initial perceptions on change, leadership and culture that would be used during the focus group discussions were also captured in this survey.

Building upon stages 1 and 2, the third stage of this research involved the use of an online survey of all staff, to collect data on perceptions relating change, leadership, and associated characteristics (See Appendix 7). Typically, surveys gather data to describe the nature of existing conditions and possible relationships between specific events and provide an efficient way of gathering standardised data from a wide population that can be processed statistically to make generalisations (Cohen et al. 2011). In addition to quantitative

² During this research, the Covid-19 pandemic was prominent and caused restrictions in face-to-face interactions. As a result, all focus groups and interviews were carried out online using Microsoft Teams.

questions, open questions were built into this survey to capture qualitative data associated with change and leadership perceptions of respondents. These data were analysed along with the other qualitative data so that a broader perspective was gained from this study.

I decided that the president would not be a participant of a focus group meeting due to power relations that could have a negative impact on the process by preventing other staff to speak freely. In addition, the role of president was the most senior position in this study with the most positional power and I felt was worthy of a separate stage. Hence, the fourth and final stage of this research was an individual interview with the president. (The interview questions are available in Appendix 8.) Like stage 2, this online individual interview gathered insights from the president as another key stakeholder in this research and discussed preliminary findings from stage 2 and 3. Again, a pre-interview online questionnaire was used in advance.

Figure 4.2 below summarises the mixed methods research stages in this study, which were sequential in nature. Preliminary findings of each stage informed the next stage to allow some finetuning where required. This multi-staged, mixed methods approach to data collection included all internal staff who are stakeholders to change leadership.

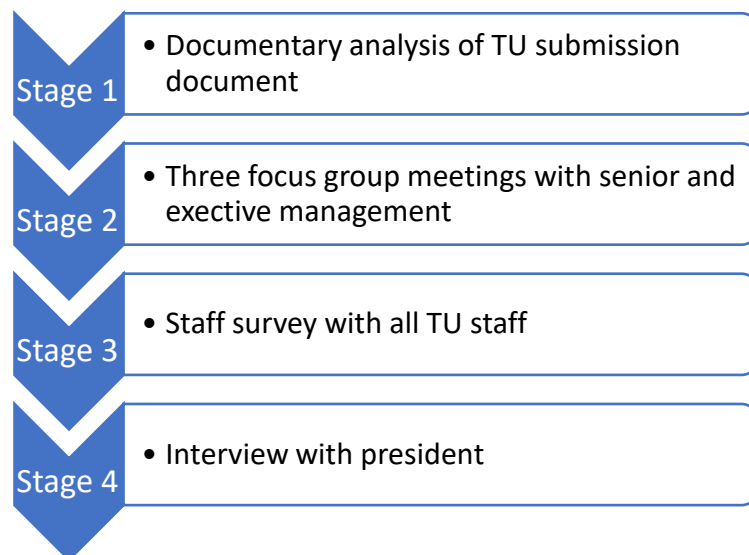


Figure 4.2: Overview of research stages

Positionality

In relation to positionality for qualitative research, while positionality represents a space in which objectivism and subjectivism meet, Bourke (2014) suggests that it can never be truly objective and being mindful of subjectivities helps. As Burke argues that we must acknowledge who we are as individuals, members of groups, and our position within social positions, I have reflected on my own positionality in this research.

My educational and professional experiences have influenced my position in this research and shaped my perceptions about change and leadership. With a primary degree in engineering and a Masters in Business Administration, I have always been a systems orientated, pragmatic person seeking solutions to technical or business-related problems. As a result, I was drawn to a pragmatic approach using mixed methods. Having worked for 12 years as a project and programme manager in large multinational organisations within the private sector, I developed extensive skills in managing planned changes, typically driven from the top-down. This has given me a strong foundation of knowledge of change and project management within the private sector, which influence how I understand how change can be led in other sectors outside of higher education.

Since then, I worked as a lecturer in higher education and have over 12 years' experience as Head of Department, which is a middle management position. This position has provided a

vast range of insights from interacting directly with students, colleagues, to executive staff members and external stakeholders. This experience has deepened my understanding of the multiple challenges and issues associated with leading change in this environment, which I feel will allow me to empathise with research participants.

In this research, I am an insider as Head of Department within the emerging TU, and an outsider as a researcher in Maynooth University. As an insider in a position of authority, I am aware of the possible power dynamics that may impact my research. The focus groups involved peers at the same organisational level as I, as well as executive members. The importance of equal participation was discussed at the start of these sessions to reduce the influence of power. Furthermore, as an academic manager, I was conscious to have a balance of opinion from both academic and support staff in the focus groups through equal participation. By regularly reflecting on my own positionality throughout the research process (e.g., through supervisor discussions, reflective journaling and workshops with doctoral peers), every effort was made to acknowledge my personal positionality, identify power dynamics, incorporate diverse viewpoints and interpretations, and understand how my personal biases may influence how I collect, interpret, and understand data and my experiences.

I believe education is a strong enabler for individuals to fulfil their potential and positively impact society and the economy. Coupled with my belief, experiences, and role in higher education, I have a strong desire to engage in this study. Furthermore, while many heads of department have doctoral qualifications, it is hoped that through this study, I will be able to further my education to this level and gain a deeper understanding for research activity. In the context of multiple competing demands from various stakeholders such as colleagues, students, and external bodies, I frequently find it challenging to make sense of the complex higher educational environment and its navigation. Although I am comfortable with planned change, I feel less equipped for emerging change and am aware that both types of change are needed in the higher educational sector. However, this study has allowed me to reflect as a researcher and practitioner and investigate this complicated contextual environment with a view to establishing a better understanding of change leadership. This understanding

may also positively influence my own ability to lead change as a practitioner and emerging researcher.

4.3 Sample selection

Sampling relates to defining the population that the research will focus on and needs to consider the time and accessibility of participants, while aiming to get a representative of the total population (Cohen et al. 2011). In this case study, the population consists of all staff within the TU. As this limited population is not random sampling or probability sampling, and does not represent the wider population, the findings from this study cannot be generalisable (Cohen et al. 2011). As part of this study, the buy-in from various gatekeepers was required from each of the three IOT past presidents as well as the new president. In the following sections, the sampling strategy will be discussed for stages 2,3 and 4. (Note in stage 1, the TU submission document was selected as a single document for analysis due to its uniqueness for this study).

Interview sampling selection

In qualitative research methods like the stage 2 focus group meetings, there are no clear rules on the sample required, but the size should be sufficient to generate rich data (Cohen et al. 2011). Stage 2 focus group meetings targeted formal leaders (middle and executive level leaders) as Phillips and Snodgrass (2022) argue that those at senior-level leadership roles in HEIs are ideally placed to encourage, implement, and lead change initiatives. As these leaders are involved in supporting emergent change, helping to adapt change across the organisation, and implement change from the top down (Uhl-Bien and Arena, 2018), all types of change would be addressed in the focus group discussions. Although this approach did not include influential leaders or other non-management staff, the experiences of these other stakeholders could be captured through the stage 3 survey, which included open questions on change and leadership to gain additional qualitative insights. Given the unique context of three separate IOTs merging to form a new TU, it was important to capture insights from all three IOTs equally. Hence, I held three separate focus group meetings, one with each of the three IOTs, and this allowed for cross comparisons between IOT focus groups.

The objective was to target a diverse cohort for each focus group so that discussions and viewpoints could be captured that spanned the organisation. Therefore, the selection criteria involved a mix between management and executive staff, a mix in gender and a mix between academic and non-academic staff. (Note non-academic staff are those assigned to support functions outside of academic faculties/ schools and are commonly referred to as non-management professional, management, and support staff (PMSS). Although no non-management staff were part of focus groups, their input was gathered through the Stage 3 questionnaire as well as its open questions. A purposeful sampling approach was taken and incorporated quota sampling (Cohen et al. 2011). As part of the selection criteria, no direct power or reporting relationships between participants within each focus group was permitted. (This was also facilitated by interviewing the president separately in Stage 4). Participants were targeted using this sampling criteria and were contacted directly via email to invite them to participate. When a participant declined the invitation, another participant was emailed with a similar sampling criterion until a minimum cohort was secured for each focus group.

As Morgan (1988, p.43, cited by Cohen et al. 2011, p.437) suggested that a minimum of four participants is required for a focus group, this minimum was planned and achieved. Table 4.1 below provides a summary of the focus group participants. The first focus group had seven participants and the other two had four participants. Given the demanding role of senior management and executive management staff towards the end of an academic year, it was difficult to get availability for many participants, so an iterative approach was taken to finalise participants. However, a good mix between male/ female participants of 60:40 was achieved as well as a mix of 60:40 executive to management staff. This overall profile led to fruitful discussions and diverse views, which was the main objective of this stage.

In the findings Chapter five, section 5.2 presents an analysis of participant demographics that were captured through the pre-interview surveys. In relation to the stage 4 president interview, although I did consider interviewing the previous three IOT presidents individually also, it was sufficient to capture their voice within the stage 3 survey, which will now be reviewed from a sample selection perspective.

Table 4.1: Summary of focus group participants

Heading	Total Male	Total Female	Total Managers	Total Executive	Overall Total
Focus group 1	4	3	3	4	7
Focus group 2	2	2	2	2	4
Focus group 3	3	1	1	3	4
Totals	9	6	6	9	15

Survey sample selection

Regarding the stage three survey, Cohen et al. (2011) argues that a sample size of 30 cases is held by many as the minimum sample size for statistical analysis. As well as the sample size needed to examine relationships, consideration needs to be given to the minimum sample size to accurately represent the target population. According to the TU submission document, the total population of the new TU is 2,215 with a split of 47% support staff and 53% academic staff. Academic staff are split 48% female and 52% male.

In relation to the overall representation of the survey, Cohen et al. (2017) states that error margins are expressed in terms of confidence level and confidence interval. To provide a confidence interval of 5% with a confidence level of 95%, a population size of 2,500 would require a minimum sample size of 333 survey participants (Cohen et al. 2017 p 206). Based on previous surveys within the IOTs, this was achievable through an effective campaign for survey participation. With approval and support from the gate keepers, the TU president launched the survey to all staff via a carefully worded email I prepared (See Appendix 6). As the president had access to all staff email, I felt that initial circulation of the survey from the president was a pragmatic approach to promote participation. Following additional emails from me to other management staff to remind their colleagues to participate, a total of 371

participants completed the survey successfully. The data collection process will now be discussed in the following section.

4.4 Data collection

In this section, an overview of the research stages and the sequential approach used for data collection will be provided. Insights from the piloting of instruments will be discussed followed by a review of each data collection stage.

Figure 4.3 below provides a graphical overview of the stages of data collection, their relationship to each other and their overall timelines. Stage 1 document analysis of the TU submission document took place in November 2021, which provided a useful context for the piloting of stage 2 in November and December 2021. Ethical approval was granted for this study on 16th March 2022 and TU formal designation occurred shortly after on 1st April 2022. This enabled stage 2 pre-interview surveys and focus group meetings that took place in April and May 2022. Insights from stage 2 informed the stage 3 staff survey. After piloting the stage 3 survey, it was launched via email on the 30th May 2022 by the president (See Appendix 6) and was open for respondents until the end of June 2022. For stage 4, the president was interviewed on 26th August 2022, which concluded the data collection phase of this research. In the following sections, the piloting phase and research stages will be further discussed.

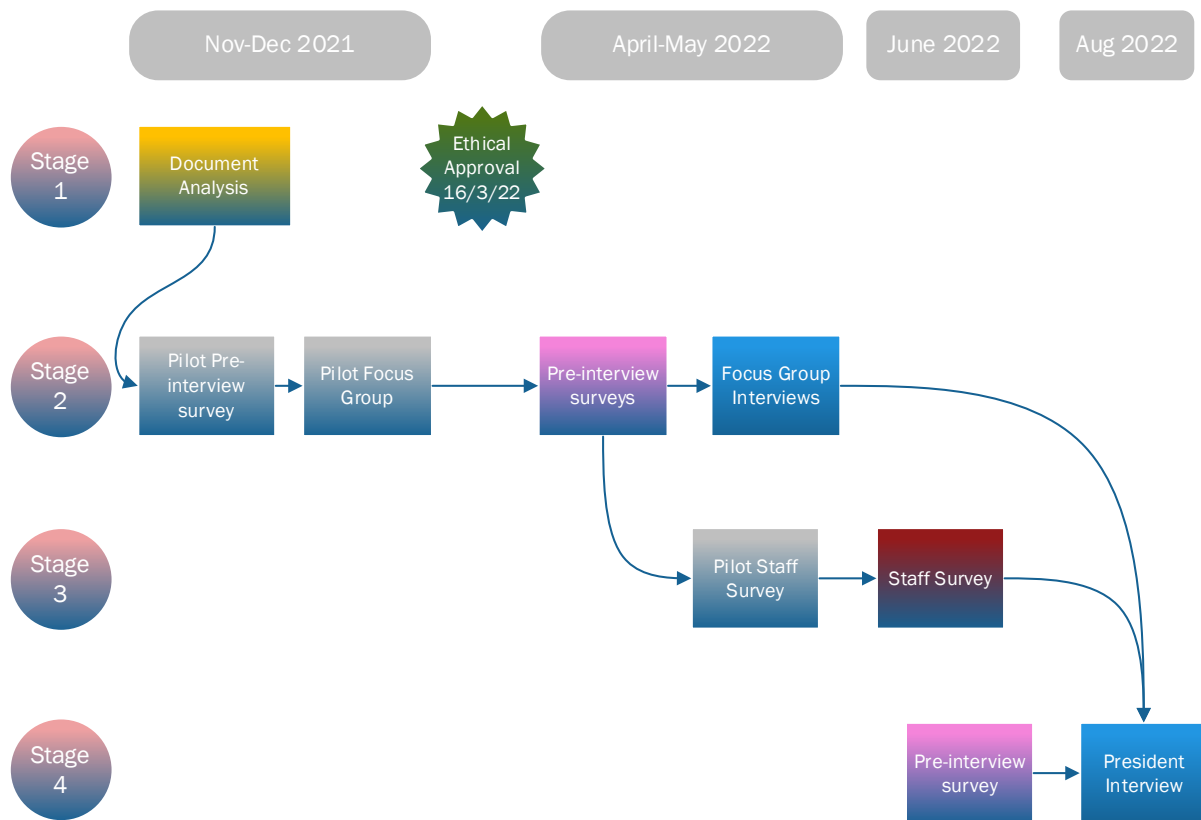


Figure 4.3: Overview of data collection process

Piloting the instruments

As well as providing a useful introductory overview of the TU, the stage 1 documentation analysis helped shape the pilot focus group survey and pilot focus group. This stage 2 pilot phase indicated in grey in Figure 4.3 allowed for the testing of the stage 2 survey and focus group questions, and facilitated a practice run for using Microsoft Teams and its record and transcription functionality. Four participants took part in the pre-focus group stage. These participants, known to the researcher, were chosen to provide constructive feedback on the process. Two heads of school, one head of research and an operations manager were chosen. From this piloting phase, I fine-tuned my interview approach and style as well as interview questions. For instance, I discovered that some the word trees generated from stage 1 did not help the discussions on certain topics so were removed from the formal focus groups. In addition, I trialled a sketch exercise as part of the pre-interview survey, where participants developed a sketch of their role in the context of change. Reflecting on this exercise and the time constrains of senior managers, I felt that sufficient data were

being captured through the pre-focus group survey and focus groups, so the sketch exercise was omitted. Overall, the pilot phase of the focus groups was very beneficial and ensured the process was fine-tuned for the following formal focus groups.

The stage three staff survey was also piloted, which is indicated in grey in Figure 4.3. This was done to help ensure the proposed survey questions were clearly written and structured and that the response data would be as accurate as possible. The survey was developed from findings in the literature review as well as the pre-interview survey findings, which tested some of the question topics with focus group participants. Experienced researchers, including my research supervisor, were utilised to gain feedback on the survey instrument which assisted in its refinement. Feedback was generally positive with some recommendations implemented, such as including definitions of some terms, making some questions more precise, providing a clear context for them to respond, toning down any normative statements and including more open questions. The pilot phase of the staff survey was invaluable in reducing any confusion or ambiguity for the respondents and maximising the benefits of this data collection instrument.

Stage 2 Focus groups

In preparation for the three focus groups with senior managers, a pre-interview survey (Appendix 3) was completed by each participant to provide information on the research and record their consent to take part. Another important part of this survey was the capturing of participant demographic data and their cultural scores relating to the Cameron and Quinn (2011) organisational culture assessment instrument. Questions on the importance of change leadership themes were included to test their relevance before being used in more detail for the stage 3 staff survey.

The online focus group interviews were 1 ½ hours duration using Microsoft Teams. They took place during normal business hours on the 6th April, the 13th May and the 16th May 2022. Apart from social distancing constraints because of the Covid-19 pandemic, I found the online format useful for transcribing and recording the interaction. Furthermore, it allowed staff to participate in their own familiar setting. The interview questions were emailed to participants in advance so that they had time to prepare. Following a brief

introduction, ice breaker open questions were used initially to allow for participants to settle in and start contributing. The context and benefits of the research were then provided followed by a short overview of stage 1 findings. The survey culture scores were then reviewed, and the current and preferred culture discussed. Open questions associated with change drivers, management and leadership and change leadership were then examined. The questions used were informed by the literature review and the research questions of this study and can be found in Appendix 4.

During each online focus group, Microsoft PowerPoint slides were shared on the screen as a visual aid to present information and questions and structure the interview process. A copy of these slides is in Appendix 5. In addition to the video recording and transcription, key summary points were also gathered through the recording of summary responses on the PowerPoint slides, like a flipchart. The overall experience was very stimulating for everyone, and the open and rich discussions that were held led to fruitful data being collected, relevant for this study.

Stage 3 Staff survey

Descriptive surveys describe data on variables relevant to the study and often use attitude scales (Cohen et al. 2011). The survey instrument developed for this study used the Joint Information Systems Committee (JISC) online survey platform. A copy of the staff survey can be found in Appendix 7 and begins with the information sheet and consent, followed by respondent demographical questions. The next section of the survey focused on questions associated with change and how it is impacting the respondent. Responses were captured using a five-point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree). Using the same Likert scale, questions about leadership are presented. Both sections on change and leadership were adapted from a study of higher education in the UK by Devecchi et al. (2018) following permission being granted by the primary researcher. An open question was included to capture anything that the respondent would like to add associated with change and leadership. In the next section, 25 change leadership characteristics developed from the literature review were tested with the respondents. The importance of the characteristics was captured using a 5-point Likert scale (absolutely

essential, very important, average importance, little importance, not important at all). Note this scale evolved from the pilot pre-focus group interviews when it appeared that all characteristics were clustered around the highest score of 'very important,' so the scale was adjusted to help improve the distinguishing ability between the characteristics. In addition to the importance of the various change leadership characteristic within their institute prior to designation, questions associated with the presence of these characteristics were also included. Finally, open questions were included to allow the inclusion of any respondent comments relating to the importance and presence of these characteristics.

The TU president launched the survey to all staff via email on the 30th May 2022. Having consulted with other researchers and colleagues, I felt this was the most pragmatic approach to help ensure a strong response rate, as the president represented all the staff from the three previous IOTs and the president support I felt helped promote participation. While monitoring survey responses, I sent follow up emails to senior managers to remind them to complete the survey and to remind their staff to do so also. Furthermore, I had an opportunity to remind all staff about the survey at the online end of year staff meeting on 20th June 2022. The survey was then closed shortly after with 371 complete responses, which was more than the target sample number set out at the initial stages of this research.

Stage 4 President interview

This sampling approach taken in this study attempted to minimise any power relations of participants. As a result, the president was not included in the stage 2 focus groups but was interviewed separately in stage 4. In addition, a separate interview with the president was appropriate as this is the most senior internal stakeholder who had full oversight of the TU and the changes underway and had the most positional power within this study. Stage 4 utilised the same pre-interview survey from stage 2 to capture consent and demographic data from the president as well as culture and change leadership insights. The interview took place on 26th August 2022 and like stage 2 focus groups, the meeting was conducted online using Microsoft Teams while sharing Microsoft PowerPoint. Given the time constraints of the president and the fact that only one person was being interviewed, the meeting was set to one hour duration and was sufficient.

The interview questions with the president can be found in Appendix 8. To build upon the previous research stages, a summary of initial preliminary findings from the stage 2 focus groups were discussed with the president so that any comments or additional points would be collected. I felt that this approach would facilitate progress from the previous research stages, as well as capture the voice of another key stakeholder. Furthermore, I believed that this was the most effective use of the limited time available with the president. The president's current and preferred culture was also discussed and compared to the findings from the focus groups. In addition, a summary of the stage 3 staff survey was presented and feedback from the president received. The interview succeeded in gaining insights from the president in relation to the topics in an open, constructive way. While the president interview created lots of data for one stakeholder, effort was made to provide all stakeholders with a voice through the stage 4 data collection process.

4.5 Data analysis

In this section, an overview of the data analysis process will be presented. The background to qualitative analysis, content analysis for stage 1, and the qualitative analysis process for the other stages are then reviewed.

Overview

Throughout the process of data analysis of the quantitative and qualitative data, the research questions in this study provided a useful guide. Table 4.2 provides an overview of the main data sources used to address these questions. Stage 1 content analysis, coupled with stage 2 focus group qualitative findings provided some rich insights relating to the first subquestion on change drivers, cultural and contextual factors. Subquestion 2 related to staff perceptions about change and leadership which were addressed through stage 2 focus groups, stage 4 president interview in addition to the stage 3 survey. Subquestion 3 related to key challenges for change management and leadership and was addressed mainly using findings from stage 2 focus groups and stage 4 president interview.

Table 4.2: Main data sources to address research questions.

Stage/ Question	Q1: What are the main change drivers, cultural and contextual factors for change?	Q2: What are staff perceptions about change and leadership?	Q3: What are the key challenges for change management and leadership?	Q4: What are the importance and presence of change leadership characteristics?	Main: How do stakeholder's experience and value change leadership
1: Document Analysis	X				X
2: Focus Group Interviews	X	X	X		X
3: Staff Survey		X		X	X
4: President Interview	X	X	X		X

Regarding subquestion four, the importance and presence of change leadership characteristics were addressed through the analysis from the staff survey, while the overarching main research question relating to stakeholder's experience and value of change leadership was dealt with through the combination of all stages. This holistic, mixed methods approach that used data from multiple sources and stakeholders aligns to the theoretical framework of complexity theory, which highlights the importance of diversity, networks, and connectedness (Cohen et al. 2011). Table 4.3 below provides a summary of the stages, responses and forms of data analysis and software used in this study. Each stage utilised Nvivo qualitative analysis software, while stage 3 also used quantitative analysis tools.

Table 4.3: Data analysis overview

Stage	Number of responses	Mode of Analysis	Software Used
1: Document Analysis	One document	Qualitative	Nvivo
2: Focus Group Interviews	Three meetings with 15 participants	Qualitative	Nvivo
3: Staff Survey	371 respondents	Quantitative Qualitative (open questions)	JISC, SPSS and MS Excel JISC, SPSS, Nvivo
4: President Interview	One interview	Qualitative	Nvivo

Qualitative analysis background

Qualitative data analysis was completed for each of the four research stages. This involves organising and explaining the data to make sense of it, noting patterns, themes and categories (Cohen et al. 2011). While the primary purpose of this study is to answer the research questions in this study, data analysis was aligned with the research questions, as it draws together all the relevant data associated with the issues of concern (Cohen et al. 2011, 2018).

The purpose of the stage 1 document analysis is to establish an introductory context for the emerging TU in terms of the key themes. Hence, I decided to use content analysis that is a process for summarising the main contents of data. Ezzy (2002 p.83, cited by Cohen et al. 2011, p.564) suggests that content analysis starts with the text, defines the unit of analysis and categories, codes the text, organising codes into categories, counts and logs occurrences and then utilises statistical analysis and to interpret results. Reflecting on the purpose of stage 1, I chose this approach as I felt it was the most suitable process. Findings of stage 1 can be found in the section 5.3.

The purpose of stage 2 focus group meetings and the stage 4 interview is to assess perceptions of participants associated with key topics in this research. In addition to deductive themes known in this study, inductive themes coming from the analysis of data will also be of interest. Braun and Clarke (2006) summarise their six-step process for thematic analysis as familiarisation with the data, coding, searching for themes, reviewing themes, defining, and naming themes and writing up. This process informed my approach for identifying themes in this research. While their process evolved recently to include reflective thematic analysis, Braun and Clarke (2019) argue that qualitative research involves ongoing thinking, reflecting, learning, and evolving and conceptualising themes as stories about patterns of shared meaning across the dataset.

The document analysis, the focus groups, the interview and open survey questions all involved qualitative data. The transcripts from the three focus groups, and one interview totalled 124 pages. Nvivo was used to manage the TU submission document file, the interview and focus group transcripts, as well as the staff survey open question responses. Utilising a tool like Nvivo can be used for various activities such as coding, categorising, nodes and connections, and thematic analysis (Cohen et al. 2011). Nvivo was used in this study to help with each of these activities. The next section will outline the process of content analysis for stage 1, followed by the data analysis process for the other stages.

Content analysis for stage 1

According to Graneheim et al. (2017), qualitative content analysis can take three approaches that include an inductive approach characterised by searching for patterns in data, which can be described as categories or themes, a deductive approach where existing concepts under study drive theme development, and finally an abductive approach that combines both approaches. In this research, an abductive approach was used.

The TU submission document was uploaded into Nvivo and auto coded to identify word frequencies. From this, word associations were created using the word tree function and gathered to create overarching themes which included education, TU designation, change, engagement, and staff. Data were presented in tabular form as suggested by Anderson and Arsenault (1998 p.102, cited by Cohen et al. 2011). Following this inductive process of

theme identification, key concepts in this study were then deductively investigated using specific word searches and word trees. Many deductive themes were identified, but the ones that had relevant findings included change, management, leadership, and culture which are discussed in the findings Chapter five.

Qualitative data analysis for other stages

In relation to the qualitative data analysis for stages 2,3 and 4, the six step Braun and Clarke (2006, 2019) process for reflective thematic analysis was used as a guide to outline the process undertaken. Although this process for reflective thematic analysis was not rigidly followed, it did provide useful guidance for rigorous qualitative data analysis for this study.

The first step in the data analysis process involved getting familiar with the data (Braun and Clarke, 2016). This involved listening to the video recordings of the three focus group meetings and president's interview and getting familiar with the discussions that took place. I then reviewed and revised the transcription of each interview so that it was a true reflection of the discussions. All participant names were then replaced with pseudonyms. Once each interview transcript was finalised, they were then uploaded to the Nvivo research project.

Utilising NIVO, the second step involved beginning the coding process. In this case I initiated with deductive codes relevant to my research which were change, change management, culture, and leadership. Braun and Clarke (2006) argue that both inductive and deductive approaches to thematic analysis can be used to identify themes or patterns within data. As data were reviewed, new open codes were created for new ideas (Cohen et al. 2011). Each transcript was analysed in detail to identify all relevant ideas related to the study and research questions. The auto code function of Nvivo was also used to identify the most common words in the data. This reinforced existing codes, but no new ones emerged from this process. (Note, a summary of the themes and sub-themes generated through Nvivo is captured in Table 4.5).

Once codes were gathered, the third step was to search for themes that resonated with the research questions. At this stage, I was able to use Nvivo to conveniently relocate codes and

sub codes into existing and new folders based on their relationships and their relevance to the research questions. The title for these overarching folders were then revised to align with the key ideas present and became themes. The order of relationships between codes was also reviewed and sub-codes were created as required to organise the ideas as effectively as possible.

The fourth step focused on reviewing the themes that were identified to ensure they accurately reflected the dataset (Braun and Clarke, 2006). Mind maps, brainstorming and sketching were used as tools to aid this process of reflection. Diagrams were developed to map out the relationships between themes from literature and the various themes and codes, so that they could be aligned to the research questions in the study. Figure 4.4 below provides an extract from an example of this process, which utilised Nvivo to develop a concept map using codes and themes. This process helped refine the relationships between the codes and themes, the title of the themes as well as establish the dataset relationships to the research questions.

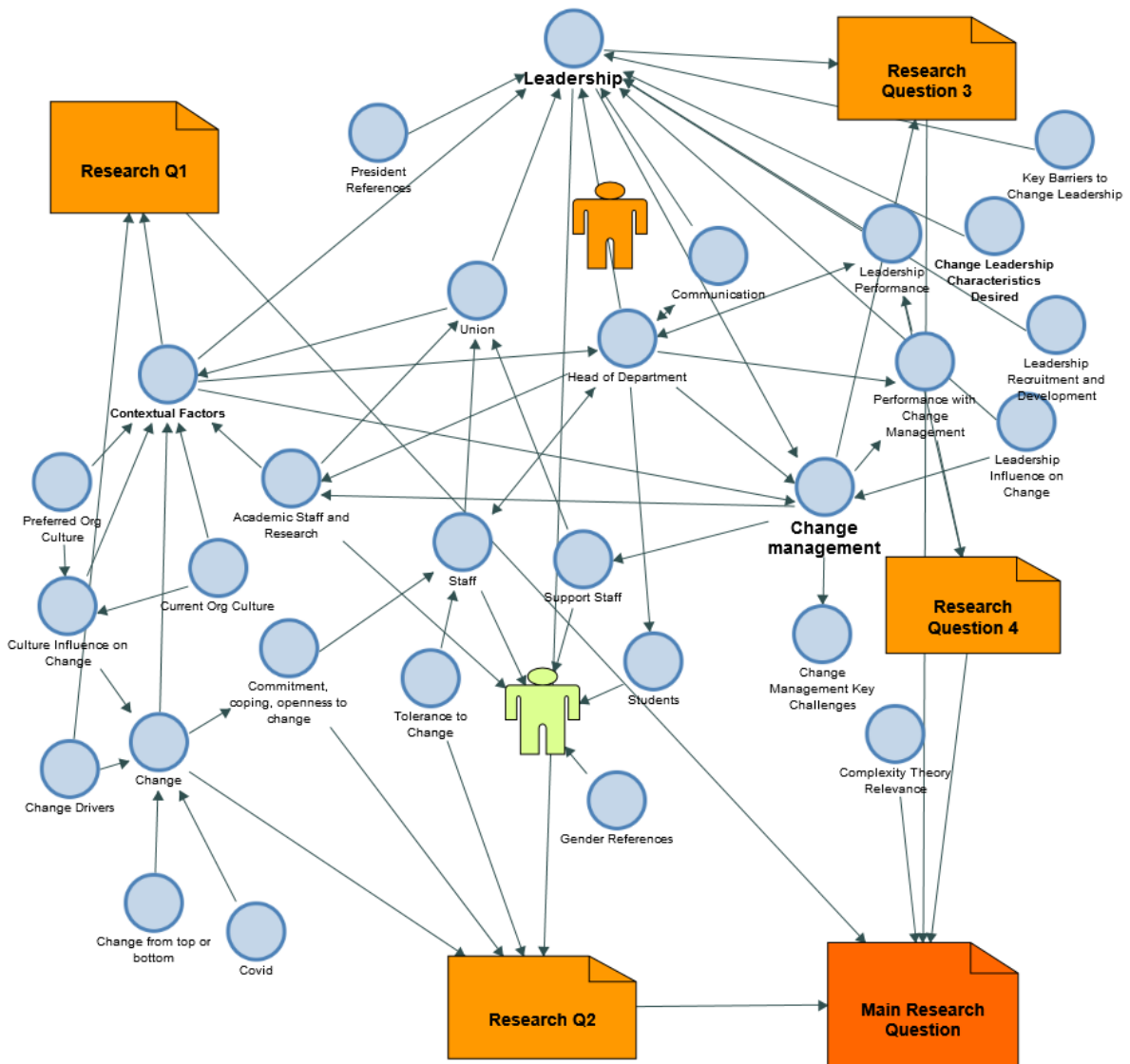


Figure 4.4: Sample concept map from NVivo using codes

The next steps involved defining and naming themes and confirming if any sub-themes are present to help give structure to large themes and provide a hierarchy relationship (Braun and Clarke, 2006). Nvivo helped facilitate the finalising and reorganising of themes and sub-themes. A summary of the themes and sub-themes generated through Nvivo is captured in Table 4.4 below.

Table 4.4: Qualitative thematic analysis in Nvivo

Theme/ Sub Theme/ Codes	Files	No. of References	Category
Change	4	29	Theme
Change Drivers	4	25	Theme
EXTERNAL	0	0	Sub theme
Covid	4	24	code
Gender and diversity	4	7	code
Government and Policy	3	7	code
Internationalisation	1	1	code
Region	2	2	code
Sustainability	1	3	code
Technology	1	2	code
TU	1	1	code
INTERNAL	0	0	Sub theme
Change from top or bottom	1	6	code
President	1	1	code
Staff	2	3	code
Students	1	2	code
Unions	1	1	code
Change management	1	4	Theme
Academic Staff and Research	3	22	Sub theme
Change Management Key Challenges	5	37	Sub theme
Performance with Change Management	4	16	Sub theme
Support Staff	4	13	Sub theme
Complexity Theory	3	5	Theme
Culture	0	0	Theme
Culture Influence on Change	2	3	Sub theme
Current Org Culture	5	28	Sub theme
Preferred Org Culture	4	20	Sub theme
Union	3	19	Sub theme
Gender	4	11	Theme
Leadership	0	0	Theme
Change Leadership Characteristics Desired	1	55	Sub theme
Communication	5	56	Sub theme
Head of Department	1	3	Sub theme
Key Barriers to Change Leadership	4	29	Sub theme
Leadership Influence on Change	5	15	Sub theme
Leadership Performance	3	36	Sub theme
Leadership Recruitment and Development	5	46	Sub theme
President References	4	11	Sub theme
Students	2	6	Theme

Included in Table 4.4 is the number of data files linked to the theme as well as the number of codes. In total, 486 pieces of data were coded and aligned to themes and sub- themes from the five separate files which consisted of the three focus group transcripts, the survey open question responses as well as the president's interview transcript.

The final and sixth step involved using the themes as a basis for writing up the findings documented in Chapter five, and this was an iterative process of refinement. Having discussed the qualitative analysis in this study, the quantitative analysis will now be discussed.

Quantitative analysis

The quantitative data in this study was collected using the JISC online survey platform. This included data from the three pre-focus group surveys from stage 2, the staff survey from stage 3 and the pre-interview survey of the president. The closed response data were analysed initially using the JISC descriptive statistical analysis and then exported to Microsoft Excel for further analysis. The JISC survey data was also exported to SPSS to facilitate more advanced analysis. SPSS analysis included determining the Cronbach's Alpha for data reliability, which is outlined later in in the section dealing with reliability. SPSS also facilitated the exporting of the open question data to Nvivo. The open question data was then coded in Nvivo and provided additional insights into respondent perceptions on change and leadership, which complemented the interview data.

The quantitative data in this study allowed for the demographical information of participants at all stages to be collected and analysed and is presented in the findings chapter (Chapter five). Descriptive statistical analysis was used on the quantitative data to help address the research questions on its own or combined with the qualitative data. Data were then transferred to Microsoft Excel to create bar charts, to show the responses for each survey question.

Furthermore, the question responses were organised into the change leadership themes of strategy, culture, relationships, capability, and tactics previously developed in the literature review in section 3.3. The mean and standard deviation were then calculated for these

themes and displayed in bar chart form. In addition, each change leadership theme had its responses displayed in bar chart form where the presence and importance of the characteristic could be assessed side by side.

4.6 Validity and reliability

Introduction

Trustworthiness of this study has been strengthened through various approaches (Lincoln and Guba, 1985). Credibility has been addressed through prolonged engagement with the research process and data as well as regular supervisor engagements, dependability was improved using mixed methods of analysis and multiple stages, while neutrality has been assisted through careful documentation of the entire study and regular communication with my supervisor. While there is a history to use the term trustworthiness for assessing qualitative methods by looking at credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985 cited by Adler, 2022, p.599), more recently there has been calls to replace the term with rigor and continue to use reliability and validity (Adler, 2022). Merriam and Tisdell (2015, p.238) argue that for research to have any impact, the research needs to be rigorously conducted so that insights are presented that are relevant to readers. In this study, both qualitative and quantitative methods can address internal and external validity, where internal validity seeks to demonstrate that the explanation of a particular event can be sustained by the data, and external validity which determines how generalisable the findings are to the wider population (Cohen et al, 2011, p 183). While this case study does not include a representative sample of other TUs in Ireland, findings cannot be generalised but are presented to provide an understanding of change leadership for a new TU. However, as Yin (2013) suggests that it is possible to define a case being studied, then retrospectively define the broader population of relevant cases, this indicates that findings from this study could resonate with other emerging TUs.

In addition, Cohen et al. (2011) argue that validity and reliability concerns (dependability or consistency) can be approached through careful attention to the study's conceptualisation, data collection and analysis, and presentation of findings. Although this study has multiple

stages and methods, careful attention was given throughout the research process to maintain validity and reliability, which will now be further discussed.

Validity

Underlying assumptions about qualitative research is that reality is holistic, multidimensional, and ever-changing so you can never fully capture it, but triangulation using multiple methods and sources can be used to increase credibility (Merriam and Tisdell 2015). This approach is supported by Yin (2013) who noted that validity continues to be challenging for designing and conducting case study evaluation, but triangulation using mixed methods can provide increased confidence in the findings. In this case study, mixed methods are used which facilitates triangulation of findings, where qualitative and quantitative findings can be compared. The TU submission document, focus groups, staff survey and president's interview can be used together to establish findings in a credible way. While Merriam and Tisdell (2015) argue that another strategy for validity is adequate engagement in data collection so that emerging findings feel saturated with evidence, the accumulation of data from the four research stages has been sufficient to bring confidence to the findings. Although data collection and analysis can affect validity if not done so rigorously, the use of a qualitative analysis tool like Nvivo meant that I could effectively manage, code, and interrogate data for this study. Cohen et al. (2011) suggests that threats to validity can be reduced by using an appropriate timescale, methodology, sample, and instruments. The validity of this study has been strengthened by ensuring the timing of the research was appropriate, the methodology of mixed methods was suitable and aligned to the theoretical framework, the samples were justified for the purpose of the study and the instruments were suitable and piloted in advance.

Other relevant forms of validity considered for this research include face validity, concurrent validity, content validity, construct validity and cross-cultural validity (Cameron and Quinn, 2011). While face validity has been strengthened by piloting all research stages and critiquing the stage 3 survey with internal and external academic colleagues, content validity has been addressed through the careful development of research questions that were formed arising from the literature review carried out. These questions have steered the

overall enquiry and helped ensure the focus is on the issues being examined and provide sufficient breadth and depth (Cohen et al, 2011). Construct validity has also been supported through the literature review to ensure the research instruments used are appropriate for the investigation. Examples include the Cameron and Quinn (2011) OCAI and competing values which is supportive of cross-cultural validity as well as the change and leadership survey instrument from Devecchi et al. (2018). Confidence in relation to face validity of the survey instruments used has also been improved as a result of reviewing previously used survey instruments in literature to ensure similar approaches were taken in this study.

Reliability

Personal biases and positionality because of my experiences, beliefs and position of authority were reflected upon during this research, and care was taken to reduce any influence from personal bias during data gathering, interpretation and analysis phases of this study. Bias from the interviewer, interviewee and content of the questions can negatively affect reliability of interviews, but having highly structured interviews with the same format and questions can help (Cohen et al., 2011). Hence, all interviews in this study were semi-structured and piloted in advance to ensure questions were very clear and carefully designed to help participants demonstrate how they saw the world. I also refrained from providing my opinion or reaction to responses to maintain a more objective outlook and prevent interference. Power can also be a factor in the interview situation (Cohen et al. 2011) and this was mitigated by reminding everyone at the start of each interview that everyone should contribute equally. The interview selection criteria also prevented two participants having a direct reporting structure. As I was using both the Microsoft Teams recording and transcription functions, the wording of each interview transcript recording did not need to be checked with each participant afterwards, as the recordings were used to validate the transcriptions, and this also helped the reliability of the interview process.

Combining the focus group interviews with the quantitative findings increases reliability due to triangulation. Although Cohen et al. (2011) suggests that questionnaires tend to be more reliable than interviews as they can encourage greater honesty because they are anonymous, the data gathered in the focus groups appeared to be as honest as that

captured in the survey open questions. This may have arisen due to participants being aware that data captured would be anonymised, coupled with the stimulating social exchanges that took place in the focus groups. Onwuegbuzie and Leech (2005) warn that many quantitative researchers do not include reliability estimates with their data which leads to unsound research practice. Furthermore, Cohen et al. (2011 p.640) point out that a measure of reliability of internal consistency is the Cronbach alpha. This inter-item correlation measure was determined using SPSS and results are summarised in Table 4.5 below. Using the guide in Cohen et al. (2011, p.640), the change and leadership context question score is within the 'reliable' range (0.70-0.79), while the questions associated with the importance and presence of change leadership characteristic sections fall within the 'highly reliable' range (0.80-0.90), which adds weight to the overall reliability of the questionnaire used in this study.

Table 4.5: Summary of survey Cronbach's Alpha

Survey Section	Cronbach's Alpha	N of Items
Change and Leadership context (Page 3)	0.75	18
Importance of change leadership characteristics (Page 4)	0.94	25
Presence of change leadership characteristics (Page 5)	0.98	25

As ensuring validity and reliability in qualitative research involves executing the research investigation in an ethical manner, I will now discuss the topic of ethics for this study (Merriam and Tisdell, 2015).

4.7 Ethical Framework

While addressing concerns for procedural ethics is important, Cohen et al. (2011) argues that a broader interpretation of ethics should be taken, where one must consider research purposes, contents, methods, reporting and outcomes. At Maynooth University, codes of practice, ethical guidelines and committees raise ethical issues relating to research proposals so that the researcher can ensure these considerations are addressed before

proceeding further. Before data were collected for this project, an ethical application was developed, guided by the Maynooth University Ethics Policy (MU, 2019), Research Integrity Policy (MU, 2021) as well as the British Educational Researcher Association guide (BERA, 2018). After some further clarifications and amendments, overall ethical approval was granted for this study on the 16th March 2022 by the Maynooth University Social Research Committee (Ethics Review ID: 2467574).

From an ethical perspective, several issues were identified for the proposed research. To provide a firm foundation to explore ethics, the external, consequential, deontological, and individual perspectives were considered (Seedhouse 1998a, cited by Cohen et al. 2011, p 76). In addition, the key ethical concepts of consent, access and acceptance, privacy, confidentiality, and betrayal were reviewed so that actions were identified to ensure that ethical considerations were factored into my research design and approval processes.

I anticipate that the research findings of this study will have implications externally to the TU with key stakeholders such as the Department of Higher Education, Research, Innovation and Science and the Higher Education Authority (HEA). Although generalisation is limited in this study, it will be investigated to inform how actionable the findings will be externally. From a consequential perspective, there may be a perception that the campus I work in may benefit the most as I am leading the research. However, throughout the study, I have maintained the role of a student researcher, with all correspondence being carried out via my Maynooth University student email address. Furthermore, the research focuses on the three original IOTs equally, in terms of input through the focus groups and the staff survey. In addition, the launch of the survey by the president demonstrated the central nature of the research to the TU. Deontological and individual considerations have also been considered and I am confident that my personal integrity, coupled with my research supervision and ethical approval processes have assisted greatly in addressing the ethical considerations for this research.

In relation to consent, Cohen et al. (2011) state that social research typically requires consent and cooperation from participants and full information about the procedures, consequences and potential benefits should be disclosed to potential participants. I believe

informed consent is a major ethical consideration from an individual perspective and this was addressed through the pre-focus group surveys and within the staff survey, where the research information was provided and consent to participation recorded. (See Appendix 3 and Appendix 7).

As a senior manager within one of the merging IOTs, I was well placed to gain formal access and acceptance through consulting and collaborating with relevant stakeholders. However, this access and acceptance was not taken for granted, and I demonstrated that I was a trustworthy and serious researcher with an established ethical position. This was done by ensuring all communication associated with the research was carefully written and provided the context for the study and confirmation of approval from the Maynooth Ethics Committee, as well as the TU president from a gatekeeper perspective. The information sheet for all surveys provided further details on consent, confidentiality as well as contact details. In addition, the nature, scope, and potential benefits of the research were included in all invitations to participate. I also introduced myself and my professional background in an open and honest way, and this transparent approach assisted in getting buy in from participants.

From a privacy perspective, Cohen et al. (2011) argue that the right to privacy means that a person has the right not to take part in research without fear of being observed. I am aware that everyone has a right to privacy, which can be relinquished through informed consent. In this study, information was provided to potential participants prior to consent and an option to withdraw from the study without any consequences was made available to them.

Confidentiality of participants' identities (anonymity) is required in research and any violation should be made through consent (Cohen et al. 2011). Hence, names of participants were removed from recorded data and replaced with pseudonyms and other identifying marks removed also. Furthermore, data were aggregated, and password protection was put in place. For the reporting of findings, pseudonyms were used for the focus group participants and respondent numbers for the survey open questions. Although this didn't apply to the president as there was only one in the organisation, the confidentiality of the

organisations involved in this study was maintained and provided a basic level of confidentiality.

Cohen et al. (2011) states that another ethical consideration is potential betrayal or breach of trust, where data is disclosed in confidence but then revealed publicly in a way that can cause personal distress. Findings in this study have been desensitised and aggregated where relevant to ensure any dissemination of findings will strike a balance between maintaining trust of participants, while providing opportunities for the research to make an impact.

In relation to a potential conflict of interest, I am currently employed as a Head of Department within the TU. Therefore, others may perceive a conflict of interest in that assumptions could be made that I will have a vested interest for my department or faculty to benefit the greatest from this research. To mitigate against this risk, I have reflected on my own positionality in this study, previously outlined in section 4.2. Furthermore, the research design collects diverse views through using mixed methods and encompasses all internal stakeholders via focus groups and interviews without any particular focus on one faculty or campus.

Although power relationships may influence the interaction and openness of some colleagues, I carefully selected participants as outlined previously in section 4.3 and facilitated all attendees to contribute equally to mitigate these concerns. Furthermore, by reflecting on my positionality, I was better equipped to understand potential bias.

Data Protection legislation and Maynooth University Guidelines for Data Collection, Storage, Retention and Disposal were used to guide the overall data management process. A file linking the data to the actual organisations and participant names was stored in a separate location to the raw data and will be destroyed on completion of this thesis. All data were in electronic form only which eliminates the requirement for hard copy storage. With regards to data access and security, access was limited to the main researcher only. Also, data which includes consent forms, survey and focus group raw data were stored securely on the Maynooth cloud server (OneDrive) in a file that is accessible only by the main researcher.

Conclusion

As a positional leader in higher education, I have developed a strong interest in change and associated leadership required to deal with the multitude of challenges facing this complex social environment. Seeking pragmatic findings to address this interest as well as the gaps in literature, complexity theory was chosen for a suitable theoretical framework, which brings a holistic, systems perspective to this study. A mixed methods approach was chosen as it aligns to this framework and is best suited to address the research questions. This four-stage sequential research process was carefully planned and structured to ensure each stage progressed from the previous one, while maintaining constant focus on the goal of addressing the research questions.

This chapter positions this investigation within the post-positivist pragmatic research paradigm. My educational and professional experiences have provided me with broad knowledge and allowed me to empathise with participants. As an insider in this research, I have reflected on my own positionality and understand how my personal biases may influence this research. A careful sampling selection process was undertaken, all instruments were piloted, and the data from all stages were combined to answer the various research questions. Having reviewed validity, reliability and ethical considerations, a robust foundation has been set to proceed with this research.

Reflecting on the research design and data gathering phase of this study, I found the piloting phase of the focus groups and survey very important from a personal perspective. In addition to ensuring these activities would capture appropriate data that complied with all guidelines in relation to validity and reliability, it also strengthened my confidence with using them. Although I felt the 4 stages in the design was reasonably complicated, I believed its comprehensive nature would uncover interesting insights from all key stakeholders in this study and that a mixed methods approach using a pragmatic philosophical paradigm resonated with my own outlook. I felt targeting all internal stakeholders was appropriate given that typically all types of stakeholders are involved in change and its success depends on their diverse input. In the next chapter, research findings will be discussed.

Chapter 5 Findings

5.1 Introduction

This chapter presents the research findings, casting light on how change and associated leadership are understood by different stakeholders within the emerging TU. The study was guided by one overarching research question and four subquestions. The primary research question is *'How do stakeholders experience and value change leadership?'*

The four sub-research questions are:

- *Q1: What are the main change drivers, cultural and contextual factors for change?*
- *Q2: What are staff perceptions about change and leadership?*
- *Q3: What are the challenges for change management and leadership?*
- *Q4: What are the importance and presence of change leadership characteristics?*

Demographics of the research participants are presented in the beginning of this chapter. This is followed by a qualitative analysis of the TU application document, arguably the first common voice of the three merging organisations. The chapter is then organised under each of the four subresearch questions. Data from the senior management focus groups, staff survey and interview with the president are presented under each subquestion where appropriate, combining both qualitative and quantitative data in some cases. Quotes are used to provide key pieces of data that illuminate the stakeholders' perceptions and experiences and are italicised throughout this chapter. Key findings for the primary research question are then presented as well as a conclusion.

5.2 Research participants

As part of stage 2 of this research, three focus groups took place online with staff from each of the three institutes, while stage 4 consisted of an Interview with the new TU president. At the start of these stages, a pre-interview survey was conducted with participants to capture demographical data and various perceptions. In addition, the stage 3 survey captured

demographical data of respondents. This section will provide an overview of findings relating to all the participants of these stages.

Stage 2 focus group and stage 4 interview participant demographics

Each participant completed a pre-interview survey to record consent and provide demographical information (and initial perceptions on change and leadership). While an outline of participant demographics was discussed in the previous chapter (section 4.3), the main participant demographic findings from these surveys are presented in Table 5.1 below. The '*' indicated beside some of the pseudonyms denotes their position as a manager, otherwise the participant is an executive member (head of school, registrar etc). Also, the '(A)' denotes an academic position.

In total, seven non-academic and eight academic staff took part in the focus groups, which was a good balance between these two main cohorts of staff. The age spanned from 31 to 65 years with the years in higher education being from less than five years to more than 30. In relation to the number of years in their current position, it was interesting to note that seven participants were less than five years in their current position, while three were only 5-10 years. This could indicate a lot of change in positions and recruitment activity at management and executive level.

A reasonable balance in gender was present, with 60% being male and 40% female. There is also a mix between senior management and executive members and between academic and non-academic positions. The most frequent range of experience in higher education was considerable at between 21 and 30 years, with only one participant having less than 5 years. 53% of focus group participants were less than 5 years in their current position (8 participants). This could indicate a lot of role changes, promotions or new positions being created in the organisation.

Table 5.1: Focus group and interview participant demographics

Focus Group/ Interview	Org.	Pseudonym	Position	Gender	Age range	Years in Higher Ed.	Years in current position
Focus Group 1	A	Colum	Research and innovation	Male	56-65	21-30	<5 years
Focus Group 1	A	Kelly*	Head of Department (A)	Male	31-45	11-20	<5 years
Focus Group 1	A	Kate	Financial Controller	Female	46-55	5-10	5-10
Focus Group 1	A	Fred*	HR Manager	Male	46-55	<5 years	<5 years
Focus Group 1	A	Sean*	Head of Department (A)	Male	31-45	5-10	<5 years
Focus Group 1	A	Glenda	Registrar (A)	Female	46-55	21-30	<5 years
Focus Group 1	A	Joan	Head of School (A)	Female	46-55	11-20	<5 years
Focus Group 2	B	Gavin	Financial Controller	Male	46-55	5-10	5-10
Focus Group 2	B	Martin	Head of School (A)	Male	46-55	21-30	11-20
Focus Group 2	B	Brenda*	Head of Department (A)	Female	56-65	>30	11-20
Focus Group 2	B	Grainne*	HR Manager	Female	31-45	21-30	<5 years
Focus Group 3	C	Harry	Registrar (A)	Male	56-65	21-30	11-20
Focus Group 3	C	Gary*	IT Manager	Male	31-46	11-20	5-10
Focus Group 3	C	Nina	Head of School (A)	Female	46-55	21-30	11-20
Focus Group 3	C	Frank	Financial Controller	Male	56-65	21-30	21-30
Interview	C	President	President	Female	46-55	>30 years	<5 years

After the focus groups and staff survey took place, an interview was held with the new TU president to discuss initial findings and gain insights into her understanding of change and leadership. At the bottom of Table 5.1 we see that she has over 30 years' experience in Higher Education and was recently appointed as president of the new TU. Previously she

held to post of president of one of the three IOTs. Demographical findings of the stage 3 staff survey will now be reviewed.

Stage 3 online survey respondents

A total of 371 respondents completed the staff survey out of a potential 2,215 staff. Figure 5.1 below shows that 55% of participants were female, and 43% male. Five respondents preferred not to indicate gender, while one respondent selected 'Other.' Overall there was a good balance between respondent gender types.

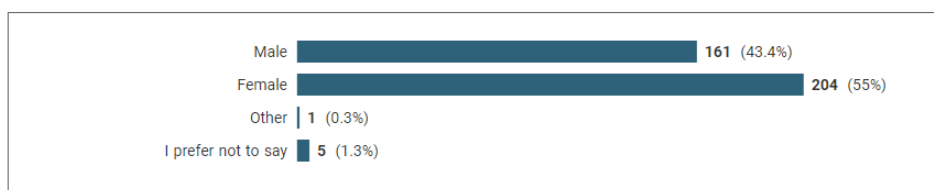


Figure 5.1: Respondent gender

Figure 5.2 below provides an overview of respondent age range. The most frequent age of respondents is between 46 and 55 years (41%).

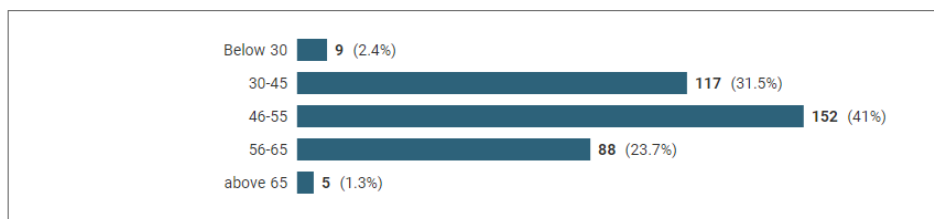


Figure 5.2: Age range of respondents

Figure 5.3 below shows a broad range of experience of respondents, the most frequent range of experience in higher education was between 21 and 30 years (over 28%). Only 7% of respondents had more than 30 years experience.

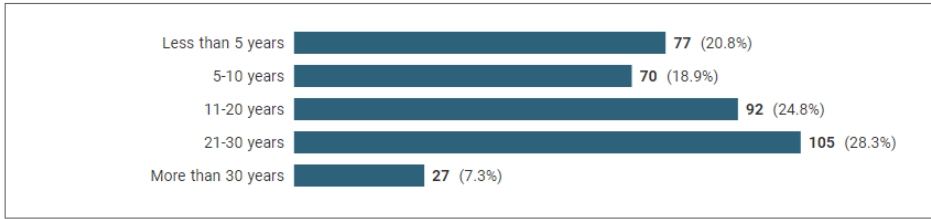


Figure 5.3: Respondent experience in higher education

In relation to respondent duration in their current role, Figure 5.4 below shows a wide range with the most frequent being less than 2 years (over 24%). This could be as a result of new staff hires or staff that have changed roles in recent times.

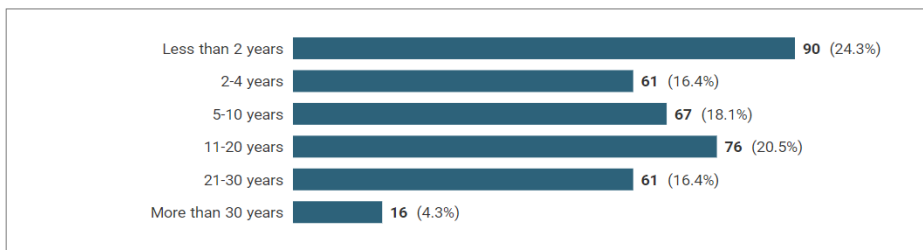


Figure 5.4: Respondent years in current position

The survey was circulated to all staff in the three IOTs (organisations A, B and C). Figure 5.5 below shows that the highest number of respondents came from organisation C (36.4%), while the least number came from organisation B. 3.5% of participants were not linked to a specific organisation and could have been recently employed for a role across the TU.

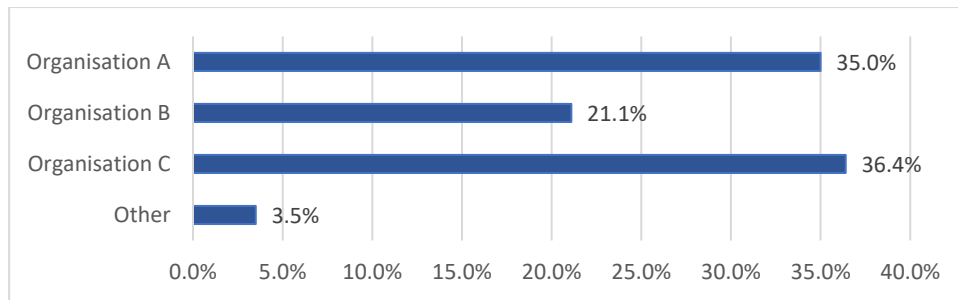


Figure 5.5: Organisation of respondent prior to TU designation

Regarding respondent primary roles, Figure 5.6 below shows a good spread of roles were included in the survey. Almost 54% of respondents were in teaching related roles, which is almost identical to the 53% of the overall TU staff profile indicated in the TU submission document³. Nearly 26% were non-management professional, management, and support staff (PMSS). Approximately 14% were a combination of senior management and executive staff (prior to TU designation) as well as the two IOT presidents. Overall, there was a good representative spread of participants across the organisation to include a diverse range of views.

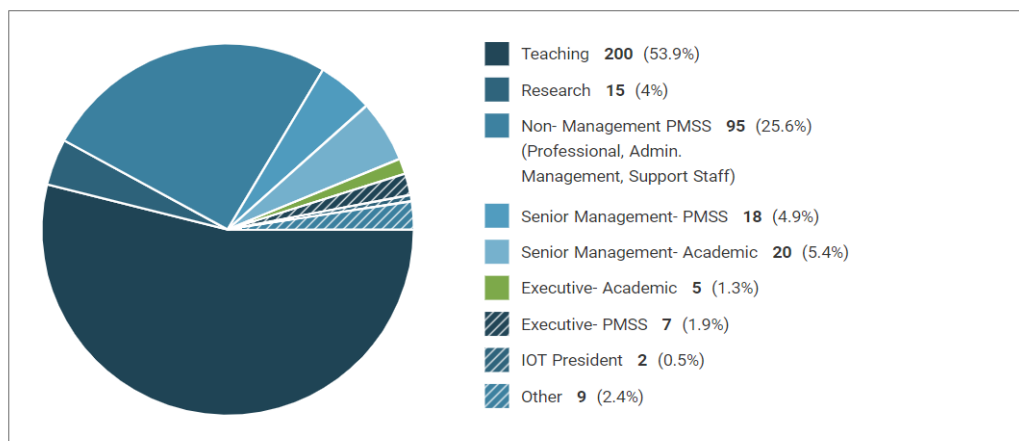


Figure 5.6: Role of respondents

Figure 5.7 below shows the faculty area relevant to each respondent. Non-academic staff chose the 'N/A' option in this case. From a faculty perspective, there was also a good spread

³ The TU submission document is not formally referenced to prevent disclosure of the institution.

across the four primary areas, the highest was engineering/ technology at nearly 24%, while the lowest was the creative and cultural related area at 6%, which would have the smallest number of staff. This indicates a diverse range of academic views have been captured in the survey.

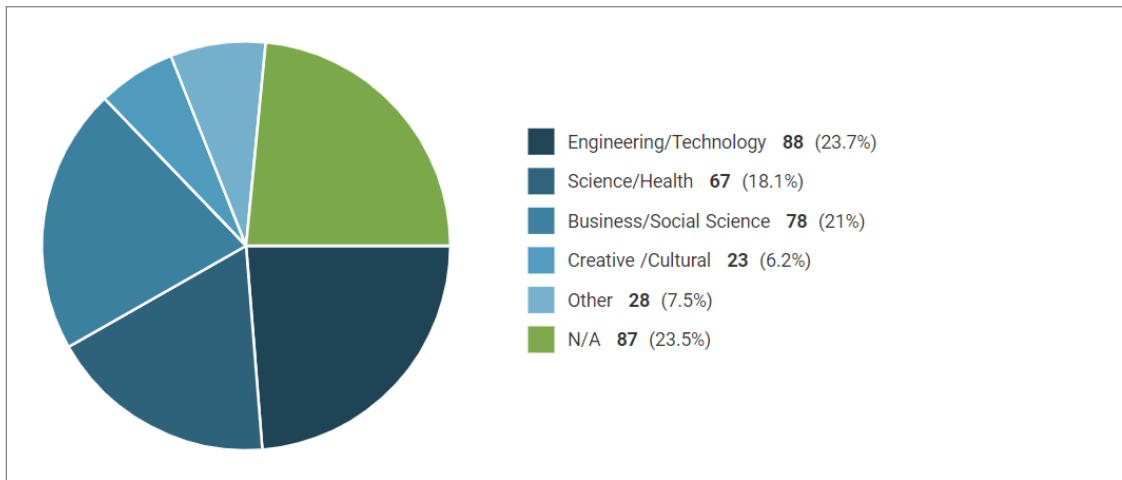


Figure 5.7: Faculty area of respondent

Cross tabulation by gender

In relation to the cross tabulation Table 5.2, female respondents were younger than males for all categories except for 56-65 and above 65, and over 13% of males compared to almost 3% of females have worked in the HEI sector for more than 30 years (Table 5.3). Table 5.4 indicates that slightly more females than males are employed less than 5 years in their current position while men have a higher occurrence in the 21-30 years and more than 30 years category. Overall, this would suggest that the TU may be improving its gender balance through new recruitment. However, the data in Table 5.4 could also suggest that females are more open to change in roles than men.

When assessing the primary roles of respondents in Table 5.5, males occupied most of the teaching and research positions and senior management positions (both academic and PMSS by a factor of almost 3), while females occupied most of the non-management PMSS positions by a significant margin (by a factor of 3). Although academic respondents at executive level were mainly male, the majority of PMSS executive respondents were female.

While there is reasonable gender balance at the executive level, there is a significant presence of males at the senior management level. Overall, it appears that most females are teaching (almost 52%) or non- management PMMS staff (almost 36%). Regarding Table 5.6, most male academic respondents were assigned to the engineering/ technology related faculties (almost 41%) while females were the highest in all other faculties, which indicates significant imbalance especially in engineering.

Table 5.2: Respondent age

3 What is your age?

What is your age?	What is your gender?				No answer
	Male	Female	Other	I prefer not to say	
Below 30	1.86%	2.45%	0.00%	20.00%	0.00%
30-45	30.43%	32.84%	0.00%	20.00%	0.00%
46-55	35.40%	45.10%	100.00%	40.00%	0.00%
56-65	29.81%	19.12%	0.00%	20.00%	0.00%
above 65	2.48%	0.49%	0.00%	0.00%	0.00%

Table 5.3: Respondent duration employed in sector

4 How long have you worked in the Higher Educational Sector?

How long have you worked in the Higher Educational Sector?	What is your gender?				No answer
	Male	Female	Other	I prefer not to say	
Less than 5 years	18.63%	22.55%	0.00%	20.00%	0.00%
5-10 years	20.50%	17.65%	0.00%	20.00%	0.00%
11-20 years	20.50%	27.94%	0.00%	40.00%	0.00%
21-30 years	27.33%	28.92%	100.00%	20.00%	0.00%
More than 30 years	13.04%	2.94%	0.00%	0.00%	0.00%
No answer	0.00%	0.00%	0.00%	0.00%	0.00%

Table 5.4: Respondent duration in current position

5 How many years have you been in your current position?

How many years have you been in your current position?	What is your gender?				No answer
	Male	Female	Other	I prefer not to say	
Less than 2 years	19.25%	27.94%	100.00%	20.00%	0.00%
2-4 years	14.29%	18.63%	0.00%	0.00%	0.00%
5-10 years	23.60%	13.24%	0.00%	40.00%	0.00%
11-20 years	16.77%	23.04%	0.00%	40.00%	0.00%
21-30 years	19.88%	14.22%	0.00%	0.00%	0.00%
More than 30 years	6.21%	2.94%	0.00%	0.00%	0.00%
No answer	0.00%	0.00%	0.00%	0.00%	0.00%

Table 5.5: Respondent primary role

7 What was your primary role in your institute, prior to TU designation?

What was your primary role in your institute, prior to TU designation?	What is your gender?				No answer
	Male	Female	Other	I prefer not to say	
Teaching	57.14%	51.96%	0.00%	40.00%	0.00%
Research	5.59%	2.45%	0.00%	20.00%	0.00%
Non- Management PMSS (Professional, Admin. Management, Support Staff)	12.42%	35.78%	0.00%	40.00%	0.00%
Senior Management- PMSS	8.07%	2.45%	0.00%	0.00%	0.00%
Senior Management- Academic	8.07%	2.94%	100.00%	0.00%	0.00%
Executive- Academic	1.86%	0.98%	0.00%	0.00%	0.00%
Executive- PMSS	1.86%	1.96%	0.00%	0.00%	0.00%
IOT President	1.24%	0.00%	0.00%	0.00%	0.00%
Other	3.73%	1.47%	0.00%	0.00%	0.00%
No answer	0.00%	0.00%	0.00%	0.00%	0.00%

Table 5.6: Assigned faculty of respondent

8 If you are assigned to an academic faculty/school, please select the domain most appropriate, otherwise select N/A.

If you are assigned to an academic faculty/school, please select the domain most appropriate, otherwise select N/A.	What is your gender?				No answer
	Male	Female	Other	I prefer not to say	
Engineering/Technology	40.99%	10.78%	0.00%	0.00%	0.00%
Science/Health	16.15%	19.12%	0.00%	40.00%	0.00%
Business/Social Science	15.53%	25.49%	0.00%	20.00%	0.00%
Creative /Cultural	6.21%	6.37%	0.00%	0.00%	0.00%
Other	5.59%	9.31%	0.00%	0.00%	0.00%
N/A	15.53%	28.92%	100.00%	40.00%	0.00%
No answer	0.00%	0.00%	0.00%	0.00%	0.00%

Conclusion

This chapter section has reviewed the participant demographics of the focus groups, survey, and president's interview. Through this multi-staged, mixed methods approach, a broad range of voices have been captured that reflect the diverse cohort within the emerging TU. While half of focus group participants are in their role less than 5 years (8 participants) and the most frequent survey respondent duration in their role is 2 years (over 24%), this suggests that a lot of change is happening with the hiring of new staff in addition to internal role changes. Using cross tabulation, we gain additional insights which suggest that although females occupy most non-management PMMS positions and are much less present in senior management posts, there is a better balance at executive level and recruitment may be improving overall gender balance. We also identified that when looking at gender balance by faculty, there is a reasonable balance across faculties except for Engineering/ technology where males occupy most academic posts. We will now proceed to examine the TU Submission document to get an overview of the first common voice of stakeholders.

5.3 Qualitative review of technological university submission document

Introduction and the compact agreements

To get some insights into the context of the emerging TU as well as start to address the first subquestion in this study as well as understand the emergence of the TU and its values embedded in its early work, a content analysis of the TU submission document was conducted. This document issued in 2021, was identified as significant for this study because it was the first common voice of the emerging TU and provided additional insights in relation to proposed structure, environment, finance, research, innovation, and engagement. The document was created through the collaboration of the three merging IOTs to demonstrate how the proposed new HEI would achieve the key criteria stipulated to be designated as a technological university. Many committees were formed to deal with the various tasks involved and to promote engagement and cross organisational collaboration.

During the merging process of the three institutions and the development of the TU submission, each institute carried out its own self- evaluation report submission as part of the Strategy and performance dialogue 2018-2021 related to the Higher Education System Performance Framework, discussed previously in 2.4. The main sections are section B which covers the overview of institutional strategic development and performance, and Section C which discussed key system objectives. A review of section B in each of the three documents was undertaken to uncover some additional perspectives from each individual institute about the TU merging process, which is the main purpose of the TU submission document. It was also noted that each of the three institutes were awarded Athena SWAN Bronze Institutional Award during this period, which indicated progress on gender equality.

In relation to the TU merger, Organisation A referred to it as the *'overarching achievement over the life of this compact'* and that it delivered the national policy for Higher Education 2030 (national strategy) and was the main KPI for their organisation. Referring to the emerging TU, they say that *'the TU will be one university for a unique region and will (i) attract more students from the region ... (ii) enhance access to teaching and research expertise..., and (iii) more strongly support existing companies and new-start-ups in the region. With the greater critical mass, the TU will be a strong member of the regional team of agencies to attract inward investment and to build a more balanced national economic distribution.'* Overall, this puts the achievement of a TU as the most important KPI for the organisation that they believe will have significant potential for regional investment and support. Reflecting on the TU merging process and key learnings, organisation A highlights the need to *'take time to build trust, mutual respect and understanding of what each partner brings to the relationship. Without that it is difficult to create collaborative teams across any of the functions needed to deliver high quality higher education and research.'* Given that the process started in 2012, it appears that a foundation of trust was established over that period which led to effective collaboration.

Organisation B also highlights the achievement of the TU as being *'the key focus of the strategic plan'* of their institute. Focusing less on the potential benefits of the TU to the region, organisation B references the process of working together during the pandemic leading to the achievement of the TU metrics and a strong application. Organisation B

references the *'range of collaborative initiatives* and the process leading to *'strong collegial relationships'* between the three partners which supports organisation A perspective of more collaborative initiatives based on trust and respect.

Finally, organisation 3 refers to the pursuit of TU status and that it *'became the dominant strategic objective and had a direct impact on the activity'* there. This indicates that this organisation may have been less progressive than the other two and that this change may have been less organic and potentially more externally driven, through a more top-down approach to change. Furthermore, this is supported with challenges around achieving the TU metrics, where *'significant efforts were made to align activity.'* No additional insights were provided by organisation 3.

Having reviewed the section B- institutional strategic development and performance for each institute, we see different perspectives on the TU merger. Organisation A provided the most insights and may have led the development of trust and respect to lead to effective collaboration, while organisation B also indicated strong collegial relationships and collaborative initiatives. However, it appears that organisation C was less progressive, but made good progress through *'significant efforts'* to achieve the TU metrics. This information also aligns to my own personal experience of the TU merging process. In conclusion, Organisation A may have been the long-term driver of the TU project with its partners, while organisation B participated fully, while organisation C was less progressive but stepped-up progress to contribute to a successful TU application. From my experience this is how the dynamics played out over the last decade and demonstrates the different roles each had in its formation, which may correlate with the type of leadership present at that time. The formal application for designation as a technological university submission document will now be examined to provide some additional insights and valuable context for this case study.

TU submission document overview

In chapter 1 of this document, the context of the TU application is presented. Three institutes were outlined, all established in the early 1970's. Over the years, additional campuses were created and at the time of the submission, 8 campuses and 8 research

centres existed across the west and north-west of Ireland, covering over 32% of Ireland's landmass where only 18% of the population resided. This data indicates the complexity and geographical spread of the proposed new entity, as well as the challenge to recruit local students where were less plentiful than other regions. With a combined income of €208m per year (35% being from state grants and 28% from fee income) and over 593 academic programmes, the total staff headcount was 2,215 and total student population was over 20,000. This would position the new TU as one of the largest in Ireland. While contract research income was €11m and increasing, the student demographic was becoming more part-time, increasing from 21% to 34% the overall student population between 2014 and 2020. This suggested the increasing presence of innovation in terms of teaching modes to cater for more diverse student cohorts.

In the next chapter, an overview of the new TU is outlined, including the vision and mission, values and proposed strategic pillars on which the TU is built. The rationale for the TU is put forward and how it will be achieved, and a roadmap presented on how this plan is realised. A new TU organisational structure is also presented, encompassing the three IOTs. The vision of the TU is to *'educate and inspire people and develop talent to enable the sustainable economic, social and cultural development of our region and beyond.'* This demonstrates the importance of the region to the TU which aligns to the past of the IOTs. The TU mission includes building capacity and community in the region through excellent, flexible and innovative academic programmes and advancing knowledge through research and engagement. This suggests that teaching and learning will be the main priority like the past of the IOT sector, while growing research and innovation will also be a strategic priority. Values listed in the submission document include integrity, respect, innovation, initiative, excellence, sustainability, inclusivity, equality and agility. While integrity and inclusivity are included in the culture related change leadership characteristics identified in literature, innovation, initiative, excellence and agility resonate with emergence and alignment. Various milestones of the TU initiative were listed starting in July 2012 when the three IOT presidents signed a memorandum of understanding (MOU) to form an alliance. From this point, a formal expression of interest was submitted for re-designation to the HEA in 2015 when subsequent funding was provided from the HEA to facilitate the support this

initiative. Once the TU Act (2018) was signed into law, in March 2018, meetings of joint management groups took place in 2019, a TUI industrial relations forum formed in November 2019 and the completion of the TU criteria audit took place in November 2020. This long path taken indicated the protracted nature of the merger which took over 8 years to complete and was held back mainly due to supportive legislation.

Government structures and engagement activities with various stakeholders such as groups, staff and unions are outlined in chapter 3, while chapter 4 provides an overview of the academic profile of the TU and chapter 5 covers research, innovation and engagement. Chapter 6 gives some insights into the support infrastructure for the TU and an outline of finances is provided in chapter 7. Chapter 8 deals with how the proposed TU is meeting the TU designation criteria outlined in the TU Act (2018).

Having provided some context to the emerging TU as outlined in the TU submission document, a qualitative review of this document will now be carried out to better understand the narrative within the emerging TU. The document was imported into Nvivo and was then analysed using word cloud and word frequency analysis. The primary objective of this analysis was to identify the main themes or words emerging from this document as well as assess the topics of change, leadership, management culture etc.

Overall word frequency

Figure 5.8 shows an initial word cloud generated from Nvivo of the 100 most frequent words in the TU submission document, with minimum length of 4 letters.

Change

Change was identified as the third most frequent theme which relates to the words; research, development, and project. Significant change and development occurred within the three IOTs relating to achieving the TU criteria, such as collaboration, increased research student output and staff with doctoral qualifications.

Engagement

The next theme identified was engagement, both within the organisations and externally with their communities, regions, and external regulatory environment. Industry engagement and enterprise support as well as positive engagement with staff and students are areas of note. This suggests collaboration was important and indicates the influence of the external environment.

Staff

The last theme identified is associated with staff in terms of various research groups, steering groups, sub-groups and working groups utilised to achieve TU metrics and change and collaboration. Staff training, qualifications and skills are important assets for TU designation, and a shared responsibility was created for achieving TU metrics.

Specific themes for this study

In addition to identifying the key themes within this content analysis, word searches on specific themes relevant to the research questions were carried out which brought out interesting results. These deductive themes relevant to this research are change, management, leadership and culture.

Change, management, leadership, and culture

The word search for change and management introduces some of the change drivers such as environmental sustainability and technology. The document suggests that the three IOTs have been able to collaborate and be open to change and new challenges (especially the PMSS staff) through the compilation of the TU submission. It is evident in the document that this was achieved through a comprehensive communication and consultation plan, and that as the TU emerges, research and innovation output will see a step change. Many future

changes are alluded to from a student, research growth and systems perspective. Performance management, project management plans, structures and teams, safety management systems, facility and energy management were also listed, which give an interesting insight into the broad range of changes taking place.

Leadership

When searching for the word leadership, the term 'distributed leadership' emerges from the document with references to transition structures and the proposed executive board. While distributed leadership resonates with the collaborative initiatives discussed in the compact documents and the TU submission, it also appears to be a style of leadership desired for the future TU. Leadership development is also referenced. In addition, the leadership position in lifelong learning is highlighted. In the document it states that the emerging TU *'has an extensive structure, which provides the governance, management, engagement and thought leadership to establish an excellent TU.'*

Culture

When performing a word search for 'culture,' external culture is referenced such as regional cultural and civil development and the creative and cultural industries. Internally, the document states that *'the cultural antecedents of a new TU are already in place,'* but little information is provided on how this might look. Given the merging process was at its early stages, and the three organisations has separate cultures, it would be expected that a common culture was not well defined in the document.

Conclusion

In this content analysis of the TU submission document, key themes emerge from word frequency analysis. These themes are education, TU designation, change, engagement, and staff. It is clear to see education being central to the emerging TU and the importance of engagement with staff to achieve the required changes associated with TU criteria. A distributed leadership culture seems to be emerging, and there is little reference to culture within the document. This perspective is supported by the review of the three compacts written during this period, which alluded to the development of trust and respect to enable

collegial relationships that led to collaborative initiatives. This exercise provided a useful introductory overview of the emerging TU context and facilitated the distillation of central values of the merger as articulated in the document, which was useful in preparation for the future research stages. This is of course a partial view but provides a helpful starting point for the understanding of the three IOTs quest to become a TU and their developmental stage for their change related activities, leadership, and culture. Building upon findings from this content analysis, the next section will proceed to answer the first subquestion.

5.4 Drivers, cultural and contextual factors for change

To address the first subquestion '*what are the drivers, cultural and contextual factors for change,*' this section presents relevant findings from focus group and interview data. References to the TU submission document from the previous section are used also where appropriate. The main external change drivers are identified first, followed by a review of other contextual factors that emerged from the data. The current and preferred culture of the emerging TU is then assessed using the Organisational Culture Assessment Instrument (OCAI) followed by a conclusion.

External change drivers

Change drivers provide important insights into the source and type of changes facing HEIs that leaders need to respond to. Although many different change drivers were identified within the focus group discussions, the most frequently mentioned was the Covid-19 pandemic. According to the focus group participants, the pandemic has led to many positive changes as well as challenges. From a positive perspective, participants mentioned the significance of the pandemic as a catalyst for digitisation, '*which could have taken years but actually happened overnight*' (Harry). The pandemic has also created the opportunity for a hybrid working model and '*flexibility to pick up the kids*' (Fred). Breda suggests that it has made people more acceptable to change, while Gary suggests that it has facilitated increased collaboration and knowledge sharing. From a finance and corporate services perspective, Frank states that '*remote working allows us to leverage the total resources across the three locations.*' However, negative consequences have also been identified by participants such as work life balance where '*now we don't go home at 6pm, we keep*

going...its more blurred now' (Sean). Health concerns (Grainne) and increased competition in online learning (Kate) were also flagged. The significance of Covid-19 pandemic was unquestioned amongst participants, as the following quotes from Harry and the president show: *'The change brought about by Covid is probably the single biggest change that I've seen happen'*(Harry) and *'our whole way of life was changed significantly for two years (president).'* Overall, the significant impact of the Covid-19 pandemic on participant's working and personal lives has been captured in this study, and as a disruptive change driver, forced people into a new way of life.

Equality and diversity were identified as another key change driver with multiple implications. Equality in relation to gender balance, particularly in leadership roles, was a key issue raised by participants and the Athena Swan equality charter was seen as a positive influence on improving gender balance (Kate). However, the president felt more progress is needed for equality, diversity and inclusion, stating that *'I don't see those practiced as much as they are preached... the meaning of gender and cultural equality should be much more strongly conveyed among people, especially those in any kind of leadership roles, to see this as a new norm and to get this implemented without any unconscious bias.'* A female lecturer (respondent #269) cautioned that gender balance initiatives may need to be regulated to prevent a perception that *'males need not apply.'* Grainne has related concerns and warned that recruitment should still select the right person. In relation to diversity, respondent #308 suggested that *'we need more focus on recruiting staff from overseas, from different cultures, to help form a diverse multi-disciplinary team, both within the faculty and at senior management level. The university is too parochial at present.'* These findings suggest that although progress is being made in female leadership training, more work is needed to improve gender balance and overall diversity, and this could be linked to culture change.

Government policy and funding was identified by participants as another important change driver. Martin suggested that this can impact such topics as pay deals and early redundancies and highlighted that the regulatory environment and compliance is getting stronger. Frank agreed and highlighted that the HEA Act (2022) is going to have huge impact on higher education going forward as the evolving funding model will drive change. Frank also suggested that one of the objectives of the Hunt report (TURN, 2019) issued after the

last recession in 2009, was *'looking to try and do more with less.'* Related to this, Nina raises some concerns about new managerialism and suggested that *'education has become a business, maybe possibly because of the funding model or maybe because of the lack of a funding model.'* The HEA compact (discussed in section 2.4) is driving the HEA agenda in terms of change as it can hold back up to 10% of funding from HEIs who are seen as not complying to the compact objectives. These findings highlight the importance of government policy and funding as a change driver and the current pressure on HEIs to do more with less through the increasing influence of performance framework frameworks.

Internationalisation, sustainability, and technology were other change drivers identified. Internationalisation is evident in the TU submission document where an internationalisation strategy framework is presented, which encompasses growth plans within the TU as well as abroad and includes the internationalisation of research. The opportunity of driving a step-change in environmental sustainability in the region is also highlighted within the TU submission document. From a technology perspective, Martin referenced the role and impact of technology, which also relates to the Covid-19 pandemic previously discussed. In addition, Grainne raised the issue of extensive alignment of various technology related tools and systems for the merging process (Grainne).

Overall, a rich variety of external change drivers have been uncovered through this study. They include the Covid-19 pandemic, which was perceived as the largest change ever to the sector as well as equality, diversity and government policy and funding. Other drivers identified were internationalisation, sustainability, technology, and the TU merging process. Collectively these change drivers are causing a significant amount of change within the HEI sector and will need to be managed carefully. We will now take a closer look at the context of the emerging TU to deepen our understanding of its situation.

Contextual factors

In addition to change drivers, internal contextual factors for change were identified in this research. Tensions between academic and support staff and the TU formation were key factors raised. It emerged through focus group discussions, that support staff/ professional management and support staff (PMSS) have been more impacted by the TU merging

process than academic staff. Support staff have already collaborated across the campuses and are restructuring, while according to some participants (Joan & Brenda) there has been limited collaboration with academics who have more anticipation of change rather than actual change on the ground. In addition, Fred suggests that *'academics are like sole traders who can work in isolation and be reasonably successful doing so, while PMSS staff must be more team centric because there are a lot more dependencies.'* Harry and Gary agree that after the TU merging process, academics will still teach the same students and little change is happening for them at present. Gary highlights additional tensions between these groups and believes that *'there's a cultural divide or academic snobbery, but equally as well, there can be sometimes professional derision or lack of respect....there isn't the cohesion between the academic side and the professional services side.....It's not broken but that respect element isn't equal.'* These findings reveal some cultural differences and tensions that may be negatively affecting relationships and collaboration between administrative and academic staff and could be impacting change processes.

Although academic staff between the three IOTs have been competitors for almost 50 years, Sean suggests that this competition will be less prominent as collaborative opportunities are created through TU formation. Kate highlighted the growing importance of research but alluded to constraints in place which may inhibit growth. While the OECD report (2023a) highlights that staff have no defined obligations on research, Joan suggested that the report's recommendations could help address some of the current issues with research. However, alluding to the possibility of staff being obliged to spend their current summer holidays focusing on research, Sean pointed out that there may be *'massive resistance'* to change and that this change could take many years. Joan also warns of the competitive culture of academia where academics are judged on their publications and profile, not by collaboration internally, and is not conducive to teamwork. Participants also suggested that a fine balance will be required to prevent teaching becoming less and less important because of a new focus on research metrics. For example, Glenda argued that teaching a first-year class should be seen as important as publishing. Overall, from these findings we see many tensions associated with the TU mandate to grow research. Although the OECD report (2023a) may have recommendations to increase the research capabilities of

emerging TUs, many challenges are likely if such recommendations were to be implemented.

Rationalisation and efficiency were topics raised by senior management focus group participants. Joan believes that the geographical scale and multiple campuses that must be managed by the new leader will be challenging, while Grainne suggests that a new structure is needed as soon as possible to prevent the organisation from lingering and risking duplication. Related to this, there is a perception that there may be excessive programme duplication across the campuses. Sean suggests that *'carrying a portfolio of 600 programmes is insane'* and that some sort of rationalisation is needed to reduce the volume of non- value-added activities. However, the president suggested that *'It would be better to put ourselves in a position to develop opportunities as opposed to focusing on rationalisation which may happen in time, the current opportunity is to come together and doing things together to support out wide agenda. We are about regional provision so a more positive aim of saying we create opportunities to ensure that we deliver in a meaningful way.'* This suggests that the president is anticipating a less confrontational approach initially. However, while identifying opportunities as a positive initiative, the sensitive topic of rationalisation will need to be dealt with over time.

From these contextual factors that emerged from focus groups, tensions between academic and support staff have been found, which indicate differences in culture that could negatively affect relationships and collaboration. Although growing research is a key metric for the new TU, various inhibitors were revealed. There is also mixed opinion on rationalisation. As contextual factors highlight differences in culture and competing values, which are important in understanding challenges that exist for making change, cultural findings will now be presented.

Culture

Having reviewed the external change drivers as well as the internal contextual factors of the emerging TU relating to the three organisations, various tensions, influences and metrics, culture will now be reviewed. Culture is associated with the values and assumptions that characterise an organisation (Cameron and Quinn, 2011 p.18) and is a key contextual factor

for change processes. In this study, stakeholders' perceptions of organisational culture are understood using the Organisational Culture Assessment Instrument (OCAI) that uses the competing values framework previously discussed in Chapter three (section 3.2). Senior management participants of each focus group as well as the president provided scores for the organisational leadership culture through the pre-focus group survey. Drawing on the leadership domain of the OCAI (Cameron and Quinn, 2011), the following was the specific survey question: *'In the context of your institute's organisational culture and leadership prior to designation as XXX, divide 100 points among these four alternatives, depending on the extent to which each alternative is similar to your organisation. The more similar, the higher the points.'* Four scores were then requested from participants, prompted by the following: Leadership in the organisation is generally considered to exemplify:

- Mentoring, facilitating, or nurturing (collaboration/ clan)
- Entrepreneurship, innovation, or risk taking (creative/ adhocracy)
- A no-nonsense, aggressive, results-orientated focus (compete/ market)
- Coordinating, organising, or smooth-running (control/ hierarchical)

Although focus group participants were generally interested in the OCAI tool and the and discussions it triggered, some had mixed views. For example, Brenda suggested that culture depends very much in your perspective. Martin highlighted the challenges around measuring culture and believes that *'culture is innately tribal.... and some people may be members of more than one tribe but when you look at this at an aggregate level in terms of culture, you might find in terms of different tribes within the organisation that those cultures scores change.'* Fred believes that leadership has a strong influence on organisational culture. He argues that the culture of an organisation typically reflects the characteristics of the leader or the leadership team, but primarily it's of the person that's the commander-in-chief. It becomes evident from the focus groups that participants consider organisational culture as something that is evolving. This may be due to multiple cultures being present as well as the consolidation of the three previous IOT cultures, to form a new overall TU culture.

In this context, the next sections will examine the organisational culture scores provided by senior management participants of the focus groups. These scores relate to the leadership domain of the OCAI tool (Cameron and Quinn, 2011) and were presented and discussed collectively at the focus groups and interview. Findings show differences between the three IOTs and establish an overall current and preferred organisational culture of the emerging TU as perceived by senior management participants. Findings from other stages have also been incorporated into these findings where appropriate. While Schein & Schein (2016) point out the strong connection between culture and leadership, gaining a better understanding of current and preferred culture will provide valuable insights into the context and challenges of leading change in the organisation, and provide direction for how the culture can evolve.

Current Organisational Culture

Figure 5.9 below provides a graphical overview of each organisation's (IOT) current culture score for each culture quadrant.

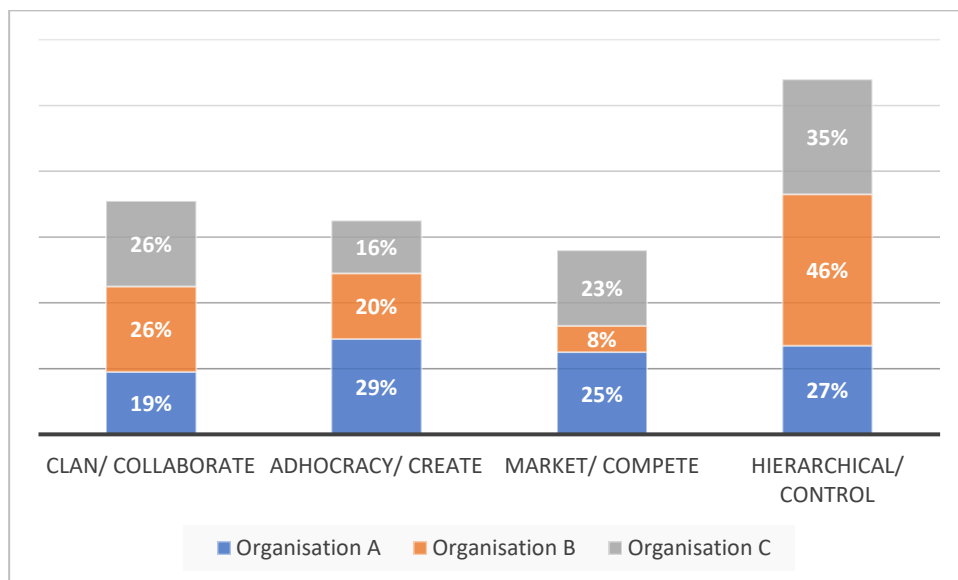


Figure 5.9: Current organisational culture scores

Overall, we notice that the aggregate hierarchical culture has the highest score, while the market culture has the lowest. Organisation A has a more even spread of scores across the

four culture quadrants than the other organisations and has the highest adhocracy score. Organisation B is less balanced with hierarchy being the dominant culture and market being the lowest. Finally, organisation C exhibits a more dominant hierarchical culture with adhocracy getting the lowest score. Each organisational culture will now be examined using the OCAI data as well as findings from the other stages.

Organisation A scored clan as its lowest of the four quadrants at 19%, Kate suggests that the *'whole collaboration, doing things together; I think we have to look at.'* Glenda agrees and adds that *'I think we have to think if we're going to be a TU, we have to increase the collaboration.'* In relation to adhocracy, participants gave an average score of 29%, which is their highest. Note this organisation would be well known nationally for their innovation in online learning which may explain this score. In addition, this high adhocracy score supports the previous section which suggested that organisation A was a key player in leading the creation of the TU. Regarding the market quadrant, the average score was 25%. In relation to the hierarchy quadrant, organisation A scored 27%. Fred believes that the public sector is much more hierarchical and structured than maybe in the private sector. Also, survey respondent #219 highlighted the challenges associated with too much control/hierarchy and added that *'I think that where you have leaders who are not in positions of power, their ability to influence is hampered by systems and red tape. While systems are necessary for many reasons, some simply make it too difficult to exact any real change.'*

Organisation B scored clan 26%, which was second overall within this organisation. Grainne was positive about collaboration and believes that *'within departments and within management, there's a lot of collaboration without the hierarchy.'* She also adds that they have a very good relationship with the local (union) branches and resolve issues quite quickly and informally. From an adhocracy perspective, organisation B gave a score of 20% which is third highest. Market had a score of only 8%. However, Grainne highlighted some of the positive competition they have relating to *'cross border initiatives and all the external engagement and funding for research projects.'* Organisation B gave a score of 46% to hierarchy, the highest overall by far. Grainne acknowledged the controlling structures of the public sector and added that *'we are probably slower than what we would want to be in terms of keeping pace with the external environment.'* This finding also supports the

previous section which suggested that organisation B was the slow to achieve its TU metrics and that the TU merger was less organically driven.

Organisation C gave clan 26%, which was second overall. Harry states that *'we would pride ourselves on being collaborative,'* while Nina adds that *'there's a lot of what goes on in the clan/collaborate culture that I personally would see as the head of school.'* This supports the previous section which indicated that organisation C was collaborating from an early stage on the TU formation. Organisation C had a weak score for adhocracy at 16%. Although Harry thinks that his organisation is good at creating new programmes, he said they are not good at *'cutting the deadwood.'* Reacting to having a score of 23% for compete, Nina says that *'education has become a business.'* While organisation C had a score of 35% for hierarchy, Gary believed that it was a fair reflection of the organisational culture from an IT governance and academic perspective. Frank highlighted that hierarchy culture is *'driven by fundamentally the Public Accounts Committee and we're going to see more and more of that as a public institution.'*

Overall, findings relating to the current culture highlights marked differences between the organisations as well as the hierarchical nature of the HEI sector, which had the highest accumulated score of 108%, and could be reducing the agility of HEIs to keep pace with their external environment. Clan and adhocracy were reasonably scored at 71% and 65% respectively. Market had the lowest overall score of 56%, which resonates with government supported public organisations, while some competition for student recruitment and research funding exists. These findings provide interesting insights into the three organisations and their culture.

Preferred Culture

Organisation A participants believed that all four culture quadrants were important for the emerging TU. Regarding clan culture, Joan added that, *'I don't feel that there has been ever a cohesive clan culture.'* Glenda also warned that they will be trying to compete and need to maintain some control/hierarchy to facilitate management as well as creativity. Kelly recommended a preferred culture of 25% in each quadrant as there are strong attributes in each of them. In organisation B, Breda hopes that culture would be better balanced by

strengthening clan and adhocracy culture, and Gavin agreed with this approach. However, Martin points out that if control/ hierarchy is lowered, you need to have good leadership distributed across the organisation. He also points out that *'you need to have alignment; you create alignment in the leadership aspect and the mission aspect and the communications aspect.... empowerment is really, really important.'* Organisation C participants believed that compete/market should be strengthened in order to do things faster and compete for funding (Nina, Gary). However, Harry warned that other recently established TUs have slower decision making due to the established structures. Gary recommended a balance between the four quadrants with less disparity.

The president who concurred with these findings and highlighted possible synergy between the collaborate and create quadrants, added *'I think if you've got a good clan/collaborative culture, you will automatically see a huge amount of innovation and doing new things so there is a kind of a dependency there.'* While the president highlighted the major sources of hierarchy that *'are external forces on us ... and this comes from the departments, the HEA, the Public Accounts Committee,'* she considered the preferred culture and suggested *'having a more of a balance between the four areas where the clan culture should be 30%, the controlling has to be 30% and then maybe two 20s for market and at adhocracy.'* In her role as the president, she has first-hand experience of external controls from government which may explain the higher hierarchy score.

Overall, findings on the preferred culture across the three organisations suggest that a better balance between the four quadrants is desirable for the emerging TU. A clan culture is seen as growing in importance as it facilitates cooperation, trust and relationships across the merged organisations and could possibly lead to improving creativity/ adhocracy. A certain element of market culture will continue as the TU faces competition with other TUs and traditional universities, both nationally and internationally. While hierarchy is seen as a barrier to responding quickly to opportunities due to red tape and delays, findings suggest that there may be scope to carefully manage this culture and provide sufficient alignment. Having analysed the competing values of adhocracy, hierarchy, clan and market, important insights have been gained that are relevant to change and leadership.

Conclusion

This subquestion focuses on the drivers, contextual and cultural factors for change. The drivers of change identified from this study include the Covid-19 pandemic, equality and diversity, government policy and funding, internationalisation, sustainability and technology. Internal contextual factors relevant for change were the tension identified between academic and support staff, the TU formation, and associated pressures to grow research as well as need for rationalisation and efficiency.

Unsurprisingly, participants indicated some differences between current organisational cultures in the three organisations. Overall, findings associated with the current culture highlighted the dominant hierarchical nature of the emerging TU and a weak market culture. From a preferred culture perspective, participants would like to strengthen the clan culture and support the emerging TU and its staff to collaborate and innovate across the merged organisations. A certain amount of market culture is likely to be required in the future due to the presence of competition. Although hierarchical culture is seen as a barrier to responding quickly to opportunities, and relates to the regulated environment, some is needed to maintain order and direction.

5.5 Staff perceptions about change and leadership

This section will address the second subquestion ‘what are staff perceptions about change and leadership.’ The topics of change and leadership are central to this study and were discussed during focus groups, interview, and survey. In this section, findings from the survey will be presented, complimented by qualitative data from other stages, to capture staff perceptions concerning change and leadership, followed by a conclusion.

Change

To gain insights on people’s perceptions of change, questions were utilised from recent UK research on leading change in the UK (Devecchi et al. 2018). A question on Covid-19 was also added, given that the survey was carried out during the pandemic. Figure 5.10 below presents survey results, and respondents were asked to ‘Please state how strongly you agree or disagree with the following statements on how change is impacting on you.’ The percent of respondents who agreed and strongly agreed were added and displayed for each of the 11 statements.

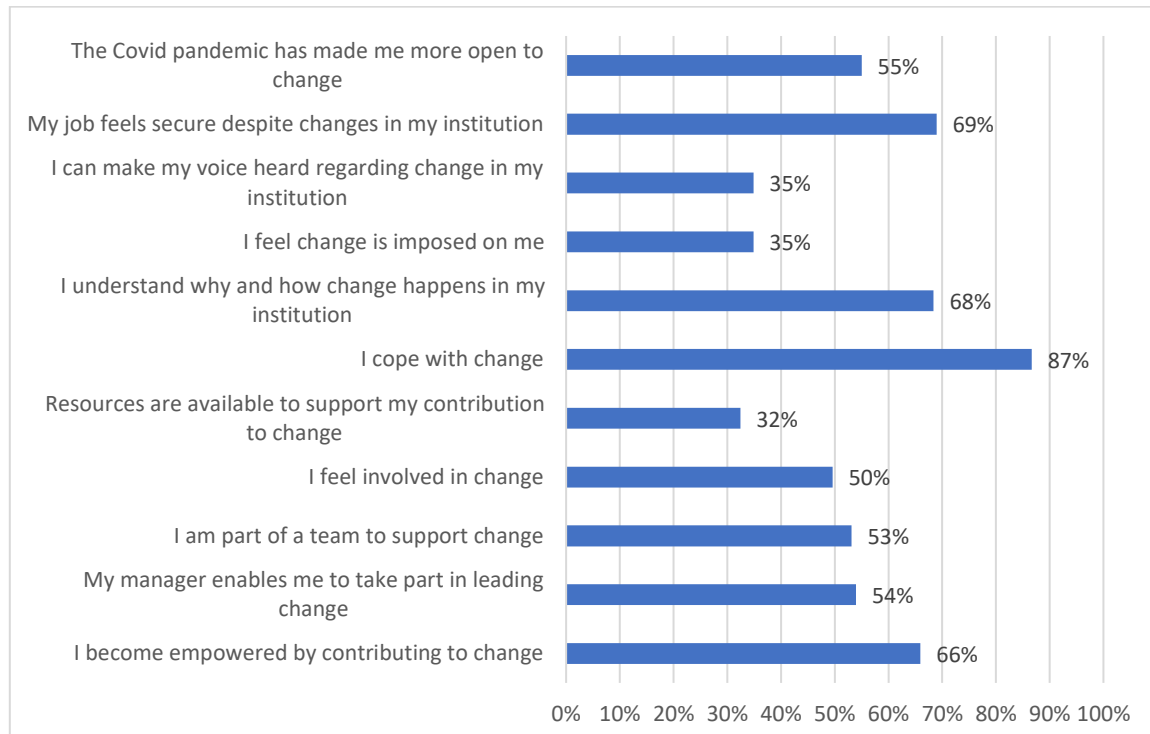


Figure 5.10: Perceptions about change (agree/ strongly agree)

Overall, staff believe that they are coping well with change, understand why it's happening, feel secure and become empowered by contribution to change. However, the minority feel that their voice is heard, and resources are available. More detailed analysis will now be presented.

The Covid pandemic has made participants more open to change with 55% agreeing or strongly agreeing with this statement. This may relate to the strong response of 87% of participants, who say they are coping with change, and Covid may have recalibrated people's understanding of change and made them more open to it. The strong coping response is supported by some focus group participants who suggest that people are much more change competent and capable and have a good attitude towards change. However, Grainne believes that *'there is definitely a number of staff that will find it very difficult to cope with any change.'* In addition, Nina suggests that *'staff and managers are frazzled, and I think it has been a very difficult year...because you kept changing.'* In this context, it appears that although significant change has occurred due to Covid and TU transition, people's attitude is still positive with regards to change, and they feel like they are coping. This finding is particularly surprising given the only 32% of participants believe that resources are available to support their contribution to change and indicates their strong resilience. Sean points out that there is not enough capacity to delegate, while Fed suggested that time needs to be created for change. However, the president provided some additional context and added that *'being master of our own destiny has not been possible for us as a sector and that has an impact then on our ability to plan for change and deliver on change in a reasonable manner.'*

Only 35% of participants felt that their voice could be heard regarding change, which could be related to the resource issues previously outlined. However, only 35% of participants felt that change was being imposed on them, which is surprising given the number external change drivers previously discussed in section 5.4. In addition, respondent #365 suggests that *'staff are tired and a little demotivated, so mature and respectful change management is essential.'* 68% of respondents say that they understand why and how change is happening and may indicate that staff engagement and support are present. This is evident

in the data, as most respondents consider themselves part of a team to support change (54%) and similarly 54% believe their manager enables them to take part in change.

Finally, 66% of participants feel empowered by contributing to change, which would indicate their desire to be involved. Respondent #70 suggested that good leaders empower all staff equally, but one focus group participant (Martin) believes sufficient leadership talent has not been created to engage a highly empowered culture. In relation to the overall findings about change, although staff appear to be coping well with change, feel part of a team, know why and how change is happening and become empowered by being involved in change, concerns emerged about the lack of resources to support change, which may be related to difficulties in making people's voices heard. The additional workload of the TU merging process may also be compounding these issues. The president gave her understanding of change leadership and said *'the whole aspect of leadership... it's about sense making. Creating some kind of direction and then engaging people in that direction and then mobilizing our achievements... actions then. But that always requires change and it has really struck me in the last period of time that the people who are most comfortable with change are the people that will thrive in our world.'* The quote suggests a distributed leadership approach is important to the president for supporting change.

To assess if gender has any influence over the change perceptions of respondents, the mean, median and standard deviation of respondents has been calculated by gender for each question as outlined in Table 5.7 below. Data in this table is based on a score of 1 for strongly agree, while 5 is strongly disagree. As we are interested in the differences between the male and female cohorts, the difference or delta has been calculated to identify any variation worth noting. For the mean column, the colour pink denotes a negative value which indicates that males agree more in this instance. Pink indicated in the standard deviation column suggests that females have a lower standard deviation than males.

When interpreting this data, it appears that females agree more than males that they become empowered by contributing to change, are part of a team to support change, feel involved in change, cope better, understand why and how change happens and that covid has made them more open to change. However, the males agree more than females that

their manager enables them to take part in leading change, resources are available to support their contribution to change, that they feel change is imposed on them, they can make their voice heard and that their job feels secure. Although there is some conflicting information, it appears that females may be coping better and that covid has made them more open to change than males. While males feel more secure and feel like they can make their voice heard more than females, this may indicate some gender bias being present or differences in perceptions about reality.

Table 5.7: Influence of gender on change perceptions

Sub Question	Male			Female			Delta (Male- Female)		
	Male Mean/Average	Male Median	Male Standard Dev	Female Mean/Average	Female Median	Female Standard Dev	Mean/Average	Median	Standard Dev
I become empowered by contributing to change	2.47	2.00	1.17	2.15	2.00	0.97	0.31	0.00	0.19
My manager enables me to take part in leading change	2.53	2.00	1.24	2.67	2.00	1.19	-0.13	0.00	0.05
I am part of a team to support change	2.63	2.00	1.24	2.60	2.00	1.13	0.04	0.00	0.11
I feel involved in change	2.81	3.00	1.32	2.74	2.50	1.17	0.07	0.50	0.15
Resources are available to support my contribution to change	3.04	3.00	1.17	3.16	3.00	1.12	-0.11	0.00	0.05
I cope with change	1.86	2.00	0.84	1.75	2.00	0.65	0.11	0.00	0.19
I understand why and how change happens in my institution	2.28	2.00	1.14	2.18	2.00	1.01	0.10	0.00	0.13
I feel change is imposed on me	2.84	3.00	1.19	3.13	3.00	1.08	-0.29	0.00	0.11
I can make my voice heard regarding change in my institution	2.97	3.00	1.23	3.01	3.00	1.01	-0.04	0.00	0.22
My job feels secure despite changes in my institution	2.20	2.00	1.13	2.34	2.00	1.14	-0.14	0.00	-0.01
The Covid pandemic has made me more open to change	2.59	3.00	1.07	2.25	2.00	0.90	0.34	1.00	0.17

Some additional cross tabulation was also done in relation to the influence of the role of respondents. When cross tabulating survey results between support and academic staff, support staff agreed the strongest in relation to their manager enabling them to take part in change, being part of a team to support change, feeling involved in change and having resources to support their contribution to change. They also agree more than academics that they can make their voice heard regarding change and that the Covid pandemic has made them more open to change. This suggests that there is marked differences between

academic and support staff, where support staff feel more used to working in teams and feel supported than academic staff. Giving insights into the complex environment, this data also indicates the presence of multiple cultures within the organisation.

Leadership

Drawing again from the study by Devecchi et al. (2018), survey questions were used to gain insights into respondent’s perceptions about leadership. Leadership related quantitative data are presented in Figure 5.11 below, where respondents were asked ‘to what extent do you agree or disagree with the following statements on leadership?’ Qualitative data from other stages have been used to compliment these data. Overall, the respondents agreed the most that leadership makes change happen, can be learned, can be found at all levels, and develops in a context. A minority agreed that everyone can be a leader and that it is about authority, and that leaders are born that way. Further analysis will now be presented.

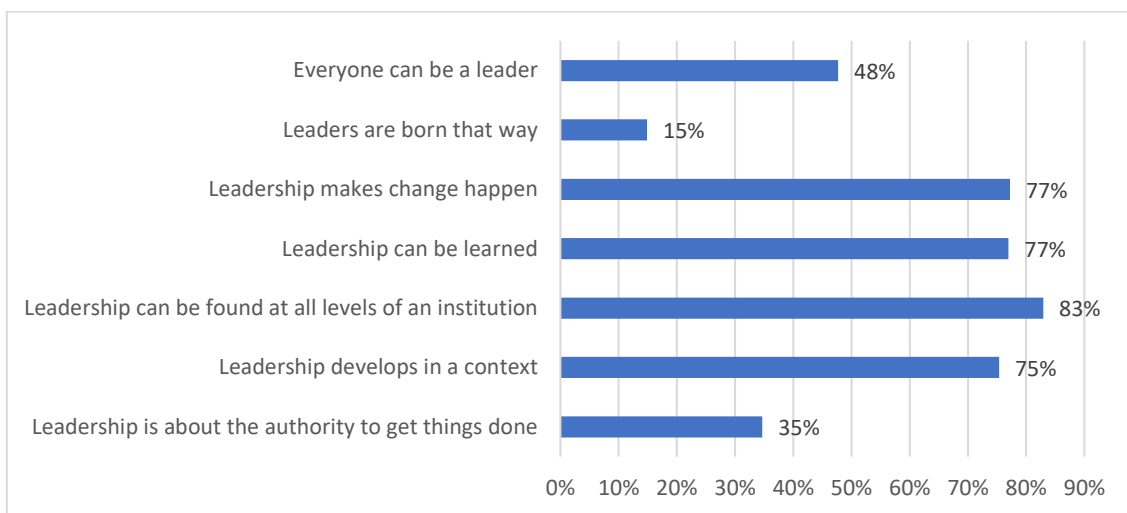


Figure 5.11: Leadership perceptions (agree/ strongly agree)

83% of respondents believed that that leadership can be found at all levels, which could indicate that leadership is distributed to some extent. Supporting distributed leadership, respondent #186 said that ‘*collaboration and consultation is required for leadership, not dictatorship; willing to support change from the bottom up as well as top down.*’ This is further supported with only 35% believing the leadership is about authority to get things done. However, respondent #90 states that ‘*leaders must have a moral authority;*

identifying and resolving problems not merely telling the followers all is ok.' The president said that leadership is *'about sense making; creating some kind of direction and then engaging people in that direction.'* This resonates with the control and collaborate culture previously discussed in section 5.4.

Respondents also believe that leadership is something that can be learned (77%) and develops in a context (75%). Respondent #85 concurs and said that *'change leaders should be aware of significant change in higher education internationally. They should be well read.'* This suggests that continuous professional development (CPD) is an important element for leadership and its development. This could be further supported by only 15% of respondents believing that leaders are born that way. However, a minority participants (48%) believe that everyone can be a leader, which indicates that certain traits or characteristics are needed to be a leader.

The instrumental nature of leadership for implementing change is highlighted where 77% of respondents believe that leadership makes change happen. This is supported by Fred who said that when going through changes, *'leaders play a pivotal role, we need to be cognisant of what the impact is for them because we need to get them comfortable with the change because we're typically going to rely on them and other influential people to drive the change.'* This indicates that both formal and influential leaders distributed across the organisation have a key role in leading change.

When assessing the influence of gender on leadership perceptions of respondents, Table 5.8 outlines the mean, median and standard deviation of males and females. The difference in mean, median and standard deviation is also included. While males feel more strongly than females that leadership is about authority to get things done, and their leadership develops in a context, this indicates that males may be more authoritative and feel they have more scope for developing their leadership skills than females. While males feel more strongly that leaders are born that way, females believe more that everyone can be a leader. This could indicate that females have a more open attitude to leadership than males.

Table 5.8: Influence of gender on leadership perceptions

Sub Question	Male			Female			Delta (Male- Female)		
	Male Mean/Average	Male Median	Male Standard Dev	Female Mean/Average	Female Median	Female Standard Dev	Mean/Average	Median	Standard Dev
Leadership is about the authority to get things done	3.09	3.00	1.19	3.21	4.00	1.09	-0.12	-1.00	0.10
Leadership develops in a context	2.11	2.00	0.75	2.18	2.00	0.73	-0.07	0.00	0.01
Leadership can be found at all levels of an institution	2.04	2.00	1.04	1.85	2.00	0.98	0.18	0.00	0.06
Leadership can be learned	2.16	2.00	0.95	2.05	2.00	0.92	0.10	0.00	0.03
Leadership makes change happen	2.01	2.00	0.89	1.98	2.00	0.88	0.03	0.00	0.01
Leaders are born that way	3.48	4.00	0.95	3.56	4.00	1.02	-0.08	0.00	-0.07
Everyone can be a leader	2.93	3.00	1.20	2.77	2.00	1.29	0.16	1.00	-0.09

While little differences existed when cross-tabulating role and leadership perceptions, support staff agree the strongest that leadership makes change happen and that everyone can be a leader. This resonates with the contextual finding relating to the tension between academic and support staff who have different ways of working and different cultures.

When we cross tabulate by academic faculty, we discover that the creative/ culture academic staff agree the strongest in relation to leadership being found at all levels of the institution. In addition, the Business/ Social science academic staff believe the strongest that leadership can be learned, and that leadership makes change happen. Finally, Eng/Technology academic staff agreed that leadership is about the authority to get things done and that it develops in context. This supports the idea that there are many different cultures and subcultures across higher education organisations from support and academic staff as well as within academic staff.

Conclusion

This section dealt with the subquestion in relation to staff perceptions of change and leadership. While staff indicated that they are coping well with change (87%) in a secure environment (69%), they feel empowered by contributing to change (66%). Most respondents feel part of a team (53%) and understand why and how change happens (68%) which resonates with a collaborative culture from the previous section. As a result of staff

workload issues and a lack of resources associated with the merging process, this could be contributing to a minority of staff believing they can make their voice heard regarding change (35%).

Participants indicated that leadership can be found at all levels of the organisation (83%) and is not about authority, which suggests the presence of a more distributed leadership approach. Although staff identified previously that hierarchy is a dominant culture, the presence of distributed leadership may suggest a collaborative culture is also present. While it was unclear if everyone can be a leader, participants believe that it can be learned (77%) and developed in a context (75%) and makes change happen (77%). Cross tabulation analysis indicated diverse views across roles and academic faculties which suggests a further layer of complexity in terms of local cultures. We will now progress to the next subquestion, which identifies the challenges for change management and leadership.

5.6 Challenges for change management and leadership

The third subquestion is addressed in this section; 'what are the key challenges for change management and leadership.' Having reviewed change drivers, cultural and contextual factors as well as staff perceptions about change and leadership, a good understanding of the overall context has been created to investigate key challenges for change management and leadership within the emerging TU. Using qualitative data from the other stages, challenges are categorised under the following key themes associated with change leadership: strategy, culture, relationships, capability, and tactics. Although these themes were developed to help categorise change leadership characteristics from literature, they have also been found to be relevant for current challenges facing the emerging TU. We will now review the challenges identified within these themes, drawing connections to the change leadership characteristics previously discussed in the literature review, section 3.3. Note evidence of tactical challenges were less than the other themes so this will be dealt with along with strategy as they are related.

Strategy and tactical challenges

Strategic related challenges were identified in this study, such as creating a vision and strategic plan, communication, collaboration, and understanding that change can be complex. Given the early stages of TU formation, participants indicated a lack of clarity with regards to an organisational vision and culture. *'Without a combined view of what XXX will be and people starting from different places, it can be difficult to get people on board for the new destination due to a lack of culture and identity and it's very difficult when you don't have an overall organisational strategic plan'* (Grainne). As a result of a lack of vision, Glenda highlights that it is difficult for staff to focus their efforts. Other concerns relate to the growing importance of research, but this is being hampered by a lack of a research culture, and a plan from senior management to generate competitive research income (respondent #184). This data suggests that the absence of a clear vision and a strategic plan is causing a lack of direction, making it challenging to inspire staff.

Kelly believes that communication is a weakness and *'sometimes things get changed but the actual change isn't communicated with people using it on the ground.'* The president also highlighted the importance of communication and added that *'we just don't communicate enough..we can never overestimate the importance of communication, the same message over and over again..its the key to everything really.'* In relation to collaboration, many staff believe that change has been managed in a positive, trustworthy way (respondent #46) and there was a lot of consultation with management and unions (Grainne; Gary). However, respondent #182 suggests *'from experience, changes are made without the consultation of staff that have to implement and process these changes which is very disheartening.'* This data has revealed mixed opinions and challenges around communication and collaboration and suggests that the impact and sustainability of change is not considered. *'Dealing with complexity is needed to understand the broader implications of change and identify potential synergies across silos'* according to Gary. As the TU merger will create an even more large and complex organisation, it is likely to be more challenging to determine implications and synergies across organisational boundaries. This increased complexity, in the context of limited resources and significant change, may make communication and collaboration even a greater challenge.

Related to strategy, tactics are important for change management and leadership in relation to dealing with resistance and barriers to change initiatives, implementing change incrementally, and showing evidence of success. Regarding resistance to change, Kelly suggests that it may depend on staff mindset. While Frank believes that a fundamental change resister is that *'people are not willing to go to this new desired place and leave behind that which we've been familiar with,'* the president suggested that sometimes a *'resistance to change is dressed up as a rational position around the inability to change or the inability to grow.'* This data suggests that resistance to change is a challenge being faced at present that must be dealt with tactically. In addition to dealing with resistance to change, one participant suggested that you must build momentum to drive through changes (Gary). Harry believes that you need to show evidence of change and have quick wins to prevent problems. In terms of incremental change or stability, Sean suggests that there should be an end point for change, to allow some kind of stability, and Fred concurred suggesting that there needs to be milestones to recognise success and wins along the way. This indicates that implementing change incrementally can be a challenge as it is important to build momentum and show progress. This may also relate with a lack of project and change management staff and structures identified in the previous section dealing with capability.

Culture challenges

Creating a culture of democracy, persistence, and trust, dealing with conflict, and encouraging creativity are challenges in the new TU. Fred highlights *'the influence that the teacher's union has in the sector is really, really impactful...there was strong control on the speed of change and the level and pace of change.'* Sean believes that because of the strong teacher's union, some staff are always thinking of the negative consequences of change rather than the potential positive aspects. Glenda referenced the difficulties and potential conflict associated with the union interpretation of job descriptions and added that *'I don't think the PMSS Unions are as challenging. I think the academic union is difficult when you're trying to lead and manage change.'* Findings demonstrate that dealing with the teacher's

union (TUI) is a significant challenge for leading change and that their interpretation of job descriptions can cause conflict. This issue may be associated with the resource constraints to support change, previously discussed in section 5.5. While staff may feel overworked, the union could be attempting to help control their workload. Therefore, to keep all stakeholders on board, democracy and trust and being able to effectively deal with conflict are all important ingredients to facilitate a change culture.

Challenges associated with creativity and innovation have also been identified. As the TU evolves, it will need to create new structures and a different way of working. However, a survey respondent (#85) suggested that *'leadership concentrates on replicating existing processes rather than envisioning new ways of doing things,'* indicating a lack of innovation. The contextual factors associated with delivering efficiency from the TU process was discussed in section 5.4 and this will require creative thinking. In addition, it was suggested that a hierarchical culture can lead to a lack of agility and these issues may indicate that there is a lack of creativity and innovation to allow fresh thinking, and not be constrained by how things were done in the past. Fostering a creative culture is a challenge and is needed to create new ways of working and improve agility.

From section 5.4, we see the strong presence of hierarchical culture, which indicates a more top-down approach to change, while at the same time a both adhocracy and clan culture exist, which suggests a bottom-up approach to change. The president provided an insight into this tension and suggested that from an academic faculty structure perspective, there is middle tier changes *'probably coming a bit from the top down, but they will enable more bottom-up change.'* Overall, many cultural challenges have been identified. While many challenges exist in relation to creating a culture of democracy, persistence, and trust, dealing with conflict, and encouraging creativity, there is also need for a better balance between the four competing tensions of hierarchy, adhocracy, market, and clan cultures to support both bottom up and top-down change initiatives. This more balanced culture will require a more distributed leadership approach where staff are more empowered.

Relationship challenges

Building credible and diverse teams and involving staff from all levels of the organisation were found to be key challenges, as well as developing and maintaining relationships. Diversity concerns about the executive representation was raised by Gary who pointed out that *'only one non-academic person was within the executive team, so there isn't a voice or an equal voice from professional services side ...Everything is driven towards academia, which means there's a massive black hole on bias, there an awful lot missed.'* Related to diversity, we also note the various challenges associated with gender equality, especially at leadership levels previously discussed in section 5.4 (change drivers).

Cultivating relationships between staff has been identified as another key challenge. This also links to section 5.4, where participants long for a more collaborative culture to develop relationships with their current and new colleagues. In fact, Joan added that, *'I don't feel that there has been ever a cohesive clan culture in this campus.....it's an opportunity to hit the reset button.'* While tensions between academic and support staff were previously discussed, where academics work in isolation, and support staff are more team centric leading to a cultural divide and a lack of cohesion, these tensions could be resolved by creating more diverse teams. As a result of more flexible working arrangements attributed the recent pandemic, this could also be leading to further challenges in staff relations, with less face-to-face casual or formal meetings. Therefore, the challenge of developing relationships and diverse teams is important, as it could help create a collaborative culture and reduce tensions between staff, especially when significant change is being implemented.

To help grow relationships, rewarding and recognising staff for their contributions to change was identified as a challenge. This issue was raised by respondent #67 who believes that *'rewarding successes seems very trivial but is paramount from a staff morale and job satisfaction perspective.'* By increasing staff recognition and rewards, leaders can strengthen relationships and promote impactful behaviour that may provide examples for others to follow suit.

Capability challenges

Many challenges have been identified relating to the development of staff capabilities, such as having adequate resources to deal with the increased workload associated with TU transition, training, development and understanding change management processes. Having the right mix of staff was also highlighted so that key roles such as the head of department is more supported with administration and manageable workloads.

Highlighting resource constraints, Glenda points out that *'we have done a huge amount of expansion but haven't put in the infrastructure to support the (student) numbers and that this is preventing doing things smarter due to insufficient people on the ground to have time to think and thus are prevented by work.'* Martin agrees and suggests that there is no issue getting funds for systems and technologies, but a dim view is taken on funding requests for people, and this is a big issue for the public sector. Grainne also concurs and points out that most staff are double/ triple jobbing and that backfilling and training takes time. The president outlined that the lack of resources and uncertainty in budgets is typical for the HE sector. She commented that *'being a master of our own destiny has not been possible for us as a sector and that has an impact then on our ability to plan for change and deliver on change in a reasonable manner.'* This indicates the significant influence of external stakeholders such as the HEA who control funding through performance frameworks and other means (as discussed in Chapter two) and supports the TURN report (2019). Providing adequate resources is a key challenge identified in this study and is giving rise to significant difficulties for staff who are trying to cope with their workloads, while dealing with staff changes, new colleagues and other changes associated with TU integration.

A lack of capability development through sharing knowledge is also of concern to some participants because of a perceived restricted remit of their role, and a lack of staff contingency planning. While focus groups were limited to management staff, Glenda suggests that some staff are *'quite narrow in their thinking about what is their remit...they are quite siloed.'* She also suggests more work is needed to share skillsets, as there is a total dependence on a few key staff with limits overall capability, which is a risk to the organisation.

A shortage of specialised training and skills in project and change management as well as supporting structures and processes have been identified as potential challenges for effective change leadership. For example, respondent #184 suggests that *'only some managers really understand, in a holistic sense, what is really required to drive change or even a particular initiative... basically, it's easier to set objectives than it is to fully think it through and build a comprehensive plan to support the change.'* Although some participants believe that a good structure was put in place for project management of the TU, which has resulted in effective planning (Kate), general concerns were raised in relation to leaders who have little understanding of management and change management (respondent #147). Another points out that there is no structured change management process in the institute (respondent #209) and there are no lessons learned sessions (Fred). To address these capability deficits, Fred suggests investing in project management training and associated processes. In relation to the need to create time for change, Fred believes that *'through investing in dedicated change management staff, maybe this time can be created.'* Because of TU integration and associated changes, these project and change management skills and structures will become even more important, and serious consideration should be given to providing dedicated resources to support the organisation.

Other challenges exist in relation to the creation of new systems and procedures for the TU. Grainne warns that we need to get certain policies and procedures documented, reviewed, and agreed but highlighted it is such a long process because every single policy must go through all four unions. This additional workload for TU integration could further compound the lack of resources previously outlined.

Other capability concerns were identified such as a lack of support for heads of departments. Respondent #314 who is a senior management academic, suggested that the ability of heads of departments (HODs) to implement change is often limited because of a lack of leadership higher up the organisation, while the HOD has a lot of responsibility but not enough power. In addition, respondent #90 who is a lecturer, believes that *'heads of department are expected to implement every change, while concurrently managing an ever increasing operational and bureaucratic workload, along with all the staff and student issues, which are not inconsiderable. Meanwhile, an increasing number of special project*

officers who are salaried at the same level as a HOD produce reports on implementing change in QA, Sustainability, EDI, etc; however crucially they have no responsibility for their successful implementation- this falls back to the HODs. Instead of special project officers, more administrative support and actual HODs are needed to successfully implement change.' These findings are important capability challenges and support the OECD (2023a) recommendations discussed in Chapter three, which relate to the broad remit of HODs who may require additional supports to be effective in their roles. As a head of department for over 12 years, these findings are no surprise as the demands and complexity of the role is ever increasing, making it more challenging to lead change.

Conclusion

Having examined the many challenges currently facing participants within the emerging TU, it was discovered that these challenges directly relate to the five change leadership themes of strategy, culture, relationships, capability, and tactics. In addition, almost all the change leadership characteristics developed in the literature review in section 3.3 were linked to various challenges. Within the theme of strategy and tactics, findings highlight key challenges associated with the lack of vision and a strategic plan for the new TU, which is resulting in a lack of direction and inspiration for staff. There is also mixed opinion on the effectiveness of communication and collaboration. Given the increasing complexity of the new TU, communication and collaboration will be even more important as new relationships are formed and silos overcome, but it may also become even more challenging to execute. From a tactical perspective, dealing with resistance and barriers to change is a challenge. Participants have also highlighted the importance of building momentum to drive through changes, having quick wins and having project milestones for successful change management. All these challenges require effective change leadership to be overcome. We will now proceed to the fourth subquestion associated with the importance and presence of change leadership characteristics.

To keep stakeholders like unions on board for change, a culture of democracy, trust and dealing with conflict was found to be important. Creativity will also be a challenge so that new efficient ways of doing things can be created, and a lack of agility from the existing

control culture overcome. Give the differences in culture across the TU and tensions between staff, creating diverse and cross functional teams is a challenge. While some progress on gender balance and international recruitment is occurring, it appears that further progress is needed to improve diversity and gender balance. Cultivating relationships between staff is also a challenge, especially in the context of the larger, more complex TU and more dispersed working arrangements. Although rewarding success seems like a trivial activity, it was identified as important and one that could help promote and align behaviour towards desired goals or changes.

Overall capability development of staff is a key challenge. With the additional workload associated with TU transformation, additional pressure has been created due to staff double jobbing. There is a lack of resources to deal with changes resulting in difficulties for staff to delegate. This is also contributing to a lack of contingency planning and sharing skillsets. In addition, project and change management training, processes, and dedicated resources to assist the TU through its transformational process are recommended. Other capability concerns relate to administration support for heads of department and the requirement for a new organisational structure to be fit for purpose, as well as the consultation and approval processes for associated policies and procedures.

5.7 Importance and presence of change leadership characteristics

Having investigated the various challenges associated with change management and leadership in the emerging TU, we have uncovered many issues and difficulties associated with the themes of strategy, culture, relationships, capability, and tactics. We will now build on these qualitative findings with quantitative findings, to address the fourth subquestion *'what is the importance and presence of change leadership characteristics.'* This subquestion will utilise quantitative data and will help identify what characteristics leaders need to have to lead change in the context of a complex, merging TU that has many change drivers. The presence of these characteristics will also be interesting to assess, as it could provide additional insights into the challenges faced by leaders who may not exhibit these characteristics.

Overview of change leadership characteristics

The 25 change leadership characteristics synthesised from literature (section 3.3) were integrated into the stage 3 staff survey. The survey stated that *'this section allows you to draw on your own experience within your institution before TU designation and highlight the importance of various characteristics of change leaders in your institute, from your perspective.'* After responding to this section, respondents were then asked to what extent they agreed or disagreed that the characteristics are present in change leaders at their institute. Table 5.9 below shows the five-point Likert scale used for both the importance and presence of the characteristics as well as the scale numerical score used for each response.

Table 5.9: Scale for characteristic importance and presence

Scale:	1	2	3	4	5
Importance	Not Important at all	Little Importance	Average Importance	Very Important	Absolutely Essential
Presence	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

Response data from the 25 survey questions were then categorised into five key themes of strategy, culture, relationships, capability development and tactics using Microsoft Excel. Table 5.10 below provides an overview of these five themes as well as the sub themes which were directly taken from the theme questions.

Table 5.10: Change leadership themes and sub themes

Strategy	Culture	Relationships	Capability	Tactics
Case and support for change.	Encourage creativity.	Build credible diverse team.	Knowledge of change theories	Implement credible change plan.
Impact and Sustainability.	Accept conflict.	Involve staff from all levels.	Provide Resources	Identify and remove barriers.
Understand complexity.	Trust, democracy, inclusion	Develop and maintain relations.	Sharing knowledge	Implement change incrementally.
Clear Vision	Integrity	Reward and recognise staff.	Training	Deal with Organisational resistance.
Inspire	courage, openness, persistence	Celebrate wins	Systems and Procedure	
Communication & consultation			Delegation	

Figure 5.12 below is a bar chart showing each theme mean and standard deviation for both the importance and presence of the characteristic themes. Each theme is ordered by importance. Respondents identified strategy as the most important characteristic theme, followed by culture, relationships, capability, and tactics. The mean importance of these themes ranges from 4.27 (tactics) to 4.46 (strategy), which is between the 'very important' and 'absolutely essential.' This indicates that the questions resonated with the respondents who believe that these characteristics are key to success for leading change in their organisation.

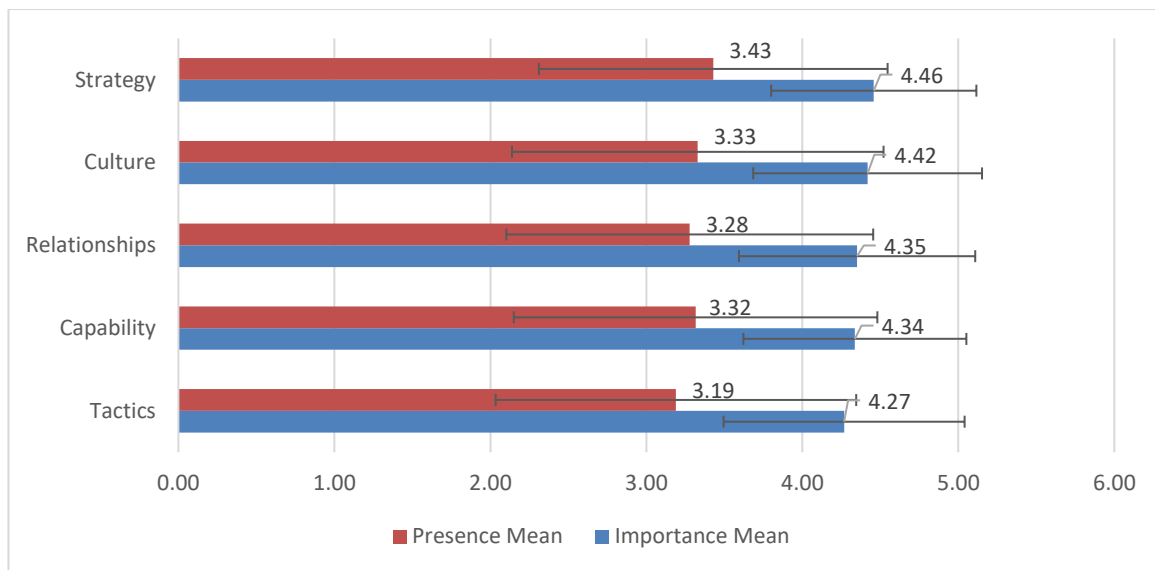


Figure 5.12: Change leadership characteristic themes

However, when we look at the presence of these characteristics, we get a different perspective. Participants gave a score of between 3.19 (tactics) to 3.43 (strategy) for the presence of these characteristics which is between 'undecided' and 'agree.' Overall, this finding suggests that staff are unclear about the presence of these characteristics being exhibited by change leaders. One respondent (#120) commented in the survey that *'XXX is relatively new into the TU and as such it is not easy to make a judgement on the characteristics that are present in the leadership team at this stage.'* In addition, respondents may have been thinking of their own line manager, department manager, or president so this could have caused variations in responses also. Overall, the presence of the characteristics is not obvious, which could suggest that respondents are not aware of leaders exhibiting them or that there are issues present, which are restricting leaders from demonstrating these characteristics. Alternatively, all leaders may not possess them or be able to apply them.

Regarding the standard deviation of these data, the importance is between 0.66 (strategy) and 0.77 (tactics), while the presence is between 1.12 (strategy) to 1.19 (culture). As the standard deviation is tighter for the importance of the characteristics, this suggests that respondents are more consistent about the importance but have a more mixed opinion on the presence of these characteristics. I think this can be explained by the variety of leaders

within an organisation that respondents may have in their minds while completing the survey. We will now proceed and examine the quantitative data of each theme individually to get a better understanding of the related questions and individual responses.

Analysis of change leadership themes

In this section, the questions posed to participants will be provided, grouped by theme, complete with the importance and presence scores from respondents. (Table 5.10 provides an overview of the characteristic themes and sub themes based on these questions). This will be presented in bar chart form, sorted in order of importance to respondents. The two most essential characteristics as well as the two least present characteristics will then be discussed briefly, to get a broad appreciation for each theme.

Strategy

From Figure 5.13 below, we see that effective communication and consultation and establishing a clear vision were the top two most important strategic related characteristics identified by respondents in this stage 3 quantitative data. However, communication and inspiring staff was seen as the two least present characteristics within this theme. These findings resonate with the strategic related challenges previously discussed in section 5.6.

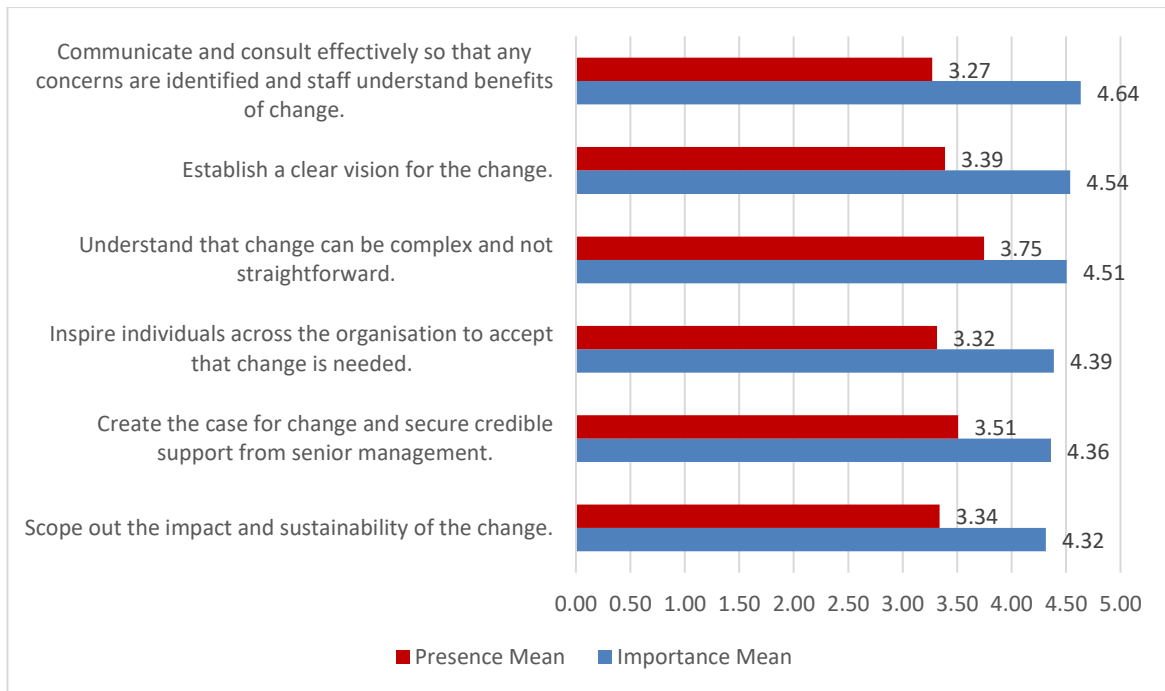


Figure 5.13: Strategy characteristics

Culture

Culture related characteristics are presented in Figure 5.14 below. Developing a culture of trust, democracy and inclusion was identified as the most important cultural characteristic as well as the one least present. The next most important was being committed to achieving the change through integrity and courage, while maintaining openness and persistence. The second least present characteristic related to creativity and innovation. These findings compliment the cultural challenges previously discussed in section 5.6. In addition, these findings resonate with the findings from section 5.4 relating to the current and preferred culture, where participants identified the importance of a collaborative culture in their emerging TU, and that this could support more creativity.

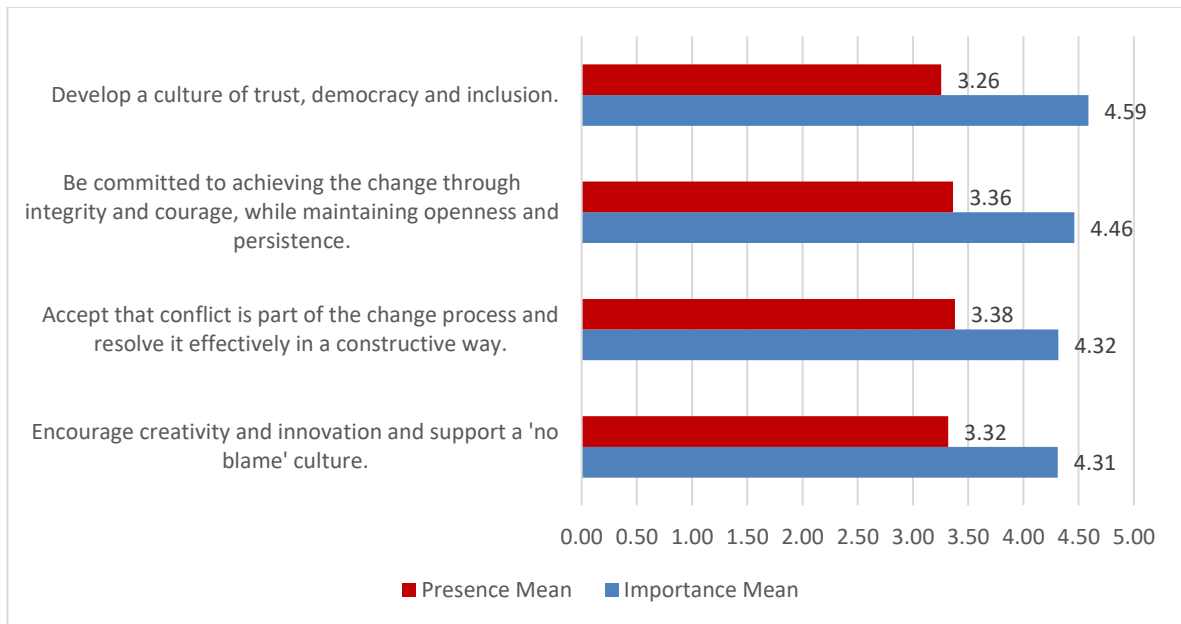


Figure 5.14: Culture characteristics

Relationships

In Figure 5.15 below, relationship related characteristics and associated responses are outlined. Developing and maintaining relationships with staff and other stakeholders and involving staff from all levels in the change process from early on were identified as the most important characteristics within this theme. Involving staff from all levels as well as regarding and recognising staff for their contributions to change were the least present characteristics. In section 5.6, relationship related challenges were discussed, which are supportive of these quantitative findings.

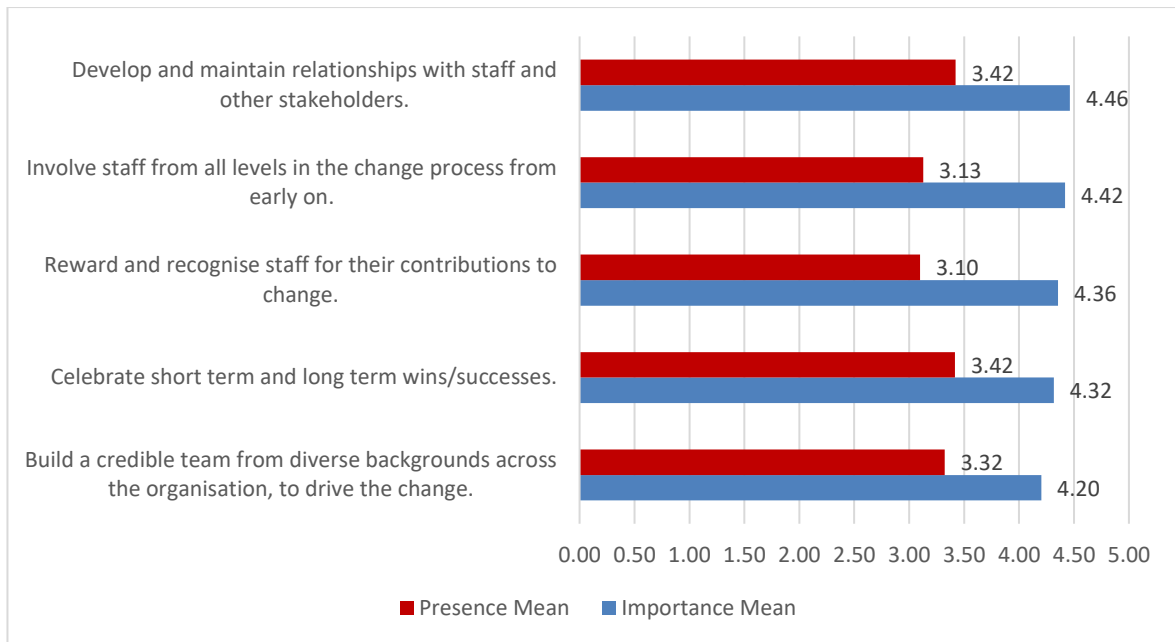


Figure 5.15: Relationship characteristics

Capability

Figure 5.16 below shows that ensuring staff are sufficiently trained to enable them to embrace change is the most important and least present characteristic within the capability theme. Providing adequate resources to facilitate and embed change is the second most important and least present characteristic. While capability related challenges have been previously discussed in section 5.6, these quantitative findings help provide additional insights relating to the development of staff capabilities for the emerging TU.

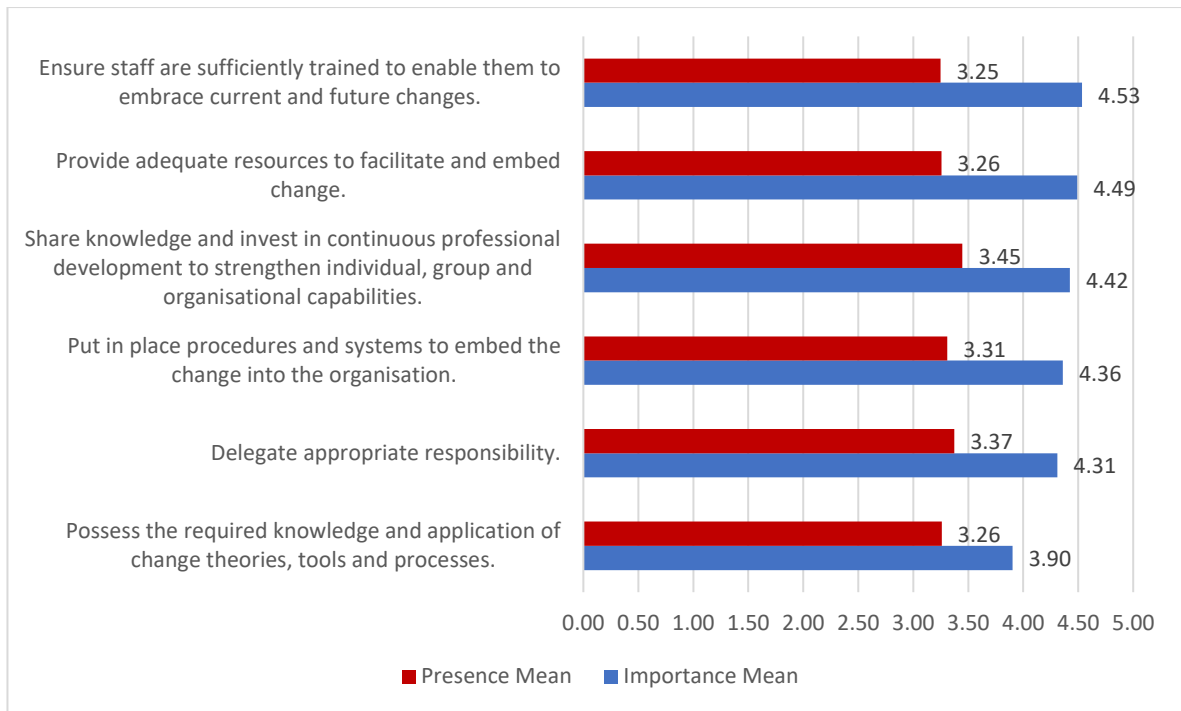


Figure 5.16: Capability characteristics

Tactics

Tactical related characteristics are presented in Figure 5.17 below. Developing and implementing a credible change plan and identifying and removing change barriers were identified by respondents as the most important. The least present characteristics were the ability to identify and remove barriers as well as dealing with organisational resistance to change. Challenges associated with deficits in project and change management, related processes, and lack of resources outlined in section 5.6 (capability challenges) resonate with these findings and reinforce the importance of addressing these challenges and improving the planning processes and approaches.

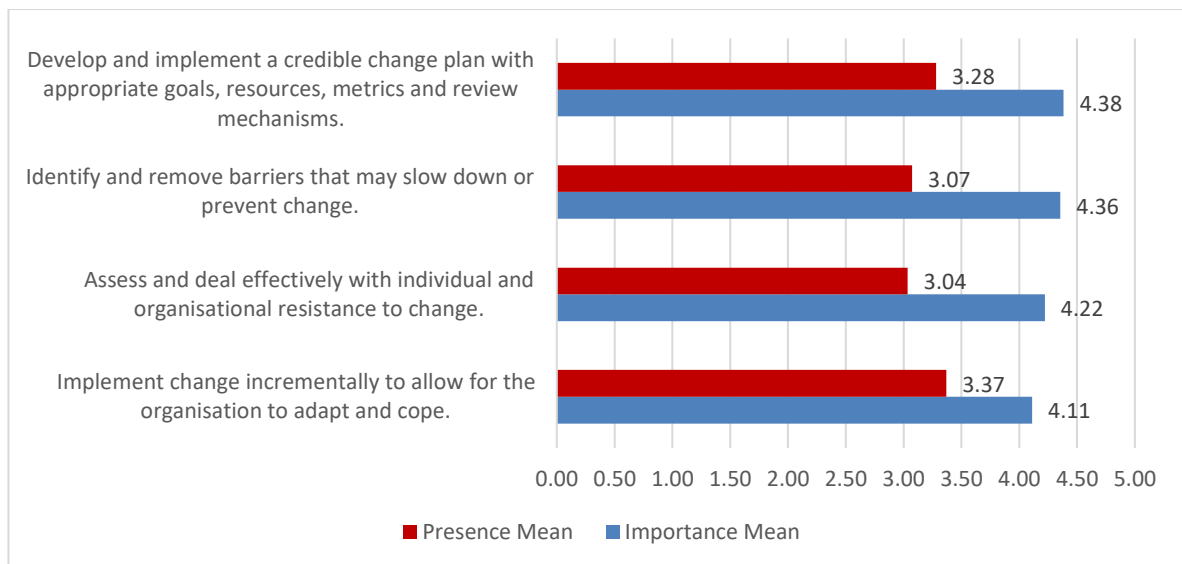


Figure 5.17: Tactic characteristics

Conclusion

In this section, we have addressed the subquestion, *‘what are the importance and presence of change leadership characteristics?’* Data from 371 respondents were compiled and analysed for 25 questions relating to characteristics. These characteristics have been categorised into themes, and findings have shown that the characteristics associated with strategy are the most important followed by culture, relationships, capability, and tactics. Overall, respondents believed consistently that the characteristics are in between ‘very important’ and ‘absolutely essential’ for change leaders to exhibit. However, findings for the presence of these characteristics were more varied and spread and participants were between ‘undecided’ and ‘agree’ for the presence of these characteristics within their organisation.

Having reviewed each of these themes, we identified the two most important as well as least present characteristics. The qualitative findings from subquestion 3 (section 5.6) compliment these quantitative findings. Therefore, a clearer understanding and explanation for the importance and presence of characteristics as well as current challenges, has been provided. Table 5.11 below shows the themes and sub themes ordered by importance, and the two least present characteristics are highlighted in italics.

Table 5.11: Change leadership characteristics

Strategy	Culture	Relationships	Capability	Tactics
<i>Communication & consultation.</i> Clear Vision. Understand complexity. <i>Inspire staff.</i> Case and support for change. Impact and Sustainability of change.	<i>Trust, democracy, inclusion.</i> Integrity courage, openness, persistence. Accept conflict. <i>Encourage creativity/innovation.</i>	Develop and maintain relations. <i>Involve staff from all levels.</i> <i>Reward and recognise staff.</i> Celebrate wins. Build credible diverse team.	Training. <i>Provide adequate Resources.</i> Sharing knowledge. Systems and Procedure. Delegation. <i>Knowledge of change theories.</i>	Develop, implement credible change plan. <i>Identify and remove barriers.</i> <i>Deal with Organisational resistance.</i> Implement change incrementally.

In the previous sections, we have assessed findings associated with change drivers, cultural and contextual factors for change, key challenges for change management and leadership and the importance and presence of change leadership characteristics. In the next section, we will reflect on and consolidate the findings from these four subquestions and address the main research question of ‘what do stakeholders consider valuable for change leadership in an emerging TU?’

5.8 Stakeholders experience and value of change leadership

To answer the main research question of this study '*how do stakeholders experience and value change leadership,*' all data and analysis presented in the previous sections dealing with the four subquestions will be reflected upon to synthesise and condense findings further. Through the four research stages, data have been gathered from all key internal stakeholders (all levels of academic and support staff) of the emerging TU to enable us progress and address this main research question under two headings. The first heading is titled '*Working within the context,*' which synthesises findings from the TU submission document and the first two subquestions relating to change drivers, context, and culture as well as staff perceptions on change and leadership. The next heading is '*dealing with challenges through change leadership,*' which synthesises findings from the last two subquestions. A conclusion will then be presented.

Working within the context

From this study, the importance of context, both internal and external to the organisation, becomes apparent to change leaders, as many challenges they face in relation to leading change come from the unique context that they are set within. While many changes arise from the contextual situation of the organisation, context is also an important factor that informs how changes should be implemented. The drivers of change discussed in section 5.4 are external to the organisation and include the Covid pandemic, equality and diversity, government policy and funding, internationalisation, sustainability, technology, and the TU merging process. These sources of change are important for change leaders to consider as the emerging TU evolves and develops. While leaders need to be vigilant about current and emerging change drivers in their external environment, different approaches to leading these changes may be required, which needs careful consideration. From an internal perspective, leaders need to be aware of the contextual factors identified in section 5.4 including tensions between academic and support staff, growing research as well as need for some rationalisation and efficiency. These factors may influence organisational culture and inform change leaders and how they deal with and share power with staff.

Change leaders need to work with their current organisational culture and help it evolve to successfully implement change. In relation to culture assessed in section 5.4, differences between the three organisations emerged, which would be expected, but a common hierarchical/ control culture was identified as a dominant culture, which could be typical of a public sector HEI within a neoliberal environment. Although hierarchy is supportive of the alignment of activities which will help the merging process, care will need to be taken to ensure a better balance is sought between the four quadrants of clan, hierarchy, market and adhocracy, and any initiative to help balance these would be valued by stakeholders. While collaboration/clan is seen as growing in importance to strengthen relationships and capability across the emerging TU, creativity/ adhocracy is also needed to develop new and innovative processes. Change leaders will have an opportunity to shape the future TU culture by adjusting its change leadership characteristics so that it can respond to current and future changes.

Change leaders can also have a better appreciation for their internal context and culture by being cognisant of how staff are responding to change and leadership so that leaders can adjust their tactics and actions. From this research, staff appear to be coping well with change and feel secure, but a lack of resources is a cause of concern that may be negatively impacting the ability for involvement in changes due to increased workload. Therefore, any changes that are accompanied by resources would be welcomed. While evidence of distributed leadership were found where staff are generally empowered, ongoing leadership development and training is needed for existing and future leaders, and addressing resource constraints would help create time for training.

Dealing with challenges through change leadership

Stakeholders have highlighted the essential nature of change leadership characteristics in this organisation but are unclear of their presence. By increasing their presence, stakeholders will feel more supported and empowered for change. However, several challenges relating to a possible lack of these change leadership characteristics have been identified under themes of strategy, culture, relationships, capability, and tactics (section 5.6). Leaders who use these change leadership characteristics would be better equipped to

deal with these challenges and lead change more effectively. While survey respondents identified strategic characteristics as the most important theme, culture, relationships, capability, and tactics are also very important.

From a strategic perspective, communication and consultation and establishing a clear vision were identified as essential characteristics for change leaders. Findings also highlight the absence of a vision and a strategic plan for the new TU, which is resulting in a lack of direction and inspiration for staff. This is no surprise given that the TU is at the formation stage. This may give rise to difficulties in achieving new research objectives. From a tactical perspective, developing and implementing a credible change plan and dealing with resistance and barriers to change are very important. This study has also highlighted the importance of incremental change to build momentum and help reduce resistance.

Cultural challenges previously identified relate to the strong influence of unions who regulate change and have tight interpretation of employment contracts limiting flexibility. Other challenges relate to a lack of agility or creativity and the presence of sub-cultures where tensions may exist. Developing a culture of trust, democracy and inclusion and achieving the change through integrity and courage, while maintaining openness and persistence have been identified in this study as essential and will help deal with these challenges.

Cultivating relationships between diverse staff and having their involvement in change from all levels early on is essential, especially in the context of the larger, more complex TU and more dispersed working arrangements which has given rise to various challenges. Although rewarding successes and celebrating successes seems like a trivial activity by some participants, it was identified as very important and one that could help promote and align behaviour towards desired goals or changes. With increased workloads because of the TU, ensuring staff are sufficiently trained and providing adequate resources are essential for leading change, according to this study. In addition, Project and change management training, processes, and dedicated resources to assist the TU through its transformational process are required. While relationships, capability development and providing resources

are important for power distribution, associated challenges may be hampering the empowerment of staff.

Conclusion

Stakeholders experience and value change leadership in many different and complex ways, depending on their role and culture. Any resistance to change may relate to a lack of knowledge or understanding of how such changes relate to change drivers, and how they align to the current and preferred organisational culture. Therefore, change leaders need an appreciation of these factors so that they can lead change within their own context.

Organisations are facing many challenges associated with the lack of change leadership. These challenges need to be addressed through increasing the presence of appropriate change leadership characteristics valued by stakeholders, so that staff endorse their leadership and change can be implemented more successfully.

5.9 Conclusion

In this chapter, mixed methods research findings have been analysed and presented to gain insights into change and leadership within an emerging TU. This has been facilitated through five subquestions, which have explored change drivers, cultural and contextual factors, staff perceptions, challenges, and change leadership characteristics.

The demographics of research participants indicates very active recruitment and promotional activity, which is resulting in a lot of staff role changes and new staff. Evidence of distributed leadership is present from reviewing the TU submission document, staff perceptions and interview discussions. While a complex array of external change drivers has been uncovered that are the source of many changes, the emerging TU also has internal contextual factors to consider such as staff tensions and pressures to rationalise while also growing research. These tensions have been explored using the OCAI competing values of hierarchy, clan, market, and adhocracy. While hierarchy was found to be the dominant culture, clan is also present and growing in importance, a balance across these four cultures was desired to create a suitable culture for the future TU. Although staff indicated they are

coping well in relation to change, a lack of resources and increasing workloads may be hindering their participation and preventing their empowerment.

Given the organisational pressures arising from the multiple change drivers and internal contextual factors, a wide variety of challenges emerged from this study, relating to change and leadership. These challenges were found to be directly related to the lack of change leadership characteristics synthesised from literature. Change leaders need an appreciation of their internal and external environment, so that they can lead change within their own context, while influencing the organisational culture. By increasing the presence of appropriate change leadership characteristics valued by stakeholders, challenges can be overcome so that change can be implemented more successfully.

Reviewing this chapter from a personal perspective, I found the carefully structured research stages were well developed to help address the research questions of this study. While reviewing the compact documents and TU submission, a deeper appreciation for the TU context was created to act as a useful starting point to refine the research design process as well as assess data from the rest of the stages. It also felt rewarding to incorporate the OCAI tool and the survey questions from Devecchi (2018) on change and leadership perceptions into the study so that established instruments could be availed of if available. As findings were analysed, the change leadership characteristics themes evolved. These themes became an important reference throughout this thesis which provided a sense of flow as well as helped consolidate characteristics into digestible concepts that then featured in the conceptual framework. It turned out that when reviewing the challenges of change and leadership, most of these related to these themes which also enhanced the flow of thought through this chapter. While addressing the main question of how stakeholders experience and value change leadership, it was an opportunity to consolidate findings of the previous stages and questions so that the next chapter could reflect on the main findings through the conceptual framework. In the next chapter, we will reflect on these findings to identify further insights by examination through the lens of the conceptual framework for this study.

Chapter 6 Discussion

6.1 Introduction

A key goal of this research was to try and unravel the complexities of leading change in higher education. Reflecting on the multiple stages of data gathered in this research, it is no surprise that Byrne (1998) argues that social science data is complex, structured hierarchically, is dynamic and non-linear. With the multiple theories and frameworks discussed in this study, we also note the supercomplexity associated with competing frameworks such as the competing values framework. A mixed methods approach with four stages was used to address the research questions, utilising complexity theory as the overall theoretical lens for this study. This chapter draws from literature and relevant policy to discuss findings presented in Chapter five. The change leadership conceptual framework developed for this research will inform this discussion. The first section presents key insights from this study. These insights, presented through the lens of the conceptual framework, provide valuable direction for leading change in higher education. Having gained a deeper understanding of the use of the conceptual framework, minor changes to it will be proposed for future researchers. A demonstration of how this framework can be used as an organisational diagnostic tool will also be provided, followed by a conclusion. Overall conclusions, limitations and recommendations for this study will then be presented in the final chapter.

6.2 Key insights into leading change in higher education

In section 3.6, the change leadership conceptual framework (Figure 3.10) was developed to provide insights into the inter-relationships between the key topics of this study. Using complexity theory as a theoretical lens, the conceptual framework incorporates complexity leadership (Uhl-Bien and Arena, 2018) and the competing values (Cameron and Quinn, 2011) to create relationships between change drivers, change, change leadership and change leadership characteristics. In this section, the conceptual framework is used to help understand how external change drivers are resulting in change, as the TU reacts to its external environment for survival. The central importance of culture on change leadership is also discussed. Leading change in higher education will then be reviewed, as well as change,

its dynamics and complexity. Change leadership will then be reflected upon, and associated recruitment and development.

Responding to change drivers

Referring to the conceptual framework developed for this study in section 3.6, Figure 3.10, subtopics of change drivers feature under the primary concept of continuity. This framework suggests that organisations are complex adaptive systems that respond to their changing environment to survive (Uhl-Bien and Arena, 2018). They respond and react to its environment through emergent change and alignment activities (Uhl-Bien et al. 2007). In this section, evidence will be provided to demonstrate how the TU is responding to its environment and change drivers, through emergent and adaptive change as well as alignment activities. These activities are supported through adhocracy (create), clan (collaborate), hierarchy (control) and market (compete) organisational cultures.

The Covid-19 pandemic occurred during this study and participants highlighted it as a change driver and catalyst for digitisation, which facilitated increased collaboration and online learning. This aligns with Mukaram et al. (2021) who argues that digital systems enhance organisational learning. Findings also indicate the positive benefits of using digital technology and remote working to improve efficiency and this supports Gelaidan et al. (2018) who believe that organisations are adapting technology to remain competitive. As a result of the transformational knowledge and experience people have gained through remote working and using various software, the HEI sector has adapted and evolved significantly because of the Covid-19 pandemic and demonstrates the significant of this driver of change. Findings also suggest that it is an example of a change driver that promoted emergent and adaptive change so that the organisation could adapt quickly to its changing environment through creativity and collaboration to create new teaching approaches and modes of delivery. This suggests that leaders empowered staff to come up with ideas on how to adapt to their new environment and shared power through knowledge and capability via their relationship network.

While gender disparity policy is an external change driver, which is having a positive impact on the TU by promoting better gender balance through initiatives such as achieving the

Athena SWAN Bronze Institutional Award, the conceptual framework also includes the importance of diversity in teams to facilitate emergent change. While the Gender Action Plan 2018-2022 (DES, 2018) discussed in Chapter two, is a welcome initiative driving a more diverse workforce, especially at senior management positions (Suboticki and Lagesen, 2022), findings suggest that progress is being made, but further work is needed (Clancy, 2015; Walsh, 2018). Hence, diversity and equality policy are currently driving organisations to adapt through their recruitment processes from the top down through positional power influences. In addition, it can be argued that increasing diversity will facilitate more diverse teams and associated emergent change by reducing groupthink (HEA, 2016) and increased interaction of more diverse views is supportive of a complex adaptive system (Uhl-Bien and Arena, 2017).

From a broader diversity perspective, a survey respondent referenced a desire to increase the number of international staff, which was also referenced in the TU submission document. With the drive to increase international students who have attractive student fees (Howells et al. 2014) coupled with planned growth in research output outlined in the TU Act (2018) that many attract more international staff, the overall diversity of the emerging TU will likely continue to increase. As a result, TU legislation will also act as a change driver to improve diversity through increased internationalisation, which is an important component to the experience of learners living in a globalised world (Said et al., 2015).

Government policy and funding were also identified by participants as significant change drivers, and indications were that this influence was growing because of the recent HEA Act (2022). With the draft Higher Education System Performance Framework 2023-2027 (HEA, 2023a) discussed in Chapter two, government funding linked metrics will be in continuous focus by HEIs who will need to react and demonstrate progress in these disparate areas. While funding and efficiencies were of particular concern to participants, concerns associated with the growth of neoliberal policies were noted. These included educational leaders becoming disconnected from teaching and learning (Courtney et al. 2017), research being prioritised over teaching and a lack of resources to deal with more diverse students (Loxley et al. 2014) and outreach and engagement becoming less important (Kliewer, 2019).

Hence, change leaders will need to be aware of these issues, while responding and adapting to these external performance related policy drivers. Critical reflection is required on such reform measures to ensure the real work of education remains central to their activities (Ball, 2016, Kohtamaki, 2019).

While government policy and funding resonate with managerialism, Walsh (2018) believes that managerialism creates a more hierarchical authoritative management style, where Ireland is among the highest in Europe in this regard. This would suggest the organisation is responding primarily through top-down, alignment activities to deal with managerial related activities such as government funding and policies. Although a more top down or alignment approach may result from this change driver, it can give rise to resistance as staff try to protect their freedom from external controls (Lumby, 2019). Therefore, emergent change through creative and collaborative initiatives could contribute positively by reducing resistance and helping to ensure that any negative effects can be minimised where possible through a collective approach.

Sustainability was identified as another change driver in this research and features as a key performance indicator in the draft performance framework (HEA, 2023). Referring to the conceptual framework, sustainability in the broader sense relates to organisational continuity. By taking a more collaborative, systems perspective, leaders support a more sustainable approach to leading their organisations (Fullan, 2006; Kinchin, 2023). Dahlvig (2018) also argues that climate change and sustainability are pressing issues for HEIs, as they embed the UN sustainable development goals into curriculum (Warwick, 2016). This issue has become central to many HEIs, in fact the first TU Dublin strategic intent 2030 document was developed through the lens of these UN goals (TU Dublin, 2020). With recent reports of ongoing global warming and associated fires and floods, this will become a major focus as HEIs try and equip the future workforce with adequate knowledge and skills to address these complex challenges. By embedding it in strategic plans and teaching curriculum, sustainability is being addressed by both strategic alignment activities and emergent change through teaching and innovation.

The National Strategy for Higher Education (DES, 2011) and the consequential TU Act 2018 has resulted in significant change, as new TUs merge, create new strategic plans and develop their research output to achieve the required metrics. While this initially was an external policy influenced change, to achieve the criteria, evidence was uncovered from the compact documents and TU submission document that cross- functional collaborative initiatives took place through various working groups and committees that were based on trust and respect. While each institute may have had different roles to play in progressing the TU initiative and the compilation of this document (e.g. leader versus follower), the three organisations collectively succeeded in achieving the TU metrics and TU status which was a challenging task, especially during a global pandemic. In relation to the conceptual framework, this suggests this driver resulted in emergent and adaptive change as well as top-down alignment change. Given the future stretched metrics around research, this policy driven change driver will continue to be a major source of change as IOTs evolve into fully functioning TUs. Through three previously competing IOTs with significant expertise coming together, participants identified significant opportunity for collaboration and growing research. However, concern was raised with regards to academic capabilities and balancing teaching and research. Given the National Strategy for Higher Education (DES, 2011) was economically focused during development (Walsh, 2018), efficiency as well as rationalisation of programmes were raised as additional concerns by participants and is likely to experience resistance.

Furthermore, this study highlighted many issues associated with empowering staff due to having insufficient staff to deal with increasing workloads, training and development and change management as well as infrastructure deficits to support growth. While investment in funding, planning and structures previously detailed in the TURN report (2019) and OECD report (OECD, 2023a) need to be considered to enable TUs to achieve their mandate, TUs will need to identify creative solutions to do more with less through emergence and collaboration, while also maintaining control through alignment. Research on university mergers from Choi et al. (2011) agrees that a more collaborative approach works better than only a top-down approach so that buy in across the organisation is possible. By giving

power to others through empowerment, Lumby (2019) suggests that this increases the power of leaders as it binds the individual to the giver so that this situation is maintained.

While the conceptual framework links continuity and change drivers to emergence and alignment, the key change drivers discussed are clearly causing ongoing organisational change through both emergence and alignment of activities. While emergence links to continuity through external focus and differentiation, this suggests that the emerging TU can also influence its external environment. For example, it could act as a role model for how to deal with certain changes through innovation and adaptability for other TUs to benchmark against etc. However, with the focus on the emerging TU and its organisation, this study highlights that the TU merging process is the most significant change driver at present from a participant perspective and one that will have long lasting implications. A major enabler to this process is sufficient funding, linked to performance frameworks and government policies. Until sufficient resources are put in place to empower staff, many challenges will exist as TUs try to adapt within limited resources.

Importance of culture for change leadership

The concept of culture is important in this study to help understand how change, leadership and organisations interact. The conceptual framework indicates that the cultural values of adhocracy, clan and hierarchy relate to entrepreneurial leadership, enabling leadership and operational leadership respectively, while a market culture relates to continuity. While a hierarchical culture emerged as the dominant culture, formal leaders identified that a better balance between the four quadrants of clan, hierarchy, market and adhocracy is desirable, and this could be achieved by more empowerment of staff, adjusting the presence of change leadership characteristics, reducing the hierarchical culture and strengthening the clan and adhocracy cultures. This indicates reducing operational leadership/ alignment while strengthening enabling leadership/ adaptability and entrepreneurial leadership/ emergence. These findings are supported by Clancy (2015) who believes that top-down mandates may have limited ability for fundamental change and Choi et al. (2011) who argues that top-down management carries a lot of risk due to a clash between professionalism and managerialism, leading to resistance as staff protect their autonomy (Luby, 2019).

Concerns around the agility of the TU to respond to challenges in its environment were identified in this study and a hierarchical controlling culture could be contributing to this issue due to a lack of staff empowerment. Although unions have a strong presence and controlling influence over change and may be helping to escalate unmanageable workloads for some staff, they could also be contributing to a hierarchical culture. Further, hierarchy is in tension with creativity and its dominance could result in a lack of innovation as the TU consolidates and forms new systems and processes. Rather than create new improved processes through effective collaboration of diverse teams, a more hierarchical culture could result in less creativity, where current processes are made do, which could have a long-term negative impact on the overall organisational efficiency and data management processes.

Findings reveal a growing importance for collaboration as the emerging TU forms new relationships and networks across the merged organisations, and this has further potential advantages of improving creativity and strengthening research activity. The synergy between creativity and collaboration is supported by Obendhain et al. (2010) and Devecchi et al. (2018) who argue that collaboration builds trust and relationships and facilitates change and creativity. This study also indicated that the market and adhocracy cultures were low, and this is in line with HEI culture findings from Gorzelany et al. (2021). While higher educational leaders navigate various cultures that impact the operational fluidity of HEIs at all levels (Phillips and Snodgrass, 2022, p.8), they need to help influence the TU culture to develop and evolve. This process will be shaped by previous organisational cultures as well as the contextual factors, change drivers and the presence and importance of change leadership characteristics.

Leading change in higher education

Central to the conceptual framework are the five change leadership themes of strategy, culture, relationships, capability, and tactics which influence emergent, adaptive and alignment related change through the adhocracy, clan, and hierarchy organisational cultures. Although the presence of change leadership characteristics were unclear to research participants, which could be negatively contributing to organisational challenges,

they were recognised as being very important and essential for leading change. In this section, I will examine how these change leadership themes directly influence change within a higher educational environment and draw on literature to provide further insights. Change leadership culture will be initially reviewed. As the themes of relationships and capability have strong synergies as does strategy and tactics, these themes will be discussed together.

Fostering a change culture

While culture is embedded in the framework through the competing values of clan, adhocracy, market and hierarchy, it also is a central change leadership characteristic theme that will now be examined further. Trust, democracy, and inclusion were the most important cultural change leadership characteristics identified by survey respondents, which aligns with Magsaysay et al. (2017) and Burnes (2020), but these characteristics were also the least present. However, on review of the compact documents, it appears that sufficient trust was developed over many years to facilitate respect and collaborative initiatives across three separate institutions that led to achieving the TU metrics. While people are getting to know their colleagues in other campuses, it is likely that trust will take time to strengthen. Trust could also be negatively impacted by the lack of resources due to TU integration, which can cause excessive workloads and hamper the change management processes that lead to effective communication across diverse stakeholders. Encouraging creativity and innovation were also characteristics (Gilley, 2005; Fullan, 2020), but their presence was also unclear, and this resonates with the strong hierarchical culture, which may be restricting innovation and staff empowerment. Having integrity, courage, openness, and persistence were identified as being important also, which supports Gilley (2005) and Burnes (2020). The lack of persistence could be related to capability constraints where sufficient capacity to follow up on changes and deal with barriers and conflict effectively may not be available. From this study, evidence has been provided that cultural characteristics are very important, and these characteristics enable a culture that is supportive of change, whether it is at the emergent, adaptability or alignment stage of development. Creating a culture or context that enables staff to choose activities that are desirable allows leaders to influence staff (Lumby, 2019)

Leading with strategy and tactics

Regarding the conceptual framework, although related characteristics of strategy and tactics may be more linked to top-down changes relating to alignment and control (e.g., creating the case for change, developing plans, and determining the impact and sustainability of change), many characteristics such as communication, understanding complexity, inspiring staff, dealing with resistance and barriers relate to all types of changes, including emergent change and adaptability. Strategic characteristics were perceived as the most important by respondents. This could be because of a lack of a strategic plan for the new TU, causing participants to feel they were in a state of flux without a clear vision to inspire them.

Although communication and consultation are seen as very important strategically, the study reveals that the new TU is likely to increase in complexity due to its larger scale and spread, so developing a new strategy may be a significant challenge, especially in the context of a diverse workforce with multiple subcultures and a lack of resources and increased workloads associated with the merging process. From a policy perspective, we also note the additional challenges of compliance with evolving performance frameworks. In addition to the future TU metrics focusing on research, TUs may find it difficult to maintain regional focus and diverse mandates, while facing the challenges of running multiple campuses as suggested by Clancy (2015). Furthermore, growing research output, and delivering on the performance framework will require strategic focus and leadership to overcome resistance. For leaders to think strategically, they need to step back and take a broad perspective of their organisation and context to assess change drivers through critical reflection (Ball, 2016). Their positional power can shape the direction of the emerging TU by regulating change initiatives while maintaining focus on education and surviving in its environment.

Concerns in relation to strategic planning emerged during the strategic dialogue process between HEIs and the HEA where there was a lack of evidence of strategic prioritisation and coherence (Thorn, 2018). Findings from this study support this concern as the presence of strategy characteristics was unclear. Communication and consultation as well as inspiring staff were the least present characteristics. This could be because of several factors such as the increased complexity and diversity of the new TU and its structures, and the lack of a

new strategic plan to provide direction and inspiration to staff. With a lack of strategic direction, the framework suggests that alignment may not be present which could give rise to multiple practices and a lack of integration, resulting in stability and control concerns.

In relation to the implementation of change such as the strategic plan, tactical related change leadership characteristics deal with resistance (Burnes, 2020; Gilley, 2005), barriers (Burnes, 2020; Gilley, 2005), and promotes incremental change (Gilley, 2005; Guerrero et al., 2018). While the study reveals that removing barriers and dealing with resistance were the least present tactical characteristics, some resistance to change was identified, as well as the strong controlling influence from unions. While HEIs experience external neoliberal influences, staff respond in various ways such as engaging, disengaging, supporting or resisting related change, staff need confidence and resilience to deal with associated fear and anxiety (Zembylas, 2022). Making change incrementally and building momentum is supported from this study, can help reduce resistance as staff and aligns to Waring (2017). A lack of change management resources and skills are evident from this study also. Given the importance of getting an effective strategic plan developed and implemented for the new TU, to set the vision and direction and align activities towards the new TU metrics and performance frameworks, the presence of the strategic and tactical characteristics needs attention. To provide direction and vision to staff and deal with resistance, leading with strategic direction and tactics are important for change in higher education.

Developing relationships and capability

Within the conceptual framework, relationship characteristics such as developing and maintaining relationships, involving staff from all levels, and building diverse teams are relevant to emergence, adaptability, and alignment. So too are the capability characteristics associated with training, providing adequate resources, sharing knowledge, systems and procedures and knowledge of change theories. While relationships enable power to flow between staff (Ladkin and Probert, 2021), and increasing their capabilities empowers them (Luby, 2019), we will now discuss these through related findings and literature.

Providing adequate resources (Guerrero et al., 2018) was identified as the greatest concern for capability change leadership characteristics and this may be negatively impacting the

related characteristics such as the ability to share knowledge, develop effective systems and procedures (Gilley, 2005), delegate responsibility (Burnes, 2020) and possess change management skills (Holten, Hancock and Bollingtoft, 2019), all of which impact all types of change. It also can prevent developing a more collaborative culture as staff resist taking on additional tasks due to workload constraints and tight union interpretation of existing employment contracts. Furthermore, insufficient resources (Guerrero et al., 2018) could negatively impact staff relationships (Magsaysay and Hechanova, 2017) and the ability to involve staff and create diverse teams, provide time for rewarding and recognising staff and celebrating wins (Fullan, 2020). Although capability constraints due to historical controls may be less prevalent, increased workload associated with TU transition is very evident. This is also impacting the ability for staff training and development, which may disrupt successful role out of various changes. Constraints associated with capability need to be addressed to empower staff and may require external influence through collective power plays with other HEIs to lobby for additional funding from government. Findings also support the TURN report (2019) which calls for significant investment in resources to enable the TU to develop and adapt in line with the TU Act 2018.

Leadership positions such as Heads of Department were identified as being important for leading change which supports Phillips and Snodgrass (2022). However, some difficulties were raised in relation to their workload and lack of supports which can hinder the important role of Heads of Department and these findings strengthen the recommendations within the OECD report (2023a). Furthermore, findings indicate that project and change management skills and resources are in short supply with little dedicated resources in place to facilitate and manage the significant volume of changes currently taking place due to the TU transformation, which is in addition to a broad spectrum of demands and changes happening independently. The lack of these skills and resources are holding back the empowerment of staff and are directly related to some of the challenges identified for strategy development and tactical activities.

Resource constraints are causing difficulty with relationship building, staff involvement and recognition. In the larger organisation, many staff do not know each other from different campuses. Coupled with a reduction in face-to-face interaction because of a more hybrid

approach to working since the pandemic, it could be argued that developing and maintaining relationships is not straightforward. Given the previously discussed issues around resources, it could be difficult to free up staff or get volunteers to go onto change teams. This is supported by the fact that a minority of survey participants believed that resources were available to support their input to change. Furthermore, with a desire to increase collaboration and promote creativity and adaptability, the current hierarchical culture and alignment may also be a barrier to facilitating more diverse interaction and teamwork where staff are more empowered.

While further work is needed on gender balance, the TU has a diverse staff profile, which will become more diverse as the TU develops its international presence and research base, from a student and staff perspective. Therefore, having diverse teams through a more collaborative culture supported by good relationships will be even more important to facilitate buy in and development of changes (Fullan, 2020). Participants want to see more leaders rewarding and recognising staff (Gilley 2005) and celebrating wins (Kotter, 2012), which can foster a more collaborative culture, knowledge sharing and associated capability development. Overall, developing relationships and capability are important areas for change leadership in higher education and are interrelated as they enable power to flow between staff through relationships so that they are more empowered with new knowledge and capabilities. This enables all types of change, especially more emergent and adaptive related where feedback is important.

Change and dynamics

Within the conceptual framework, emergent change supported by diversity and feedback exists, supported by entrepreneurial leadership and an adhocracy culture. New ideas are spread across the organisation through adaptability, where leaders link up different social networks through a clan culture and enabling leadership. Alignment from the top-down through operational leadership and a hierarchical culture occurs when leaders sponsor emergent ideas and integrate them through their organisation as 'the new normal.' As a result, there are multiple change dynamics that enable organisations to react to their external change drivers and allow them to be agile and survive in a changing environment.

Change arising from responding to change drivers has been discussed in section 6.2 and there are strong indications of both top-down alignment and some evidence of emergence/ adaptability. Previously, participant perceptions about change were reviewed in section 5.5 of this study. While staff feel secure, are coping with change and become empowered by contributing to change, there are concerns regarding their ability to make their voice heard and having the supports required to be involved, support and lead change. This is likely linked to the resource constraints and lack of empowerment previously discussed as well as the hierarchical culture that dominates the organisation. Despite this, most participants understand why and how change is happening which could relate to training being perceived as the most important capability characteristic. Organisational learning capability makes it easier to implement change processes (Mukaram et al., 2020, Dee and Leisyte, 2017). The minority feel that change is imposed on them, and this could be because of leadership being found at all levels of the organisation (although these leaders may be restricted due to resource constraints).

Out of the multiple change drivers in section 5.4 and the previous section, the benefits of both top-down alignment related change and a creative/ adaptive approach to change are suggested. The most pressing change driver relates to the TU merging process which could be classified as a planned change (Van der Voet, 2014a) or second order change at organisational level (Kuipers et al. 2014) where the leadership team sponsored this strategic initiative (Uhl-Bien and Arena, 2017). Such planned change could be seen as a more top-down approach (Van der Voet, 2014a), where externally developed TU metrics within legislation drive activities. This is an example of government power working through policy to achieve their objectives. However, within the TU submission document, we see strong evidence of collaboration and engagement through the formation of various diverse, working groups where social networks are linked up and feedback is provided (Uhl-Bien and Arena, 2017), which is evidence of both emergent and adaptive change. Further evidence from the staff survey also indicated most participants are part of a team to support change and feel involved and understand why and how change is happening. In addition, the Covid-19 pandemic and the drive for sustainability provided some indications of both alignment and creative change where staff are empowered to act.

From a cultural perspective, while adhocracy (linked to emergence) had the second lowest cultural score in the OCAI (section 5.4), managers and leaders indicated that this culture is currently weak, while hierarchy is dominant. In addition, encouraging creativity and innovation was one of the least present characteristics within the cultural theme (section 5.7). Hence, this suggests that emergence may be less present in the emerging TU in comparison to top-down alignment related changes driven by formal leadership through positional power and authority. As only half of survey respondents indicated that they are involved in change, are on a team to support change and that managers enable them to take part in change, this also indicates a weak creative culture and a lack of empowerment. While challenges exist (outlined in section 5.6) associated with creating diverse teams and providing feedback due to resource constraints, and a lack of a creative culture, emergent change may not be sufficiently facilitated. This is concerning given that Edwards et al. (2018) highlighted the importance of creativity and innovation. However, these findings are no surprise and support Gorzelany et al. (2021) who highlighted the tendencies of HEIs to focus on stability rather than creativity. By developing a more collaborative culture, innovation can also be fostered (cited by Obendhain et al. 2010).

The conceptual framework shows that emergence is connected to adaptability where emergent change can spread across the organisation to evolve further. Supported by enabling leadership that facilitates the linking up of various social networks, these changes can be disseminated further through stronger relationships and staff capability. Although there is evidence of adaptive change associated with the TU merging process, given the potential lack of emergent change in the research findings, adaptability may be less prominent. Although there is a desire to increase collaboration, the current culture dominated by hierarchy, may be less supportive of adapting emerging changes across the organisation. Overall, having reviewed change and its dynamics through the conceptual framework, change drivers are causing change and there is strong evidence of top-down change, with less evidence available for creativity and collaboration, and cultural findings and organisational challenges support this perspective.

Complexity

The conceptual framework suggests that many forces are driving complexity, and with greater interconnectivity and redistribution of power, information flows facilitate people to link up and drive change in different ways (Uhl-Bien and Arena, 2018). Complexity arises throughout this study and was referenced in most papers identified in the systematic literature review. Question one of this research (section 5.4) explores the diverse and evolving change drivers, that the TU are responding to (section 6.2). This resonates with Howells et al. (2014) who highlighted that the number of actors such as ranking agencies and funding agencies is increasing. Chapter two also introduced the complex and evolving regulatory environment of HEIs. The cultural assessment carried out in this study (section 5.4) revealed insights into the competing values between adhocracy, clan, market and hierarchy. This supports Chow (2013) who highlights that HEIs are complex, imperfect social organisations. Clancy (2015) also alludes to complexity arising from more entrepreneurial expectations on HEIs, which already have diverse and multifaceted responsibilities in society. This suggests the presence of challenges associated with growing creativity through entrepreneurial leadership. Overall, the findings from this study concur with Byrne (1998) who states that the word complex is relevant to social science data. Furthermore, while Bartnett (2000) argues that the modern world is in fact supercomplex in character, where multiple and often competing frameworks are used to help understand it, this study has developed a new framework to help understand change and leadership in higher education, making our world even more supercomplex!

As the TU emerges, the study suggests that dealing with complexity is important so that the broader implications of changes across its large, siloed structures are better understood. Understanding that change can be complex and not straight forward was perceived by survey participants as being very important/ essential (Gilley, 2005; Fullan 2020). This supports Higgs and Rowland (2005) who argues that assuming change is complex results in more successful change occurring. As the TU focuses on its new metrics, new research supports and structures will be built into an already complex organisation. The presence of complexity found in this study also aligns to THEA (2019, p.13) who support its members in

'navigating their way through an ever changing and unceasingly complex external environment.'

From a change leadership perspective, this study indicates that a large selection of characteristics identified from literature are very important/ essential (section 5.7). Encompassing strategy, tactics, culture, capability and relationships, leadership roles are multifaceted and complex (Patton, 2021). Burrell and Rahim (2010) recommend that strategic thinking is important for higher educational leadership but has been prevented because of complexity. This resonates with the survey findings which identified strategy as the most important theme, but its presence is unclear. The change leadership framework from this study could help address the complexity faced by leaders as they along with their staff, navigate the interrelationships between context, culture, change and leadership.

Regarding change and its dynamics discussed in the previous section, evidence of a top-down leadership approach leading to alignment, as well as a distributed leadership approach resulting in emergence and adaptability was discussed. Hence, change is not straight forward for leaders due to its non-linear nature and multiple dynamics (Higgs and Rowland (2005). This supports Mason (2008a) who argues that the dynamics of complex systems is transformative through continual reorganisation and emergence. Emergent change can also result in conflict (Uhl-Bien and Arena, 2017) which increases the complexity for change leaders. Overall, complexity features heavily throughout this study and is something that change leaders need to become comfortable with. Also, using the conceptual framework that embraces complexity theory has helped understand the findings arising from this study such as the inter-relationships between the main concepts.

Reflections on change leadership, recruitment, and development

The conceptual framework includes the three complexity leadership components of entrepreneurial leadership, enabling leadership and operational leadership which support emergence, adaptability, and alignment respectively (Uhl-Bien and Arena, 2017). Having previously discussed these types of changes as responses to change drivers, it is evident that these are present, with alignment being the most prominent. Although alignment and operational leadership may be more hierarchical in nature than the other two components,

the conceptual framework and its change leadership characteristics promote a culture that focuses on trust, democracy, and inclusion, which is supported also by developing relationships and capability of staff. By ensuring adequate presence of change leadership characteristics to empower staff, coupled with a more collective, distributed leadership approach that includes entrepreneurial and enabling leadership, emergence and adaptability can be effectively supported.

While a distributed leadership approach was evident in the TU submission document, most survey respondents also agreed that leadership can be found at all levels of their institution. In addition, a minority of respondents believed that leadership was about authority to get things done which highlights the importance of staff empowerment. In the context of a hierarchical, controlling culture, these findings suggest that control is distributed (Lazaridou, 2019) and that distributed leadership is present in the emerging TU, which is supported by many scholars (Bolden et al. 2009; Choi et al. 2011; Lazaridou, 2019; Mukaram, 2021). This could also indicate the presence of adaptability and enabling leadership (Uhl-Bien and Arena, 2017). As Clancy (2015) suggests a top-down approach to change may have limited impact in the context of bottom heavy HEIs, where a lot of change takes place at academic level, the current distributed approach to leadership could be seen as a positive organisational attribute that is supportive of change, where staff are empowered to be involved. This approach relates to change leadership as it could also create a more supportive change culture and facilitates relationship building and capability development. In addition, effective strategy and tactical activities could be taken at a more distributed level, while supporting top-down alignment activities.

Change leadership features centrally in the conceptual framework and provides the support and leadership needed for change to occur through the organisational cultural values and complexity leadership. Although there is very little literature on change leadership and it appears to be non-existent for higher education, this study has indicated the importance of change leadership characteristics developed from scholars such as Higgs and Rowland (2000), Gilley (2005), Fullan (2020), Magsaysay et al. (2017), Guerrero, et al. (2018), Burke and Litwin (1992), Burns et al. (2020) and Kotter (2012). These characteristics support change leadership and change management, both of which are important for a merging

organisation (Holten, Hancock and Bollingtoft, 2019) and have a strong relationship to recipient's commitment to change (Van Der Voet, 2014a).

In addition, the conceptual framework highlights the importance of diversity (for emergence) and capability development. Recruiting new staff can influence an organisational culture by bringing in new capabilities and diversity into an organisation. Demographical data from participants suggests that staff recruitment is quite active. There is a strong belief from survey respondents that leadership is not for everyone and this echoes with Collins (2014), who argues that staff recruited for individual scholarship may not have the leadership skills to inspire and persuade. Therefore, relevant training should be provided to facilitate academics to upskill and be equipped for leadership. While progress is being made to improve gender diversity, recruitment of more females is slow and gender disparity remains, especially at leadership positions (Suboticki and Lagesen, 2022; O'Connor, 2020). While some participants support more recruitment from overseas to improve the diversity of staff, future recruitment activities are likely to be influenced by TU metrics such as greater research output, and this is likely to increase international recruitment and diversity.

From a leadership capability perspective, although the presence of change leadership characterises was unclear to participants, most survey respondents believed that leadership can be learned and develops in a context, which supports Patton (2021). Although leadership development was referenced in the TU submission document and there is wide support for staff to gain academic qualifications, little evidence existed of any structured leadership training and development. Also, given the lack of resources and high workloads reported by participants, sufficient time may be a challenge for staff to undergo training. Collins (2014) suggests that due to a culture of individual scholarship, academics may not get encouragement to develop as academic leaders. As this study revealed a lack of change leadership characteristics, which could be negatively impacting on how changes are being made, there is a strong case for leadership training (Kohtamaki, 2019). With multiple changes arising from the TU transformation, change management training is also important (Gebretsadik, 2022) and is currently lacking. As the rate of change increases during the merging process, these skills will grow in importance.

6.3 Proposed change leadership framework

Having used the conceptual framework as a lens to gain insights into the findings of this research, a better understanding of the conceptual framework itself has been gained. As a result, some minor refinements are proposed to the framework to facilitate future research in this field as well as its possible use as a diagnostic tool for organisations.

In previous sections, TU change drivers were discussed, which represent the external organisational context, while culture represents the internal organisational context. Although the conceptual framework had concepts of change drivers, context, and staff located under the concept of continuity, it is proposed that the internal context, including staff perceptions which provide cultural insights, can be represented under the concept of culture. Culture is already located centrally as a change leadership theme and links to the four competing values of compete, control, collaboration and create. Therefore, it is proposed that culture will represent the organisational culture and staff considerations as well as the specific change leadership characteristics directly related to culture. This revision allows for the change leadership themes centrally located in the framework to represent the internal organisation. In addition, the concept of continuity represents the external organisational environment, where the organisation responds to its environment (and change drivers) in the marketplace to maintain continuity.

Furthermore, some of the subheadings relating to complexity theory and complexity leadership such as sponsorship, linking up, networks, diversity and feedback were useful to test the framework. However, to refine and streamline the framework for future use, it is proposed that these terms are removed as they can be assumed to be contained within the complexity leadership headings of Emergence, Adaptability and Alignment accordingly.

As a result of the collective learnings from applying the change leadership conceptual framework to this study, Figure 6.1 below presents a more refined change leadership framework for future use.

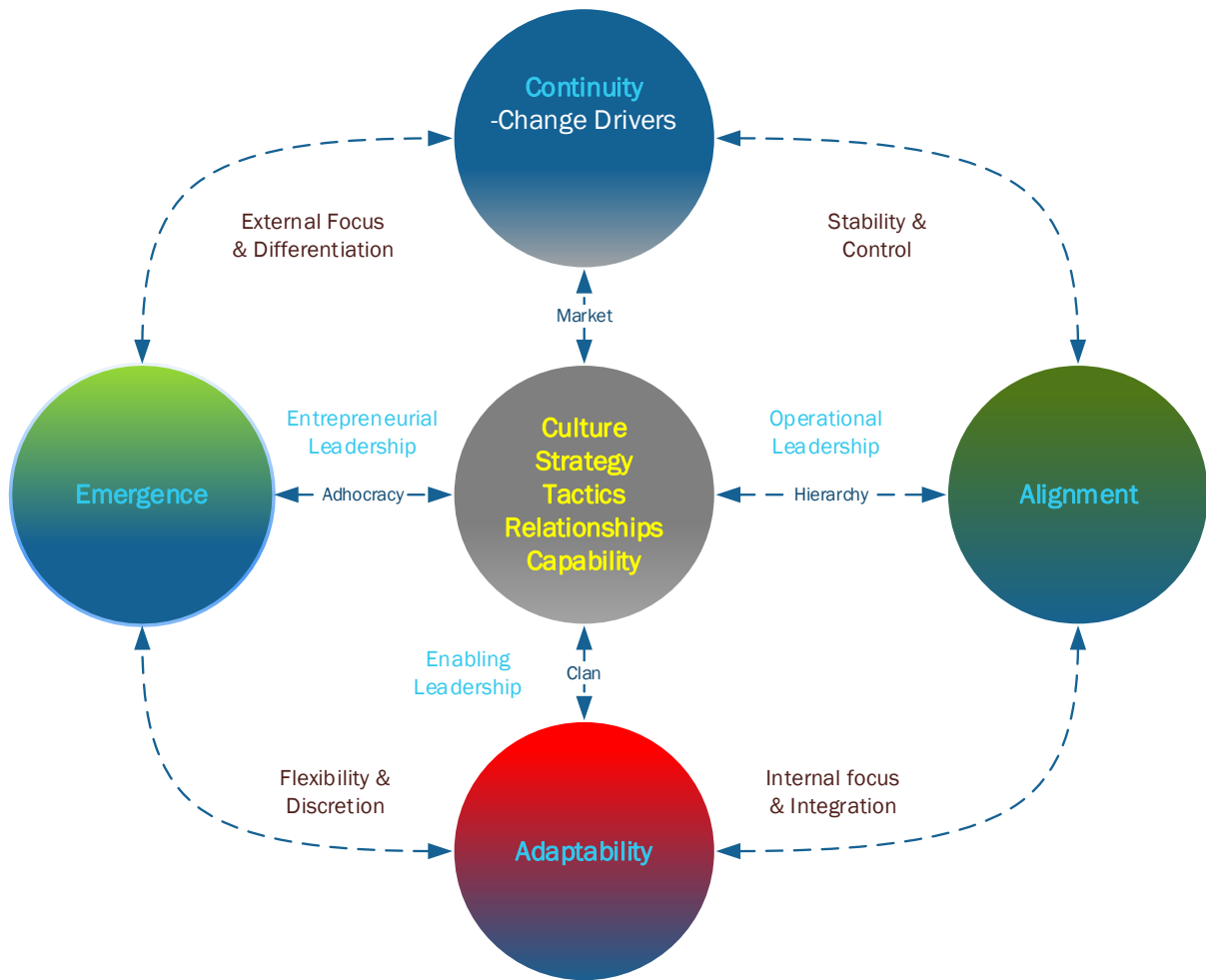


Figure 6.1: Change Leadership Framework

Application of Change leadership framework as a tool

Reflecting over the journey of this thesis, the literature review chapter not only created a foundation for this study, but also identified the key concepts that were relevant to change and leadership in higher education and enabled the creation of the change leadership framework. While the original change leadership framework was used to help address limitations of complexity theory and help provide theoretical and conceptual insights into the findings of this study, the refined framework is an important contribution and has the potential to be a useful diagnostic tool for organisations to assess how they are dealing with change and how responsive and adaptive they are to their external environment. To help provide some indicative evidence of its use as a tool and add tangibility to the framework, we will now use it as a diagnostic tool for this case study of the emerging TU, to showcase

its potential. The framework will be broken into four quadrants based on the outer connection descriptors such as external focus and differentiation, internal focus and integration etc.

Although many approaches to using the framework may be taken, the initial proposed approach to using this tool is suggested as follows:

1. List the primary external change drivers of the organisation and determine if emergence and/or alignment are most relevant for each one.
2. Taking the OCAI survey scores from the leadership domain, use the culture scores to determine the current and preferred quadrant most relevant in the framework.
3. Based on the quadrants in question, discuss the focus of the organisation and the strength of complexity leadership components of entrepreneurial, enabling and operational leadership.
4. From this review process, identify recommendations for the organisation in terms of change leadership characteristics that should be strengthened so that the organisation can develop a plan to move towards the desired quadrant.

The first step focuses on the primary change drivers of the organisation. In this case study, they are the TU formation, government policy and funding, sustainability and gender disparity and diversity. The framework indicates that both emergence and alignment are supportive of organisational continuity. While the change drivers may be primarily top-down alignment related from an external policy perspective, emergent and adaptive change across the organisation is important to utilise the diversity and capability of staff at all levels so that effective solutions to these changes can be created, evolved and implemented.

The second step involves determining the current and preferred organisational culture. The current culture is determined by using Figure 5.9 which indicates the percentage score for each IOT. Assuming the OCAI average of these scores is a reasonable representation of the new TU, this is calculated as 24% for clan, 22% adhocracy, 19% market and 36% for hierarchy. To identify the most active quadrant in the framework,

we add the percentage of each culture relevant to each quadrant as outlined in Table 6.1 below.

Table 6.1: Framework quadrant score

Quadrant focus	Relevant culture (A)	Relevant culture (B)	Score (A+B)
External Focus and Differentiation	Adhocracy (22%)	Market (19%)	43
Stability and Control	Market (19%)	Hierarchy (36%)	55
Internal Focus and Integration	Hierarchy (36%)	Clan (24%)	57
Flexibility and Discretion	Clan (24%)	Adhocracy (22%)	46

Table 6.1 indicates that the most active quadrant is internal focus and integration (overall score of 57) followed by stability and control (score of 55) and then flexibility and discretion (score of 46). The least active quadrant is external focus and differentiation with a score of 43. Although exact values were not identified for preferred culture in this study, the consensus from study participants was that clan should be increased and hierarchy should be reduced if possible. This suggests a shift from internal focus and integration to flexibility and discretion. To visualise this activity for current and preferred scenarios, Figure 6.2 and Figure 6.3 were created to indicate the most active quadrant in red, the next in orange, followed by yellow and the least active quadrant indicated in blue. Comparing these figures, we see the desired shift from the current activity which occupies both quadrants on the right of the framework, to the preferred activity which is in the two quadrants on the bottom of the framework. We will now discuss what this means from a leadership perspective.

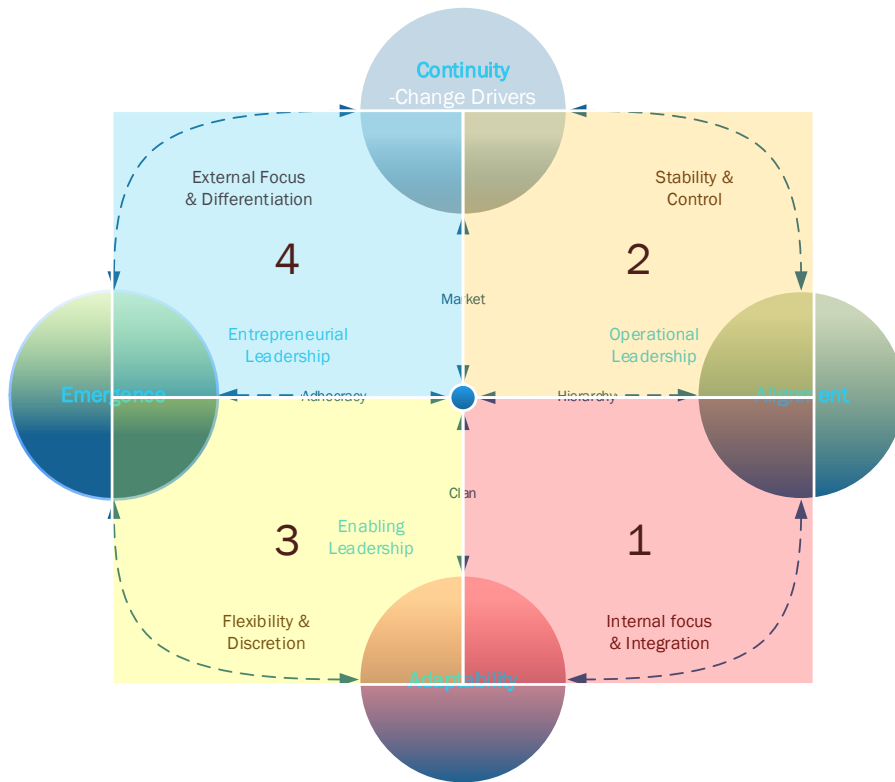


Figure 6.2: Framework current activity

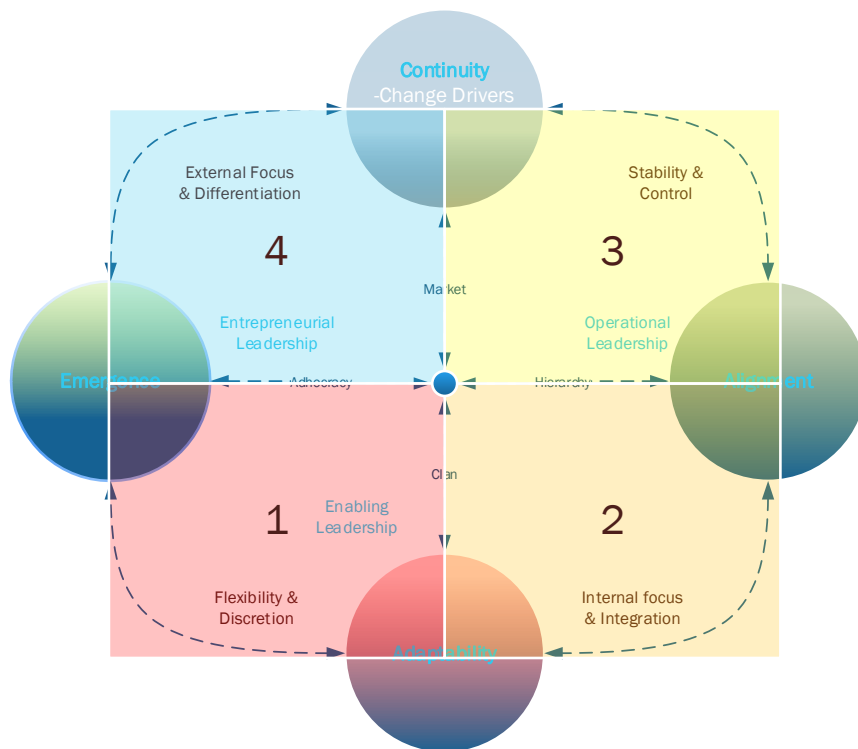


Figure 6.3: Framework preferred activity

Based on insights from step two and associated framework quadrants, step three involves discussing the focus of the organisation and the strength of complexity leadership components of entrepreneurial, enabling and operational leadership. In relation to current leadership focus, the framework suggests that operational leadership and enabling leadership are the most dominant approaches used for change in the emerging TU which leads to a dominant internal focus and integration. As the TU is undergoing significant integration across its multiple campuses from an organisational structures and systems perspective, this does reflect the existing situation from my experience. While the organisation also has a focus on stability and control (2nd highest quadrant), this resonates with the challenges being faced in relation to government policy and funding that are being carefully managed within the current funding model as well as the performance and control framework. When it comes to the preferred leadership focus being on flexibility and discretion, the framework suggests a growth in enabling leadership and entrepreneurial leadership activity is desired so that more emergent change can be supported, and the adaptability of the organisation increased. As the internal focus and integration quadrant has also reasonable activity (2nd highest preferred quadrant), operational leadership is also relevant so that alignment related change can be supported.

Step 4 involves identifying recommendations for the organisation in terms of change leadership characteristics that should be strengthened so that the organisation can move towards the desired quadrant. To support the development of the preferred leadership activities, the change leadership characteristics can be reviewed to identify the ones most relevant. It is now useful to reference Table 5.11 which shows the change leadership characteristics where each of the five themes are ordered by importance based on survey respondents. In addition, the two least present sub themes are in italics for each, and these will be reviewed as opportunities for further development. While strategy is important for all types of change, communication and consultation as well as inspiring staff are areas that could be strengthened. From a culture perspective, developing trust, democracy and inclusion should be strengthened to support all types of change and encouraging creativity and innovation is more relevant for emergence and adaptability. While relationships are important across the organisation, increasing the involvement of staff from all levels and

rewarding and recognising staff should be considered. To support all types of changes, adequate resources and knowledge of change theories should be improved. Finally, in relation to tactical considerations, identifying and removing barriers and dealing with resistance are important areas that leaders could be more effective. By using the change leadership findings from this study to guide future leadership development, the overall organisational culture can be influenced so that the preferred culture with stronger flexibility and discretion can be created.

Having applied the four-step process for using the change leadership framework as a diagnostic tool, useful and visual insights have been gained to witness the framework come to life in a tangible way. By testing the framework as part of this study, it provides further evidence of its potential for future application and research. It also helps provide a tangible overview of the change leadership framework in general. While the framework can help deal with complexity by demonstrating the relevance of each framework component for leading and manage change in HEIs, it also can provide direction for improvement through focusing on change leadership characteristics that need to be strengthened. Although this study has focused on an emerging TU, given the diversity of change leadership literature used from various sectors, it is likely that this framework would be of interest to many other sectors.

6.4 Conclusion

Having examined the findings of this study through the lens of the conceptual framework, key insights have been gained to help understand the complex relationships between change, culture, and leadership. Multiple change drivers were found to be causing the emerging TU to respond and evolve so that it can survive and continue. The TU responses to change drivers involved various types of change dynamics including emergence, adaptability, and alignment, the most prominent being the latter. For example, responses to Covid-19 were more emergent and adaptive, while responses to government policy are more alignment related. This new knowledge made me view change and its dynamics from a different perspective. I was familiar with top-down change dynamics but did not have a good understanding of bottom-up emergent initiatives and their importance.

While the current organisational culture is more hierarchical, typical of such a public sector organisation, the presence of a clan culture also exists. Although hierarchy is supportive of alignment and top-down change, it can inhibit agility and creativity by a lack of staff empowerment. As findings indicate the growing importance of a clan culture to help create new relationships and networks across the new TU organisation, change leaders will need to help develop a culture that embraces collaboration and creativity, while also maintaining alignment. I always believed in relationships being central to this study and it was rewarding to see that stakeholders agreed that strengthening the clan and adhocracy culture was important. With a desire to be in control as a leader, insights about adhocracy, diversity and feedback as well as adaptability broadened my understanding of the remit of leaders and made me more open to empowering staff without being in direct control.

Although the presence of change leadership characteristics was unclear to research participants and their absence could negatively impact organisational challenges, they were recognised as being very important and essential for leading change. Fostering a supportive change culture is important for change leaders as well as leading with strategy and tactics. Leaders also need to ensure they focus on sharing power by developing relationships between staff as well as growing staff capabilities, to equip them for current and future changes. These insights have been invaluable from a personal leadership perspective and encouraged me to progress my own personal development through coaching. I found this reflective approach enlightening and helped me to understand the bigger picture from an overall organisational perspective. While the characteristics are broad in nature, I find the five associated themes very user friendly to consider.

This study has revealed complexities associated with leading change in higher education. Findings highlight the multiple change drivers and the regulated, evolving environment of higher education that leaders need to work within. At the same time, leaders need to critically reflect on external influences to maintain their focus on education, and lobbying for funding to address resource constraints is warranted to empower staff further. Internally, tensions have been identified between the diverse staff, and this is being compounded by increasing workloads associated with the TU merger and a lack of overall resources. Therefore, a wide range of change leadership characteristics are required to deal

with the challenging being faced. By increasing their presence, the TU can become more adaptive and responsive to its environment through emergence, adaptability, and alignment related changes.

Despite the prominence of a hierarchical culture that resonates with operational leadership, findings reveal a distributed leadership approach exists that is supportive of entrepreneurial and enabling leadership. While change leadership and change management characteristics are growing in importance for the TU, effective recruitment and development of leaders has never been as important during this significant time of change, as the TU is at its early stages of development. Having tested the refined change leadership framework on the emerging TU, we get a tangible understanding of how the framework can help address complexity and reveals the importance of change leadership for supporting change. By addressing the least present characteristics, the TU can improve its emergence and adaptability which is desired by its staff so that the organisational culture can evolve. In the next and final chapter, the conclusions and recommendations arising from this study will be presented.

Chapter 7 Conclusions and recommendations

7.1 Introduction

In this final chapter, the contribution of this study to knowledge, policy, and practice will be discussed. I will then reflect on the overall research process and personal learning and then outline the research limitations. Recommendations will then be discussed and areas for future study outlined, followed by a conclusion.

7.2 Research contributions

Contribution to knowledge

The influence of context on change leadership was identified as a gap in research (section 3.4) as well as the associated challenges and complexities facing leaders. No consensus exists on change leadership and associated characteristics required to support all types of changes in higher education. Furthermore, the systematic literature review suggested that existing literature is weak in relation to the instrumental knowledge domain (Gunter, 2016) and a mixed methods approach has not been used to date.

This case study research has begun to address these gaps through a mixed methods approach to explore the topics of context, change and leadership in an emerging TU. Taking a pragmatic philosophical paradigm, instrumental knowledge was uncovered to help put forward recommendations for practice that will be discussed later.

From the systematic literature review (section 3.2,) new insights into change and leadership in higher education were identified. As research indicated that this type of review was not previously carried out in literature, a research paper was developed to disseminate findings (McSharry, 2022). It is hoped that this paper will foster an interest in change leadership from scholars so that knowledge in this area can be strengthened.

In addition to gaining an in-depth understanding of the importance of context and culture in higher educational change leadership, the use of the leadership domain questions from the Organisational Culture Assessment Instrument (Cameron and Quinn, 2011) were used in this research. Existing literature suggests that this tool may not have been used to date in Irish

HEIs. As a result, this study expands existing knowledge and reveals some new insights into the culture and competing values within Irish HEIs, where hierarchy may be the prominent culture and there is a desire to strengthen collaboration. These contextual and cultural findings were presented at a recent conference (McSharry, 2023).

The stage 3 staff survey (Appendix 7) utilised questions regarding perceptions of change and leadership from an existing instrument previously used in UK higher educational research (Devecchi et al. 2018). This has facilitated a comparative study between Irish and UK HEI cultures. Having initially gained permission to use this instrument from one of the main researchers (Devecchi), a collaborative research paper with Devecchi was developed and presented at a conference, which compares HEIs in the Irish and UK contexts (McSharry and Devecchi, 2023). This has potential to act as a catalyst for other researchers to use this instrument in HEIs based in different countries.

Having synthesised 25 change leadership characteristics from literature and confirmed their importance through this study, these characteristics could be further tested through a similar questionnaire (Appendix 7) as a potential new instrument. While implicit leadership is important, the alignment of the importance and presence of these characteristics can be assessed. In the context of an emerging TU in Ireland, the findings indicate that the characteristics are very important/ essential from a respondent perspective, which suggests that this instrument could be a valuable addition when studying change leadership. Although this instrument was developed for the higher educational sector, it could also be tested in other sectors and further refined.

Through this research, a change leadership framework has been developed that can aid and inform theoretical understanding of future change leadership practice and research and help address associated complexity. Having identified the key change drivers in higher education (section 5.4) and viewed them through the conceptual framework, we have gained a better understanding of how these change drivers are causing the TU to react and adapt (section 6.2). This framework (Figure 6.1) also creates unique relationships and linkages between change drivers and culture, change leadership, the competing values framework (Cameron and Quinn, 2011) and complexity leadership (Uhl-Bien and Arena,

2017). These relationships within the framework can help leaders to understand, plan and implement change in a complex environment. New insights into change and its dynamics have been provided and the presence of complexity is better understood. Therefore, there is potential to build on this research and strengthen the synergies and insights between the different research fields of change, leadership, culture, change leadership and complexity leadership so that its current fragmented nature can be addressed. Through the change leadership framework, synergies have been uncovered which may improve our understanding of organisational complexity.

Contributions to policy

This study has identified the external key change drivers in higher education (section 5.4) and how these change drivers are causing the TU to react and adapt (section 6.2). Many of these drivers are policy driven, such as the National Strategy for Higher Education to 2030 and the TU Act 2018, also discussed in section 2.3 of Chapter two. The provision of resources is a key constraint identified in this study, which is negatively impacting change leadership and the TU formation processes. In addition to a lack of project and change management resources and skills, the lack of presence of change leadership characteristics were also discovered, which are putting more pressure on already stretched resources. Critical reflection is important for leaders so that they can challenge neoliberal influences (Ball, 2016) and assert pressure on those with power such as the government to provide adequate resources. Through collective strategic resistance, the flow of power can change direction and influence future policies as well as secure adequate resources to empower staff. Overall, this research adds weight to the urgent investment in resources and infrastructure in line with the recommendations previously discussed in the TURN report (2019). Furthermore, since this report, Covid-19 changed education significantly and has escalated the importance of digital infrastructure investment to remain competitive (Gelaidan et al. 2018).

From an equality and diversity perspective, gender disparity is discussed in section 2.4 and diversity also features within the conceptual framework. Although some progress is being made, where seven of twelve presidents are female (Clancy, 2023), findings from this study

(section 6.2) reinforces the importance of continued focus on this issue, as diversity reduces groupthink, is supportive of creativity and emergent change, and could potentially enable HEIs to adapt better to their environment.

Although the TURN report (2019) recommends significant investment in the new TUs, this investment alone may not be sufficient to allow TUs progress at pace. This study has revealed capability constraints in relation to staff and their empowerment, and restricted responsibility for research and engagement activities. In addition, the role of heads of department has been found to be very challenging and may be constraining capability development due to the multiple demands placed on them with limited resources. These findings support the OECD (2023a), who recommends overhauling academic structures and providing sufficient administrative structures and supports.

Contributions to practice

This study contributes to the emerging TU that was in focus for this research. The key external change drivers have been identified from this study that can help the TU gain a deeper understanding of its challenging environment. In addition, the organisational culture has been analysed which provided useful insights. While this study indicates a desire for a less hierarchical culture and more collaborative culture, these findings will be useful as the TU embarks on developing its future culture. By reviewing respondent perceptions of change and leadership, further cultural understandings have been provided. Despite resource constraints and increased activity due to the TU merger, this study found that staff are coping well, which is encouraging. Perceptions of gender balance initiatives have also been captured, which may help the TU strengthen in this area. These findings will be valuable as the new TU develops its first strategic plan.

In relation to leadership, this study has revealed that the change leadership characteristics are perceived as being very important/ essential at present. This includes fostering a change culture and holding trust, democracy, and inclusion central to everything, while dealing effectively with barriers and resistance. Strategy and tactical characteristics are also key where communication and consultation are of paramount importance, as well as dealing with barriers that may slow down change initiatives. There is a sense of urgency to finalise

the new strategic plan, and fill the current void associated with a vision that inspires staff for change. Developing relationships and capacity building are additional key themes identified for change leaders. Overall, this study has provided a useful assessment of change leadership that will be of value to leaders and other stakeholders to reflect upon.

This research also provides useful insights into leadership generally, where a distributed approach is common in the TU. It also highlights the importance of leadership activities being tailored to the unique context and culture that is present. Insights on recruitment and development have emerged that can help steer the new TU as it evolves and develops its capabilities. While findings indicate the importance of change leadership characteristics, the presence of these are not obvious. By assessing the greatest difference between the importance and presence of these characteristics for the emerging TU, the areas of focus could be prioritised accordingly so that there is greater alignment and stronger implicit leadership presence. Table 7.1 below has identified the top six characteristics that have the largest difference as well as their associated theme.

Table 7.1: Change leadership characteristics- mean importance and presence

Theme	Question	Importance Mean	Presence Mean	Delta
Strategy	Communicate and consult effectively so that any concerns are identified, and staff understand benefits of change.	3.64	2.27	1.36
Culture	Develop a culture of trust, democracy, and inclusion.	3.59	2.26	1.33
Capability	Ensure staff are sufficiently trained to enable them to embrace current and future changes.	3.53	2.25	1.29
Tactics	Identify and remove barriers that may slow down or prevent change.	3.36	2.07	1.28
Relationships	Reward and recognise staff for their contributions to change.	3.36	2.10	1.26
Capability	Provide adequate resources to facilitate and embed change.	3.49	2.26	1.23

Finally, the topic of change and its dynamics has been analysed (section 6.2) in this study which is of value to the emerging TU. Through the conceptual framework, a better understanding of change and its dynamics may be developed for TU staff. While top-down

operational leadership is dominant, more awareness is needed of the importance of creativity and entrepreneurial leadership as well as adaptability through enabling leadership. This would provide a broader perspective to leaders on how they can drive and facilitate change from many perspectives including from the top down as well as the bottom up.

With a similar history and contextual environment, findings from this research could be relevant to other Irish emerging TUs. Hence, useful insights for these TUs can be gained from this study in areas such as change drivers, context, and culture as well as change, change leadership and leadership development. The change leadership framework consolidates this research and can be a valuable tool for educational practitioners and leaders to help them deal with complexity and gain insights into the relationships of components relevant to leading change. In addition to new TUs, existing IOTs will find this research of interest. Furthermore, although the traditional universities have a different history and objectives, some value from this study can be gained so that they can reflect on their own position with regards to their context, change leadership, leadership development and change activities.

7.3 Research reflections

On entering the doctoral programme, my initial topic related to quality improvements within the HEI sector. However, having carried out a policy review of the performance frameworks, I realised that this was one of many challenges facing HEIs, so I decided to take a broader perspective and encompass all types of change within this research. Although this approach may have increased the complexity and breath of research, I felt the findings associated with change, culture and change leadership would be applicable and useful for all types of desired changes including quality improvement. Personally, this approach had the potential of being more valuable, as the research would be more transferrable with a broader appeal. As the timing of this study overlapped with the formation of the new TU, rich insights were provided on this transformational change as well as other key change drivers at play. Furthermore, focusing the research on the new TU allowed me the opportunity to gain in-depth knowledge about this new organisation I am employed in while

facilitating the creation of new relationships across its many campuses with research participants.

I found the structured approach of this doctorate in education very beneficial as it helped create the building blocks of learning in a systematic way to complete my doctoral thesis. The first two years facilitated an introduction to national education policy, a literature review on change and leadership in higher education and academic writing development. In addition, the interaction with academic staff, fellow students and researchers through workshops, presentations and publications allowed my thinking to be further refined. Furthermore, reflective practice was promoted throughout the four years, which created time to think about the learning arising from the doctoral programme and examine how it has impacted me personally as a practitioner as well as a researcher. This reflective process stimulated a strong interest in personal development and encouraged me to develop professionally through formalised coaching. As my understanding of the higher educational context, culture and leadership evolved, the coaching process facilitated this learning to be applied to me personally, as a practitioner. While improving self-awareness, I applied this knowledge to my role as Head of Department and other roles that I took on, which reinforced the learning further.

With my technical background in project management, coupled with my experience in leading change in higher education, I was exposed to the complex challenges and cultures present in HEIs, and the importance of involvement of all staff in change initiatives. Hence, I felt that interpreting an organisation as a complex system through complexity theory was a valuable approach and would lead to pragmatic insights. This holistic approach resulted in both academic and support staff being involved in this study. Aiming to generate instrumental and pragmatic findings, a mixed methods approach was chosen, and I feel this approach effectively addressed the research gaps and research questions of this study. In addition, I had an academic curiosity in using both qualitative and quantitative tools and felt that having experience of both approaches would be invaluable for future research activities I may embark on. With an openness to new technology, I was keen to utilise digital tools and software to help manage and analyse the vast amounts qualitative and quantitative data arising from this research. Although Endnote, Nvivo and SPSS took significant time and

effort to learn, their use resulted in effective literature and data management and analysis. While dealing with this data, I realised the complexity of social science research and its non-linear, hierarchical characteristics. I also realised the relevance of power as a way of understanding how change can happen through people. Taking an interpretive ontological position was relevant due to the predominance of qualitative data.

Given the diversity of topics covered in this study, one of the greatest challenges academically was to finalise its scope in terms of research breadth, while taking a pragmatic approach to the depth required. The influence of context emerged early in this study and the topic of culture grew in importance throughout the research stages. As very little connection was found between the key research topics of change and leadership as well as culture and complexity, significant time was taken to read the vast literature and synthesise it so that a suitable conceptual framework could be developed. Creating this framework was a personal breakthrough as it identified strong synergies between complexity leadership and the competing values framework, while also encompassing change leadership and context and cultural considerations. The use of this conceptual framework as a conceptual tool for interpreting findings as well as a diagnostic tool has helped unravel the complexities associated with this study. My personal understanding of all concepts and their interrelationships has been strengthened and I feel better equipped to understand how organisations can evolve through change and associated leadership and how influencing culture can assist in the process. I think this has been of great benefit to my personal leadership characteristics as I actively encounter situations in practice that can be guided by this new knowledge. This professional doctorate has facilitated learning through careful re-examination of my personal values and purposes through participative learning and practice knowledge (Forbes, 2008). For example, understanding the importance of critical reflection (Ball, 2016) and that resistance has a part to play in power dynamics and personal autonomy (Luby, 2019) has broadened my understanding of it as a positive, as well as a negative influence to change.

The most enjoyable aspect of this thesis related to the field work and the interaction with management staff across the three main TU campuses. The focus group discussions and the interview with the president provided me with new perspectives on culture, change and

leadership and new insights into the associated challenges from multiple perspectives. This knowledge has provided me with a deep appreciation for the new TU and the broader issues being faced. As a member of various internal university committees, it is very fulfilling to provide insights from this doctoral journey and contribute to the future direction of the emerging TU.

In terms of the doctoral process, a key learning was the significant iterative and developmental nature of the thesis from a few perspectives. The first was the evolution of research questions which developed iteratively because of insights gained through literature, policy, field work and the analysis. In addition, it was challenging to develop a final conceptual framework for this study, which led to initial findings being reviewed to gain a deeper understanding of the thesis overall, prior to the conceptual framework being finalised. As well as the research questions and the conceptual framework evolving, so too were the various thesis chapters during the write up phase. I found that each chapter was closely related to others, which meant that the finalising of chapters required an iterative and concurrent process to allow for them to build upon each other with flow. As personal academic writing skills were honed through this process, this also led to further iteration across the various chapters. Although the concept of power was generally absent in the literature review, by considering power in this study, additional understanding has been gained in terms of how it flows through relationships and how beneficial empowering staff is to both staff and to leaders.

The biggest challenge personally in this doctoral undertaking was dealing with the competing demands of family life and work, while dedicating significant time and energy to my doctoral studies. While keeping mentally tuned through proper exercise, diet, and sleep, this balance was maintained through discipline, prioritisation, and personal sacrifice. With three active sons, family life is hectic, but my wife and family were very understanding and supportive towards my doctoral journey, despite its all-consuming nature. The Covid pandemic was a significant disruption that occurred during my doctorate. This significant change to normal life reinforced the importance of my research topic of change leadership and the need for people and organisations to be equipped to deal with changes in an agile manner, so that they can evolve.

The most academically fulfilling milestones of this doctorate initiated with the literature review and the identification of key themes. Through additional reading, the next most fulfilling milestone was the synthesis of change leadership characteristics and themes. Significant time was taken to synthesise the literature in this study so that a suitable conceptual framework could be developed, which created relationships between the key themes of this study. Having developed a robust methodology, gathered and analysed rich field data and answered the research questions, I was able to reflect on the overall thesis and gain further insights. As findings highlighted the importance of change leadership characteristics, it was satisfying that these characteristics were valuable to this and future research. It was also very rewarding to utilise the conceptual framework to provide theoretical insights into this study and refine it further for future application. This framework turned out to be a significant component of this research. Not only did it help interpret findings conceptually, but it also has strong potential to be used as a diagnostic tool as well as a future roadmap for researching change leadership.

7.4 Limitations of study

Despite the rewarding nature of doctoral studies, some limitations were required because of the programme duration, thesis word count limitations and the choices on research methods and topics. To get the required depth of understanding within a complex environment, the scope of this study was limited to three IOTs that were merging to form one TU that was at the early stages of formation. Therefore, it does not address other IOTs, TUs, traditional universities or private HEIs or take a longitudinal approach to TU development. Although this study focuses on culture and change leadership for both academic and support staff at all levels in a general sense, it does not fully separate or stratify findings for both categories of leader, or between middle and senior management and different academic faculties. As the conceptual framework encompasses diverse teams of staff interacting at all levels to facilitate successful change, detailed segmentation was not within the scope of this study.

Although this study utilised multiple stages and research methods, the various research stages had limitations for operational reasons. For example, stage 1 was limited to the

review of the TU submission document, while stage 2 was limited to one focus group with management staff for each of the three IOTs. With specific focus on leadership, the OCAI cultural assessment within stage 2 was limited to the leadership domain and was restricted to participants of the three focus groups of management staff and the president.

Within this research, my own positionality was acknowledged and reflected upon. Although I was a head of department within one of the three IOTs, which provided an ease of access to participants, being in this role coupled with my personal experiences and beliefs resulted in personal preconceptions entering this research. Despite reflection on ethical and positionality considerations as an inside researcher, subjective bias throughout this study is likely, which has influenced its overall direction and interpretation of findings.

Despite these various limitations, it is hoped that this study will make a valuable contribution to knowledge, practical and policy and that the final conceptual framework will aid future research and practice in this area.

7.5 Recommendations

Given the limitations previously outlined as well as the implications from the findings and insights from this research, various recommendations will now be reviewed. These have been broken up into recommendations for policy and practice.

Recommendations for policy

1. Recommendations from the TURN report (2018) should be carefully implemented. Immediate priority areas identified in this research include increasing the overall resource funding, digital infrastructure, capital investment, research support initiatives and maintaining and growing supports for project and change management.
2. Having identified a lack of change leadership and leadership training, this should also feature as a future policy development area. Apart from emerging female leadership training, no formal sector wide leadership training is available for all management and leadership staff and should be addressed as a priority.
3. As progress remains slow in some senior academic positions with regards to gender balance, this study has shown the importance of diversity for emergent change and

preventing groupthink. Future policy will need to look at accelerating gender equality while also being mindful of recruitment processes. Policy should also promote the importance and benefits of diversity for change leadership identified in this study, and initiate approaches to fostering a supportive culture.

4. The influence of performance frameworks has been discussed in this study, while previous frameworks with up to 50 KPIs were noted. In the context of TUs undergoing significant change in relation to organisational structures and investment in infrastructure and recruitment, it is recommended to provide sufficient space and time to TUs and their leadership team to establish themselves. This is important as new TUs develop their own cultures and identities, which will be an important foundation for future strategic planning, growth, and engagement. Hence, performance frameworks need to take this into account and could be rationalised to limit granularization and reduce KPIs if possible, while minimising administrative burdens on the leadership team at this critical TU formation phase. Sustainability, diversity, and internationalisation should continue to be important components of these frameworks.
5. Although it may be difficult to get buy in from the TUI and other stakeholders, the OECD report (2023a) recommendations should be strongly considered for implementation. In addition, developing an agreed workload allocation model, which includes research and engagement activities will also be important for these changes to become effective.
6. This study found that culture is a key component to HEIs and how they operate. National policy should be adjusted to promote a more collaborative, inclusive culture between HEIs and within HEIs, and innovations should be shared by facilitating enabling leadership and alignment through operational leadership activities. Care should be taken at policy level to restrict hierarchical changes where feasible so that space can be created to foster a more creative and collaborative culture. This would enable HEIs to be more responsive to their environment and improve their competitive strengths in an increasingly globalised environment.

Recommendations for practice

The emerging TU

7. While evidence of historical resource constraints in the Irish HEIs was discovered, this is being compounded by TU merging activities. Therefore, the TU in conjunction with THEA need to continue to lobby for increased support and funding to fully address the recommendations of the TURN report (2019) and the OECD report (2023a). Through critical reflection and resistance in some cases, HEIs need to actively provide feedback to policymakers and influence their direction so that education remains central to activities and that resources are provided to empower staff sufficiently to address overall objectives.
8. This study has demonstrated the importance of culture for leading change. While aiming to reduce hierarchy and promote a more collaborative culture, the TU could tap into the unique historical cultural attributes of each of the previous IOTs to identify practices that would help achieve this new culture. Doing so would help improve the balance between top down and bottom-up approaches where staff are more empowered to change and create a more supportive change culture and a more agile TU.
9. This study has revealed both the importance and presence of change leadership characteristics for the TU. These data can be used to identify the biggest skills deficits that need to be addressed as well as use the change leadership characteristics to help initiate and develop leadership training and development. In conjunction with the change leadership framework, the TU should prioritise such leadership training so that existing and future leaders are equipped with sufficient tools to influence a change culture and to lead change in a complex environment.
10. When practicing and developing the change leadership characteristics identified in this study, formal and influential leaders need to realise the importance of facilitating both top down and bottom-up changes and create a supportive change culture. The change leadership framework is a valuable tool to help conceptualise such change dynamics.

Other Irish TUs and HEIs

11. While the previous recommendations may be very relevant to other emerging TUs as they have similar histories and contexts, other HEIs in Ireland may also benefit from this study, so that they can identify opportunities for improving how they lead and facilitate change within a complex environment.

7.6 Areas for future study

While this study reveals interesting cultural insights for an emerging TU, the full OCAI cultural assessment tool could be used on the new TU and include all staff to further validate these insights. Cultural research across the broader HEI system in Ireland would also be useful, so that a more general perspective is gained, while also facilitating comparisons between the older universities and the new TUs. Cultural comparisons with other countries would be interesting, especially with Europe from where many common policy influences emerge.

Leadership recruitment and development are important to the field of change leadership. Although these topics emerged as themes from the systematic literature review and were discussed in focus groups, they were not focused upon in this research and could warrant further study. Given the lack of evidence of any nationwide leadership training for HEI staff, and the lack of change leadership characteristics identified from this study, research in this area would be very timely. Incorporated into future leadership recruitment research could include the influence of policy drivers designed to address gender diversity.

Although fully stratifying findings by participant demographics was outside of the scope of this study, additional analysis of both qualitative and quantitative data could reveal additional insights for this study at a sub-component level which would deepen the appreciation of this complex social science study. For example, detailed differences in change and leadership perceptions as well as change leadership characteristics could be obtained through cross tabulation by IOT, role, age and faculty. Although this analysis would take time, insights gained from it could be valuable.

While this study utilised a pragmatic paradigm to address specific research gaps relating to actionable findings for change leaders, alternative philosophical perspectives and theoretical frameworks could be taken for future study to get different insights. Although the instrumental domain of leadership was a focus in this study, alternative views such as humanistic, critical, and philosophical domains would also be useful (Gunter, 2016). Such research would complement this study and provide additional perspectives into the field of change leadership, which needs further consolidation of knowledge.

Additional issues have been identified through this research that are worthy of further investigation. Although this study has revealed the presence of distributed leadership which indicates a bottom-up approach to change, a hierarchical culture is present, which suggests a top-down approach also. To gain a deeper understanding of change and the leadership approaches, it is recommended to examine change, leadership, and culture at different organisational levels and for different changes. For example, following Higgs and Rowland (2005) who categorised change into the contextual variables of history, scope, complexity, magnitude, time scale, source and team/ individually led, similar research would be useful in Irish HEIs to provide detailed insights into change and its dynamics at various organisational levels. This research could further inform the change leadership framework.

7.7 Conclusion

In addition to addressing the research gaps and questions, various contributions arising from this research have been reviewed. From a knowledge perspective, the systematic literature review was published to share a synthesis of recent literature in this area. As well as creating new knowledge using existing instruments such as the OCAI cultural assessment (Cameron and Quinn, 2011) and identifying perceptions on change and leadership (Devecchi et al. 2018), a new instrument has been created regarding the questionnaire on change leadership characteristics, which can be used by future researchers and practitioners. The change leadership framework is also a positive addition from a theoretical and practice perspective and can provide insights into the relationships between external change drives, organisational leadership, culture, and change. This framework has been demonstrated as a

useful diagnostic tool and has potential to provide some direction for future research in change leadership.

With regards to policy contributions, this study supports the drive for equality and diversity and the investment recommendations contained in the TURN report (2018) and OECD report (2023a). It highlights that leaders should be critically reflective in relation to change drivers and avail of resistance to influence policy and resource allocations. This study has contributed to practice, especially the emerging TU in question, where its change drivers, culture, staff perceptions, challenges and change leadership characteristics are fully explored. These findings are also valuable to other emerging TUs and may be of interest to traditional universities in Ireland.

Having reflected on my doctoral journey and the evolution of my topic, I found the structured doctoral programme very beneficial, and the use of both qualitative and quantitative research methods rewarding. My personal leadership skills have also been improved through the participative learning process of this professional doctorate and is synthesised in the change leadership framework for future use. While limitations have been discussed for this study, 11 recommendations are presented from a policy and practice perspective and areas for future research are outlined.

This study has provided many key insights into the complexity of change and leadership in higher education and how stakeholders experience and value change leadership. It has made contributions and recommendations to both knowledge, policy, and practice. Strong relationships between change drivers, culture, change leadership, change and complexity have been found. As complexity and the rate of change increases for higher education in the years ahead, the conceptual framework coupled with the change leadership characteristics arising from this study, will be a useful starting point for future study into this under-researched area. Furthermore, the framework can assist educational and leadership practice through its use as a diagnostic tool by helping to address the complexity associated with leading change in higher education.

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Appendices

Appendix 1: Systematic literature review articles

No.	Authors	Title	Year	Source title	Knowledge Domain	Research Methodology	Relevant Research Findings
1	Burrell D.N., Rahim E.	An applied application of contemporary strategic leadership analysis in higher education for managing organizational environmental adaptation and change	2010	International Journal of Knowledge, Culture and Change Management	Instrumental	Qualitative literature review justifying conceptual model application from business to academia.	Systems thinking should be utilised by HE leadership to have responsive, effective strategic management. It facilitates responsiveness to the external environment and promotes change.
2	Choi S., Holmberg I., Löwstedt J., Brommels M.	Executive management in radical change-The case of the Karolinska University Hospital merger	2011	Scandinavian Journal of Management	Humanistic	Qualitative case study	Top-down change management is insufficient to incorporate buy-in to change at all levels of organisation due to challenges with professionalism of staff and their clash with managerialism and false sense of security at top level management merger.
3	Chow A.S.	One Educational Technology Colleague's Journey from Dotcom Leadership to University E-Learning Systems Leadership: Merging Design Principles, Systemic Change and Leadership Thinking	2013	TechTrends	Humanistic	Qualitative case study	Systems thinking cannot be applied without focusing on human element of change and strong buy in at early stages, taking time to facilitate this is important. Technology is another reason HE needs to respond to change.

No.	Authors	Title	Year	Source title	Knowledge Domain	Research Methodology	Relevant Research Findings
4	Collins, James P.	Leadership and Change in Twenty-First Century Higher Education	2014	Biosciences	Critical	Descriptive	HE needs good leaders- leadership skills don't always emerge from academic leaders with strong research output. Therefore, HE should be cognisant of leadership skills during recruitment and offer leadership training at all levels to foster these important skills, which enable change.
5	Dahlvig J.E.	Flourishing for the Common Good: Positive Leadership in Christian Higher Education During Times of Change	2018	Christian Higher Education	Philosophical/ Humanistic/ Instrumental	Qualitative	The 'Common Good' is less present in HE strategies. There is a need to address issues such as climate change, and sustainability for the benefit of everyone. Organisational Citizenship Behaviour (OCB) would promote staff to perform more, and positive leadership is effective in creating a 'positive spiral' of staff doing more for common good and for the organisation generally. Having a growth mindset is a key enabler to supporting change.
6	Dobi T.	Major changes to leadership, management, and organizational structure: The case of the European University of Tirana	2012	International Journal of Knowledge, Culture and Change Management	Humanistic/ Instrumental	Quantitative survey with 89 respondents reflecting on impact of new management structure	Distributed leadership to Departments allows for rapid response to changes and enhances student involvement, communication, and input into the management of HE.

No.	Authors	Title	Year	Source title	Knowledge Domain	Research Methodology	Relevant Research Findings
7	Drew G.	Issues and challenges in higher education leadership: Engaging for change	2010	Australian Educational Researcher	Humanistic	Qualitative survey with 18 managers	Survey concurs with general literature that people are central to facilitating change and that change is key to leadership. Challenges include balancing quality versus efficiency in the context of complex structures and stakeholders.
8	Edwards A.K., Raheem K., Dampson D.G.	Strategic thinking and strategic leadership for change: Lessons for technical universities in Ghana	2018	Malaysian Online Journal of Educational Management	Humanistic/ Instrumental	Qualitative survey	Leadership should embrace strategic thinking, which is more responsive and enterprising than strategic management. Leaders should utilise 'brain power' of staff to get best ideas and creative ownership from them to facilitate strategic change. Entrepreneurship and scholarship are two areas of relevance for HE that require leadership, due to their strong linkage with industry via STEM centres of excellence and their associated activities.
9	Gelaidan H.M., Al-Swidi A., Mabkhot H.A.	Employee Readiness for Change in Public Higher Education Institutions: Examining the Joint Effect of Leadership Behavior and Emotional Intelligence	2018	International Journal of Public Administration	Humanistic	Quantitative	Leadership behaviour and emotional intelligence (EI) have positive effects on employees' readiness for change. Emotionally intelligent employees with effective leaders are more likely to be open to change. In addition, the effects of leadership behaviour and EI on employees' readiness for change are strong in both low and high levels of organizational commitment. Incremental change is the best approach for acceptance.

No.	Authors	Title	Year	Source title	Knowledge Domain	Research Methodology	Relevant Research Findings
10	Howells J.R.L., Karataş-Özkan M., Yavuz Ç., Atiq M.	University management and organisational change: A dynamic institutional perspective	2014	Cambridge Journal of Regions, Economy, and Society	Humanistic	Qualitative	Leaders enable Vision and are part of its development with staff. Pluralistic institutes with many autonomous departments need to be aligned to common purpose and direction, through leadership that deals with tensions/ divergent demands. Strategic Collaboration between other HEIs is key to growth. Innovation applies to overall business model underpinning university operations. Devolved / distributed leadership helps address pluralistic HEI structures to facilitate change.
11	Jones S., Harvey M.	A distributed leadership change process model for higher education	2017	Journal of Higher Education Policy and Management	Critical/ Humanistic	Qualitative projects- 24 on DL.	Distributed Leadership challenges managerial organisational structures and enables better participation, collaboration, and discussion with broad stakeholders to enable effective and timely changes in HE.
12	Kohtamäki V.	Academic leadership and university reform-guided management changes in Finland	2019	Journal of Higher Education Policy and Management	Humanistic	Quantitative survey with 54 respondents	Mid-level managers are key players in HE and incrementally change culture to include new managerial structures, while working with people, building trust and relationships, and focusing on resources for survival. Key resources are financial, human, and power (via networks and relationships across the organisation).

No.	Authors	Title	Year	Source title	Knowledge Domain	Research Methodology	Relevant Research Findings
13	Lazaridou, A.	Reinventing a university principal preparation programme: complexity, change, and leadership	2019	International Journal of Leadership in Education	Humanistic	Qualitative case study	Multiple types of leadership exist at the same time to facilitate changes. Complexity theory is useful for assessing complex HE organisations. Change theory suggests change is a diffusing process
14	Rasmussen B.	From Collegial Organization to Strategic Management of Resources: Changes in Recruitment in a Norwegian University	2015	SAGE Open	Critical	Qualitative case study	Managerialism and New Public Management can lead to issues such as recruitment of highly published staff but who cannot teach due having a specialised, narrow field.
15	Said H., Ahmad I., Mustafa M.S., Ghani F.A.	Role of campus leadership in managing change and challenges of internationalization of higher education	2015	Mediterranean Journal of Social Sciences	Critical	Qualitative literature	Internationalisation is a key component to the experience of learners as we live in a globalised world. Challenges exist in relation to incorporating this into academia due to the capacity to change, among other drivers.
16	Tjeldvoll A.	Change leadership in universities: The Confucian dimension	2011	Journal of Higher Education Policy and Management	Philosophical/ Humanistic	Qualitative literature review	Although new Service orientated, external looking universities are doing well internationally, the traditional university in East Asia may have advantages of retaining hierarchal structure with leaders who have authority to give instruction yet have a collegial approach to decision making also.

No.	Authors	Title	Year	Source title	Knowledge Domain	Research Methodology	Relevant Research Findings
17	Waisy O.H., Wei C.C.	Transformational leadership and affective commitment to change: The roles of readiness for change and type of university	2020	International Journal of Innovation, Creativity and Change	Humanistic	Quantitative	Transformational leadership positively impacts affective commitment to change, and readiness for change mediates the relationship between these two variables. In addition, the type of university (Public or Private) moderates the relationship between transformational leadership and affective commitment to change.
18	Waring M.	Management and leadership in UK universities: exploring the possibilities of change	2017	Journal of Higher Education Policy and Management	Critical	Qualitative case study	The Emerging Leadership model should be considered to replace outdated bureaucratic structures, which are not adequate to cope with complex and changing educational environment. This would increase the voice of employee and increase buy in to changes, improve student responsiveness so that organisations can respond quicker and better to changes. Partnership with unions and having them on Governing Body is instrumental in collaborating and enabling progress. Training for leaders is a gap and could be done internally. Incremental changes may be best approach to minimise resistance. HRM is outdated and should be replaced by trust-based models.
19	Warwick P.	An integrated leadership model for leading education for sustainability in higher education and the vital role of students as change agents	2016	Management in Education	Philosophical	Qualitative case study	Top down and bottom up, student led activities are needed to change curriculum to reflect the important theme of sustainability and common good.

No.	Authors	Title	Year	Source title	Knowledge Domain	Research Methodology	Relevant Research Findings
20	Mukaram et al.	Can adaptive–academic leadership duo make universities ready for change? Evidence from higher education institutions in Pakistan in the light of COVID-19	2021	Management Research Review	Humanistic	Quantitative survey	Covid-19 has reiterated the importance of change and leadership. Institutes that had invested in digital systems had enhanced organisational learning capability and survived turbulence. Adaptive leadership is the practice of mobilising people to tackle through challenges and thrive. Findings are that both academic leadership and adaptive leadership under the mediator of organisational learning capability contributed positively to organisational readiness for change in HEIs.
21	Gebretsadik DM.	An Exploration of Change Leadership at Public Higher Education Institutions in Ethiopia	2022	SAGE Open	Humanistic	Quantitative Survey	Survey used to assess contribution of mid to lower academic level leadership in bringing about change readiness in the university. (180 academic staff from 5 colleges and one institute). It found that change leadership has a strong relationship with change readiness of the academic staff of the university. It recommends leaders to show more commitment and provide supports needed for smooth implementation of change.

No.	Authors	Title	Year	Source title	Knowledge Domain	Research Methodology	Relevant Research Findings
22	Patton W.	The many faces of leadership: leading people and change in Australian higher education	2021	Journal of Educational Administration and History	Humanistic	Descriptive	This self-reflective case study from an experienced academic suggests that leadership expertise is developmental and evolutionary, requiring continual refinement to develop own skills and perspective.
23	Lagesen, AV. & Suboticki I.	Uncertain, collective, and heroic leadership approaches to gender balance change among local leaders in academia	2022	Journal of Higher Education Policy and Management	Critical	Qualitative	Gender imbalance is an ongoing problem at the professor level in academia. Department heads in Norway take on a lot of ownership for gender balance change and divided their leadership approaches regarding gender balance into uncertain, collegial, and heroic areas. There is an unexploited potential for HoDs taking a leading role in gender balance change if they are granted more autonomy and more support from above leadership.
24	O'Connor, Pat	Creating gendered change in Irish higher education: is managerial leadership up to the task?	2020	Irish Educational Studies	Critical	Qualitative	This paper suggests that the explanation for the slow pace of change in the gender profile of the professoriate lies in the gender awareness of managerial leadership.

No.	Authors	Title	Year	Source title	Knowledge Domain	Research Methodology	Relevant Research Findings
25	Whittaker Joseph A., Montgomery Beronda, L.	Advancing a cultural change agenda in higher education: issues and values related to reimagining academic leadership	2022	Discover sustainability	Critical	Descriptive	'This theoretical paper supports a values-based leadership approaches on collective institutional or sustainability-centred pursuits. Paper suggests four modes to support innovation and collective efforts including shared leadership; creative or innovative leadership; qualitative leadership that is data-driven and includes evidence-based innovation; and dynamic leadership.
26	Ghobad Ramezani, Shoaleh Bigdeli, Yadolah Zarezadeh , Zohreh Sohrabi	Identification of change leadership dimensions and components in medical science education to move toward the third-generation universities: A qualitative study	2022	Journal of Education and Health Promotion	Instrumental	Qualitative	This qualitative study using semi structured interviews on associate professors (18) examines dimensions and components of change leadership. The main categories included change leadership roles and characteristics, preparation and providing the context for change, and change leadership process and path.
27	Stina Powell & Ann Grubbström	Leading gender equality change in higher education – the case of forestry	2023	The Journal of Agricultural Education and Extension	Critical	Qualitative	This qualitative paper examines the issue of gender equality in forestry education in Sweden. Findings broaden the definition of leadership beyond formal leaders and identify the strong influence of informal leaders such as teachers and practitioners to address gender equality.

No.	Authors	Title	Year	Source title	Knowledge Domain	Research Methodology	Relevant Research Findings
28	Christi Edge, Elizabeth Monske, Stacy Boyer-Davis, Steven VandenAvond & Brad Hamel	Leading University Change: A Case Study of Meaning-Making and Implementing Online Learning Quality Standards	2021	American Journal of Distance Education	Humanistic	Qualitative	Reviews a change framework associated with the introduction of online learning quality standards. Using a Kotter model, the study shows that the enactment of change began shifting the university culture. The study highlights how the leadership team worked within and across a dual operating system representing the hierarchical structure of the university and the networked system for fostering innovation and change.
29	Alex Ronald Mwangu	Middle-level Academics as Institutional Managers: A Study on Leadership and Organisational Change at a Ugandan University	2021	Council for the Development of Social Science Research in Africa	Instrumental	Qualitative	This paper focuses on academic middle managers and how they conceptualise leadership and the skills needed. Semi structured interviews revealed the department chair major roles and identified their struggles associated with limited capacity building and mentoring initiatives for leadership which put more strain on the department chairs.
30	Yasser F. Hendawy Al-Mahdy a,b, Aisha S. A. Al-Harhi and Nesren Salah El-Din	The effect of leadership support on commitment to change and turnover intention in Omani higher education	2022	Journal of Further and Higher Education	Philosophical	Quantitative	This paper focuses on a government university in Oman and surveys 221 faculty members. Findings showed that leadership support greatly contributes to low faculty turnover intention and improves faculty's commitment to accreditation, which has a significant and direct impact on their turnover intention. Therefore, university-level leadership support, both directly and indirectly, shapes faculty's commitment to change

Appendix 2: Change leadership characteristics

Change Leadership Characteristic	Higgs & Rowland (2000)	(Gilley, 2005)	Fullan (2020)	Magsaysay & Hechanova (2017)	Guerrero et al. (2018)	Burke & Litwin (1992)	Burnes (2020)	Kotter (2012)
Create the case for change and secure credible support from senior management.	1. Change Initiation (CIN); ability to create the case for change and secure credible sponsorship.	Visionary: Challenge status quo, articulate vision, accept ambiguity and risk.	Understanding change	Strategic and Technical: proactive, open-minded, creative, action orientated	Building Capacity, Staff competencies, Training, Coaching for change	Feedback loops	Increase push forces	1: Establishing a sense of urgency
Scope out the impact and sustainability of the change.	2. Change Impact (CIM); ability to scope the breadth, depth, sustainability and returns of a change	Staff must be skilled in planning, implementing, and monitoring change	Understanding change	Strategic and technical: Analytical, knowledgeable	Building Capacity, Staff competencies, Training, Coaching for change	Strategy	Increase push forces	1: Establishing a sense of urgency
Possess the required knowledge and application of change theories, tools, and processes.	8. Change Technology (CT); knowledge, generation and skilful application of change theories, tools, and processes	Staff must be skilled in planning, implementing, and monitoring change	Understanding change	Strategic change technical: Analytical, knowledgeable	Building Capacity, Staff competencies, Training, Coaching for change	Strategy	Knowledge sharing	7: Consolidating gains and producing more change
Provide adequate resources to facilitate and embed change.	5. Change Learning (CLE); ability to scan, reflect and identify learning and ensure insights are used to develop individual, group and organisational capabilities	Provide resources for change	Understanding change	Social: supportive	Building Capacity, Staff competencies, Training, Coaching for change	Management Practices	Increase push forces	2: Creating a guiding coalition

Change Leadership Characteristic	Higgs & Rowland (2000)	(Gilley, 2005)	Fullan (2020)	Magsaysay & Hechanova (2017)	Guerrero et al. (2018)	Burke & Litwin (1992)	Burnes (2020)	Kotter (2012)
Share knowledge and invest in continuous professional development to strengthen individual, group and organisational capabilities.	5. Change Learning (CLE); ability to scan, reflect and identify learning and ensure insights are used to develop individual, group and organisational capabilities	Enhance own skills, create a culture of change, encourage creativity and innovation.	Knowledge Building and Deep Learning		Building Capacity, Staff competencies, Training, Coaching for change	Task requirements and individual skills/ abilities	Knowledge sharing	7: Consolidating gains and producing more change
Ensure staff are sufficiently trained to enable them to embrace current and future changes.	5. Change Learning (CLE); ability to scan, reflect and identify learning and ensure insights are used to develop individual, group and organisational capabilities	Share information with those impacted by change	Knowledge Building and Deep Learning		Building Capacity, Staff competencies, Training, Coaching for change	Task requirements and individual skills/ abilities	Knowledge sharing	7: Consolidating gains and producing more change
Put in place procedures and systems to embed the change into the organisation.			Knowledge Building and Deep Learning	Execution: drives execution and accountability	Building Capacity, Staff competencies, Training, Coaching for change	Systems	Refreeze	8 institutionalising new approaches.
Delegate appropriate responsibility.		Staff must be skilled in planning, implementing, and monitoring change	Knowledge Building and Deep Learning		Building Capacity, Staff competencies, Training, Coaching for change	Management Practices	Increase push forces	2: Creating a guiding coalition; 5: Empowering broad-based action

Change Leadership Characteristic	Higgs & Rowland (2000)	(Gilley, 2005)	Fullan (2020)	Magsaysay & Hechanova (2017)	Guerrero et al. (2018)	Burke & Litwin (1992)	Burnes (2020)	Kotter (2012)
Accept that conflict is part of the change process and resolve it effectively in a constructive way.		Anticipate and address personal problems and conflict.	Relationships	Resilience: Composed under pressure, not emotional or sensitive		Culture, individual needs, and values	Democratic approach,	5: Empowering broad-based action
Encourage creativity and innovation and support a 'no blame' culture.		Encourage creativity and innovation	Knowledge Building and Deep Learning	Strategic and technical: Innovative and creative.		Culture, motivation	Increase push forces	5: Empowering broad-based action; 8: Anchoring new approaches in the culture
Develop a culture of trust, democracy, and inclusion.	3. Change Facilitation (CF); ability to help others, through effective facilitation, to gain insight into the human dynamics of change and to develop the confidence to achieve the change goals.	Create a culture of change, involve others	Relationships	Social: Shows trust in people, people orientated, participatory		Culture, individual needs, and values	Democratic approach,	
Be committed to achieving the change through integrity and courage, while maintaining openness and persistence.		Own the change publicly, demonstrate active involvement in change process, Model behaviour	Relationships, energy, hope, enthusiasm	Strategic and technical: Open minded. Execution: Persuasive, strong willed. Character: credible/ respected.		Culture, individual needs, and values	Democratic approach,	7: Consolidating gains and producing more change

Change Leadership Characteristic	Higgs & Rowland (2000)	(Gilley, 2005)	Fullan (2020)	Magsaysay & Hechanova (2017)	Guerrero et al. (2018)	Burke & Litwin (1992)	Burnes (2020)	Kotter (2012)
Build a credible team from diverse backgrounds across the organisation, to drive the change.	3. Change Facilitation (CF); ability to help others, through effective facilitation, to gain insight into the human dynamics of change and to develop the confidence to achieve the change goals.	Sell the change, inspire, energise, and involve others.	Relationships	Social: Shows trust in people, people orientated, participatory. Execution: effective coach/ mentor	Building Capacity, Staff competencies, Training, Coaching for change	Management Practices	Employee involvement, democratic approach, knowledge sharing	2: Creating a guiding coalition; 5: Empowering broad-based action
Involve staff from all levels in the change process from early on.	3. Change Facilitation (CF); ability to help others, through effective facilitation, to gain insight into the human dynamics of change and to develop the confidence to achieve the change goals.	Involve employees at all levels of the organisation in the change process.	Relationships	Social: Shows trust in people, people orientated, participatory. Execution: effective coach/ mentor		Structure	Employee involvement	2: Creating a guiding coalition; 4: Communicating the change vision
Develop and maintain relationships with staff and other stakeholders.	3. Change Facilitation (CF); ability to help others, through effective facilitation, to gain insight into the human dynamics of change and to develop the confidence to achieve the change goals.	Anticipate and address personal problems and conflict. Deal with employees and their reactions individually	Relationships	Social: Shows trust in people, people orientated, participatory. Execution: effective coach/ mentor		Work Unit Climate	democratic approach,	2: Creating a guiding coalition; 5: Empowering broad-based action

Change Leadership Characteristic	Higgs & Rowland (2000)	(Gilley, 2005)	Fullan (2020)	Magsaysay & Hechanova (2017)	Guerrero et al. (2018)	Burke & Litwin (1992)	Burnes (2020)	Kotter (2012)
Reward and recognise staff for their contributions to change.		Recognise and reward the right things	Relationships			Motivation	Increase push forces	6: Generating short term wins
Celebrate short term and long-term wins/successes.		Celebrate short and long-term wins.	Relationships			Motivation	Increase push forces	6: Generating short term wins
Understand that change can be complex and not straightforward.	4. Change Leadership (CL); ability to influence and enthuse others, through personal advocacy, vision, and drive, and to access resources to build a solid platform for change.	Understand that change is immensely complex	Understanding change	Strategic and technical: Analytical, knowledgeable	Goal framing (clear goal, rationale, clear direction)	Leadership, Mission & Strategy	Field theory- increase push forces, reduce barriers to change, iteration, reflection/ learning	2: Creating a guiding coalition; 3: Developing a vision and strategy
Establish a clear vision for the change.	4. Change Leadership (CL); ability to influence and enthuse others, through personal advocacy, vision, and drive, and to access resources to build a solid platform for change.	Establish a vision for change	Moral Purpose	Strategic and Technical: Strategic visionary	Goal framing (clear goal, rationale, clear direction)	Leadership, Mission & Strategy	Increase push forces	3: Developing a vision and strategy
Inspire individuals across the organisation to accept that change is needed.	4. Change Leadership (CL); ability to influence and enthuse others, through personal advocacy, vision, and drive, and to access resources to build a solid platform for change.	Energise and involve others, build a guiding coalition for the change.	Moral Purpose	Strategic and Technical: inspiring, persuasive	Goal framing (clear goal, rationale, clear direction)	Leadership	Increase push forces	1 Urgency; 4: Communicating the change vision

Change Leadership Characteristic	Higgs & Rowland (2000)	(Gilley, 2005)	Fullan (2020)	Magsaysay & Hechanova (2017)	Guerrero et al. (2018)	Burke & Litwin (1992)	Burnes (2020)	Kotter (2012)
Communicate and consult effectively so that any concerns are identified, and staff understand benefits of change.	4. Change Leadership (CL); ability to influence and enthuse others, through personal advocacy, vision, and drive, and to access resources to build a solid platform for change.	Communicate, communicate, communicate	Energy, hope, enthusiasm	Social: effective communicator, empathetic	Goal framing (clear goal, rationale, clear direction)	Leadership	Increase push forces	4: Communicating the change vision; 5: Empowering broad-based action
Develop and implement a credible change plan with appropriate goals, resources, metrics, and review mechanisms.	6. Change Execution (CEX); ability to formulate and guide the implementation of a credible change plan with appropriate goals, resources, metrics, and review mechanisms	Problem Solver: Analyse, create solutions and monitor. Change Mgr: Coordinate change, include, anticipate problems/ conflict.	Coherence Making	Execution: drives execution and accountability	Defusing resistance and conflict. Continuous Improvement and institutionalisation of changes	Systems thinking approach, input from external env to output in performance	Reflection, iterative approach, Refreeze into culture/ organisation	7: Consolidating gains and producing more change; 8: Anchoring new approaches in the culture
Identify and remove barriers that may slow down or prevent change.	6. Change Execution (CEX); ability to formulate and guide the implementation of a credible change plan with appropriate goals, resources, metrics, and review mechanisms	Remove barriers to action.	Coherence Making	Execution: drives execution and accountability, persuasive. Social: Empathetic, supported, people orientated, approachable.	Defusing resistance and conflict. Continuous Improvement and institutionalisation of changes	Management Practices	reduce barriers to change	5: Empowering broad-based action

Change Leadership Characteristic	Higgs & Rowland (2000)	(Gilley, 2005)	Fullan (2020)	Magsaysay & Hechanova (2017)	Guerrero et al. (2018)	Burke & Litwin (1992)	Burnes (2020)	Kotter (2012)
Implement change incrementally to allow for the organisation to adapt and cope.	6. Change Execution (CEX); ability to formulate and guide the implementation of a credible change plan with appropriate goals, resources, metrics, and review mechanisms	Execute change in small increments	Coherence Making		Defusing resistance and conflict. Continuous Improvement and institutionalisation of changes	Leadership	Iteration	5: Empowering broad-based action. 7: Consolidating gains and producing more change
Assess and deal effectively with individual and organisational resistance to change.	6. Change Execution (CEX); ability to formulate and guide the implementation of a credible change plan with appropriate goals, resources, metrics, and review mechanisms	Understand individual and organisational resistance to change	Energy, hope, enthusiasm	Execution: drives execution and accountability, persuasive. Social: Empathetic, supported, people orientated, approachable.	Defusing resistance and conflict. Continuous Improvement and institutionalisation of changes	Management practices, individual needs, and values	reduce barriers to change	5: Empowering broad-based action

Focus Group Preparation Survey

Page 1: Information Sheet

What is the purpose of the Study? My names is Trevor McSharry, a part time doctoral student in the Department of Education, Maynooth University. As part of the requirements for the Doctorate in Education, I am undertaking a research study under the primary supervision of Dr. Maija Salogangas, with secondary supervision from Dr. Rose Dolan. The study is concerned with an exploration of change and leadership in Higher Education, [REDACTED] partners- [REDACTED]. It is hoped that research findings will benefit these partners as they merge and form a technological university.

What will the study involve? Focus group interviews for each of the three institutes will be conducted with senior management and executive staff to discuss topics associated with change and leadership. Each focus group will take less than 1.5 hours and will be conducted online using MS Teams.

Who has approved this study? This study has been reviewed and received ethical approval from Maynooth University Research Ethics committee. You may have a copy of this approval if you request it.

Why have you been asked to take part? You have been asked because you are a senior manager or executive member in the ATU and have relevant insights and perceptions about change and leadership that is relevant to this study.

Do you have to take part? No, you are under no obligation whatsoever to take part in this research. However, we hope that you will agree to take part. It is entirely up to you to decide whether or not you would like to take part. If you decide to do so, you will be

asked to sign a consent form and given a copy of the information sheet for your own records. If you decide to take part, you are still free to withdraw at any time without giving a reason and/or to withdraw your information up until such time as the research findings are analysed and anonymised. A decision to withdraw at any time, or a decision not to take part, will not affect your relationships with the researcher or relevant institutes.

What information will be collected? Data will be collected from focus group discussions that will be structured with standardised questions relating to topics associated with change and leadership. The focus group participants will be asked to provide opinions, perceptions and priorities for various topics so that valuable qualitative data will be obtained to help inform the next stages of [research](#). In advance of the focus group, a pre-focus group survey will be carried out to provide information and confirm consent as well as gather some initial perceptions on change and leadership. A sketch exercise will also be completed by participants before the focus group to provide insights into their role in the context of change.

Will your participation in the study be kept confidential? Yes, all information that is collected about you during the course of the research will be kept [confidential](#). It is requested that all participants treat all contributions and discussions confidentially. In the research, no names will be identified at any time. All hard copy information will be held in a locked cabinet at the researchers' place of work, electronic information will be encrypted and held securely on MU PC or servers and will be accessed only by Trevor McSharry, the Primary Investigator (PI).

No information will be distributed to any other unauthorised individual or third party. If you so wish, the data that you provide can also be made available to you at your own discretion.

It must be recognised that, in some circumstances, confidentiality of research data and records may be overridden by courts in the event of litigation or in the course of investigation by lawful authority. In such circumstances the University will take all reasonable steps within law to ensure that confidentiality is maintained to the greatest possible extent.

What will happen to the information which you give? All the information you provide will be kept at Maynooth University in such a way that it will not be possible to identify

you. On completion of the research, the data will be retained on the MU server. After ten years, all data will be destroyed (by the PI). Manual data will be shredded confidentially and electronic data will be reformatted or overwritten by the PI in Maynooth University.

What will happen to the results? The research will be written up and presented as a dissertation for a Doctorate in Education. It is envisaged that some the research findings will be presented at National and International conferences and may be published in scientific journals. A copy of the research findings will be made available to you upon request.

What are the possible disadvantages of taking part? Apart from having to take the time out from your busy routine to stop and reflect on the important topics of change and leadership and how they impact you, it is envisaged that there would be no negative consequences for you in taking part. However, if some participants experience discomfort or distress during or after the focus group, it is recommended to contact your human resource department to seek appropriate support services.

What if there is a problem? At the end of the focus group, I will discuss with you how you found the experience. If you experience any distress or feel the research has not been carried out as described above, you may contact my supervisor Maija Salokangas at Maija.salokangas@mu.ie with any related issues.

Any further queries? If you need any further information, you can contact me at trevor.mcsharry.2020@mumail.ie.

If you agree to take part in the study, please proceed, otherwise please exit.

(If you would like a copy of this page, please print before proceeding thanks)

Page 2: Consent Form

By selecting yes in the box below, I agree to participate in Trevor McSharry's research study titled "An Exploration of Change and Leadership in Higher Education" and agree with the following conditions:

- The purpose and nature of the study has been explained to me.
- I've been able to ask questions, which were answered satisfactorily.
- I am participating voluntarily.
- I give permission for my focus group contributions with Trevor McSharry to be recorded.
- I understand that I can withdraw from the study, without repercussions, at any time, whether that is before it starts or while I am participating.
- I understand that I can withdraw permission to use the data right up to data analysis stage.
- It has been explained to me how my data will be managed and that I may access it on request.
- I understand the limits of confidentiality as described in the information sheet.
- I understand that my data, in an anonymous format, may be used in further research projects and any subsequent publications.

NOTE:

If during your participation in this study you feel the information and guidelines that you were given have been neglected or disregarded in any way, or if you are unhappy about the process, please contact the Secretary of the Maynooth University Ethics Committee at research.ethics@mu.ie or +353 (0)1 708 6019. Please be assured that your concerns will be dealt with in a sensitive manner.

For your information, the Data Controller for this research project is Maynooth University, Maynooth, Co. Kildare. Maynooth University Data Protection officer is Ann McKeon in Humanity house, room 17, who can be contacted at ann.mckeon@mu.ie. Maynooth University Data Privacy policies can be found at <https://www.maynoothuniversity.ie/data-protection>.

(If you would like a copy of these conditions and your consent, please complete boxes below and print before proceeding thanks)

This is to confirm that I have read and understood the information provided and consent to the conditions outlined. * *Required*

Yes

No

Please confirm your name as part of this record: * *Required*

Page 3: About You

What is your gender? * *Required*

What is your age? * *Required*

- Below 20
- 21-30
- 31-45
- 46-55
- 56-65
- above 65

How long have you worked in the Higher Educational Sector? * *Required*

- Less than 5 years
- 5-10 years
- 11-20 years
- 21-30 years
- More than 30 years

How long have you been in your position? * *Required*

- Less than 5 years
- 5-10 years

-
- 11-20 years
 - 21-30 years
 - More than 30 years

What Institute were you employed by prior to TU designation? * *Required*

-
-
-
- Other

What is your primary role? * *Required*

- Executive (PMSS Professional, Administration Management and Support Staff)
- Executive (Academic)
- Senior Management (PMSS)
- Senior Management (Academic)

If you are assigned to an academic faculty/ school, please select the one most appropriate, otherwise select N/A * *Required*

- Engineering
- Science
- Business and Humanities
- Other
- N/A

Page 4: Organisational Leadership

In the context of your institute's organisational culture and leadership, divide 100 points among these four alternatives, depending on the extent to which each alternative is similar to your organisation. The more similar, the higher the points.

The leadership in the organisation is generally considered to exemplify mentoring, facilitating, or nurturing. * *Required*

Please enter a whole number (integer).

Please make sure the number is between 0 and 100.

The leadership in the organisation is generally considered to exemplify entrepreneurship, innovation, or risk taking. * *Required*

Please enter a whole number (integer).

Please make sure the number is between 0 and 100.

The leadership in the organisation is generally considered to exemplify a no-nonsense, aggressive, results-orientated focus. * *Required*

Please enter a whole number (integer).

Please make sure the number is between 0 and 100.

The leadership in the organisation is generally considered to exemplify coordinating, organisation, or smooth-running efficiency. * *Required*

Please enter a whole number (integer).

Please make sure the number is between 0 and 100.

Please check that the four numbers entered above add up to 100 points before proceeding thanks.

Page 5: Change Leadership

For each of the change leadership themes listed, please indicate their importance from your perspective. * *Required*

Please don't select more than 1 answer(s) per row.

Please select at least 5 answer(s).

	Absolutely Essential	Very Important	Average Importance	Little Importance	Not Important at all
Strategy: Strategic thinking and leadership, appreciating that change can be complex, setting a vision and inspiring staff, removing barriers, effective communication.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<p>Capability: Building staff capability through creating a case for change, getting sponsorship, scoping the change and general change management skills. In addition the use of technology, having adequate resources and facilitating effective learning through teamwork and delegation.</p>	☐	☐	☐	☐	☐
<p>Context: Contextual factors including change drivers, power structures and the developmental stage of the institution, organisation culture as well as recruitment and development of leaders.</p>	☐	☐	☐	☐	☐

Complexity: HEIs can be described as complex organisations that could be characterized by complexity theory which suggests that organisations have complex structures and that organisations adapt to their environments for survival. Social networks facilitate knowledge sharing through diverse collaborative teams, which leads to bottom up change and innovation where the balance between flexibility and stability is maintained.



<p>Social: Social interactions and relations between staff, having key influencers on board and early involvement of staff. Developing and maintaining relationships, effectively dealing with conflict, celebrating short term wins and rewarding and recognizing staff achievements.</p>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

If you think there are any other important change leadership characteristics or themes not listed, please add here.

Page 6: Final page

Thank you for your time in reading this document and completing the survey in preparation for the upcoming focus group.

Best regards,

Trevor McSharry

Key for selection options

2 - What is your gender?

Male

Female

LGBQI

Prefer not to say

Appendix 4: Focus group interview questions

<u>Topic</u>	<u>Question</u>
Introduction	<ul style="list-style-type: none"> • What comes to your mind when you think of change and leadership?
Culture	<ul style="list-style-type: none"> • Regarding the competing values framework on the next page*, what are good examples of organisational Culture within your institute? Collaborative/ Create/ Compete/ Control: • What is the preferred Culture and why? • How does current and preferred culture influence change?
Change	<ul style="list-style-type: none"> • What are the main internal/ external change drivers? • How has Covid influenced staff tolerance/ acceptance of change? • How are staff coping with change generally? (Committed/ ready/ open?)
Management	<ul style="list-style-type: none"> • How do you think your institute is performing with change management of activities? • What are the key differences between Academic and Other staff with regards to change: • Regarding the merging and development of XXX, what do you think will be the key challenges from a change management perspective?
Leadership	<ul style="list-style-type: none"> • How do you think your institute is performing with leadership of activities? • How does this influence change leadership? • What are the key barriers that leaders face when leading change? • How effective is leadership recruitment and development?
Closure	<ul style="list-style-type: none"> • Does anyone have any final comments or insights on the topic of change leadership in Higher Education?

***Culture Assessment using the Competing Values Framework (Cameron and Quinn, 2011)**

The organisational culture assessment instrument developed by Cameron & Quinn (1999) is based on the competing values framework, a theoretical model frequently used for assessing organisational culture. The dimensions and quadrants in this framework are robust in explaining the different orientations and competing values that characterise human behaviour. Each quadrant can be identified as a cultural type. Please see figure 1 and 2 below for further details.

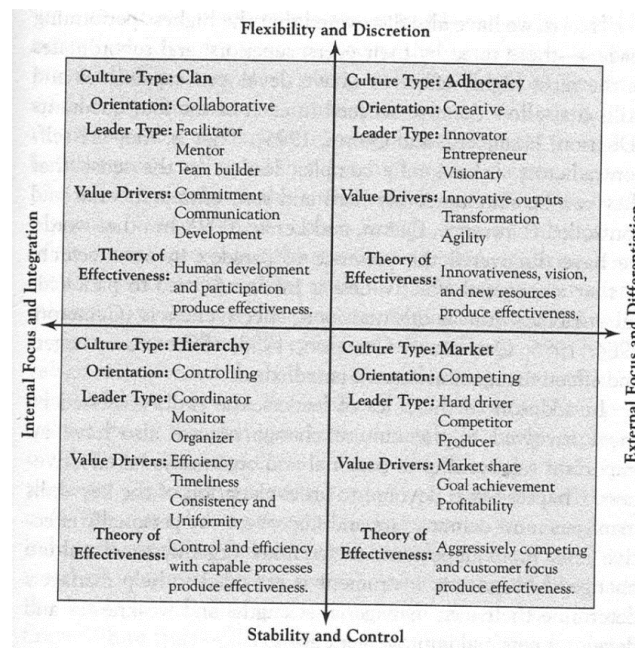


Figure 1: Culture Overview

<p>The Clan Culture</p> <p>A very friendly place to work where people share a lot of themselves. It is like an extended family. The leaders, or head of the organization, are considered to be mentors and, maybe even, parent figures. The organization is held together by loyalty or tradition. Commitment is high. The organization emphasizes the long-term benefit of human resource development and attaches great importance to cohesion and morale. Success is defined in terms of sensitivity to customers and concern for people. The organization places a premium on teamwork, participation, and consensus.</p>	<p>The Adhocracy Culture</p> <p>A dynamic, entrepreneurial, and creative place to work. People stick their necks out and take risks. The leaders are considered to be innovators and risk takers. The glue that holds the organization together is commitment to experimentation and innovation. The emphasis is on being on the leading edge. The organization's long-term emphasis is on growth and acquiring new resources. Success means gaining unique and new products or services. Being a product or service leader is important. The organization encourages individual initiative and freedom.</p>
<p>The Hierarchy Culture</p> <p>A very formalized and structured place to work. Procedures govern what people do. The leaders pride themselves on being good coordinators and organizers, who are efficiency-minded. Maintaining a smoothly running organization is most critical. Formal rules and policies hold the organization together. The long-term concern is on stability and performance with efficient, smooth operations. Success is defined in terms of dependable delivery, smooth scheduling, and low cost. The management of employees is concerned with secure employment and predictability.</p>	<p>The Market Culture</p> <p>A results-oriented organization. The major concern is getting the job done. People are competitive and goal oriented. The leaders are hard drivers, producers, and competitors. They are tough and demanding. The glue that holds the organization together is an emphasis on winning. Reputation and success are common concerns. The long-term focus is on competitive actions and achievement of measurable goals and targets. Success is defined in terms of market share and penetration. Competitive pricing and market leadership are important. The organizational style is hard-driving competitiveness.</p>

Figure 2: Culture Descriptions

Appendix 5: Focus group presentation slides

Focus Group Introduction
An Exploration of Change and Leadership
in Higher Education


Trevor McSharry

Doctoral Candidate
Department of Education
Maynooth University

1

Protocol

- Everyone completed preparation survey and consent form.
- Focus Group duration approximately 1 ½ hours.
- Please keep cameras on and no multitasking 😊
- Participants to contribute equally and keep discussions confidential.
- Data will be made anonymous at individual and institute level.
- Some notes will be captured on slides.



2

Introductions

What comes to your mind when you think of change and leadership?

- Share one sentence on change.
- Share one sentence on leadership.

NOTES:

Change:

- X
- x

Leadership:

- X
- x

3

Change Leadership & Change Management



- **Leadership:** The state or position of being a leader, the ability to be a leader or the qualities a good leader should have, a group of leaders of a particular organisation.
 - Change leadership often reflects a broad, universal approach to organisational changes
- **Change management:** relates to a more concrete, situational approach to change implementation.
- **Change:** To become different, change somebody or something, to pass from one state into another.

(Holten and Hancock (2019), cited by Herold et al. 2008))

4

Research Questions

- **Main Question:**
 - What do stakeholders consider valuable in change leadership?
- **Sub Questions:**
 - What are the main change drivers and contextual factors for change?
 - What are the current change characteristics and are staff ready and committed to these changes?
 - How are change processes perceived by stakeholders?
 - What is the importance and presence of change leadership competencies and personal characteristics?



5

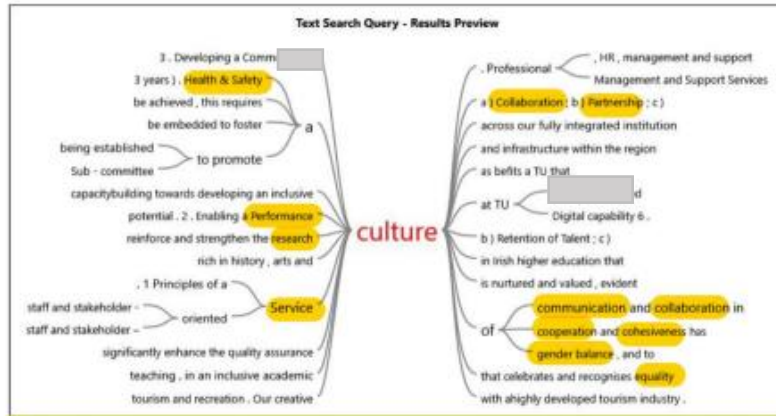
Change and Leadership in Higher Education

- 
- **Mixed Methods Research Design used:**
 - Stage 1: Qualitative Review of documentation.
 - Stage 2: Focus Groups with Senior Management.
 - Stage 3: Survey of all staff
 - Stage 4: Interviews with TU president and others.



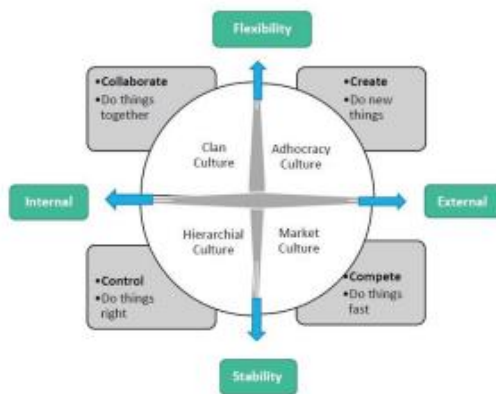
6

TU Submission- Culture Word Tree



9

Culture- Competing Values Framework



Cameron & Quinn (1999)

NOTES:

What is current organisational Culture? (E.g. Strong >25%, Average>15%, Weak<15%)

Clan/ Collaborate:
 Adhocracy/ Create:
 Market/ Compete:
 Hierarchical/ Control:

What is the preferred Culture? (E.g. Strong >25%, Average>15%, Weak<15%)

Clan/ Collaborate:
 Adhocracy/ Create:
 Market/ Compete:
 Hierarchical/ Control:

How does current and preferred culture influence change?

- Current:
- Preferred:

10

Change Drivers

NOTES:

What are the main internal/ external change drivers?

- Internal:
- External:

How has Covid impacted on staff tolerance/ acceptance of change?

- X
- x

How are staff coping with change generally? (committed/ ready/ open?)

- X
- x



11

Management

NOTES:

How do you think your institute is performing with change management of activities?

- Strengths:
 - X
 - x
- Weaknesses:
 - X
 - x

What are the key differences between Academic and Other staff with regards to change:

- X
- x

Regarding the merging and development what do you think will be the key challenges from a change management perspective?

- X
- x



12

Leadership

NOTES:

How do you think your institute is performing with leadership of activities?

- Strengths:
- Weaknesses:

How does this influence change leadership?

- X
- x

What are the key barriers that leaders face in leading change?

- X
- x

How effective is leadership recruitment and development?

- X
- X
- x



13

Final Comments/ Insights on Change Leadership?

THANK YOU!

Trevor McSharry

Trevor.mcsharry.2020@mumail.ie



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Appendix 6: Staff survey launch email

From: President of [REDACTED]

Sent: Monday 30 May 2022 16:06

To: All Staff <[allstaff@\[REDACTED\]](mailto:allstaff@[REDACTED])>

Subject: Staff Survey on Change and Leadership at [REDACTED]

Dear Colleagues,

Research is being undertaken at [REDACTED] by one of our colleagues, as part of a Doctorate in Education through Maynooth University. This research focuses on the topics of change and leadership at [REDACTED] which impact all staff at all levels, especially during these times of significant change.

As part of this research, I would be grateful if all staff can take part in the survey below, so that your voice can be heard and that findings are representative of our staff. Generalised findings and recommendations will be shared with [REDACTED] which will be very timely and relevant for helping [REDACTED] achieve its potential.

Higher education in Ireland is experiencing significant change, but little research exists in relation to change leadership. Findings from this research will be of interest, not only for [REDACTED] but for other newly formed TUs and existing educational providers and stakeholders.

All data will be kept confidential and anonymous, and no institutions will be named in this research.

The survey takes approximately 15 minutes to complete and can be returned to at any time up until its closure date of Monday 20th June. For every completed survey received, a personal donation will be made to a children's charity by the researcher.

If you would like a copy of the research findings or if you have any questions about the study, please contact the researcher at trevor.mcsharry.2020@mumail.ie.

Please click below to complete the survey:

[https://maynoothuniversity.onlinesurveys.ac.uk/survey-on-change-and-leadership-at-\[REDACTED\]](https://maynoothuniversity.onlinesurveys.ac.uk/survey-on-change-and-leadership-at-[REDACTED])

Best regards,
[REDACTED]

Uachtarán/President

Survey on Change and Leadership at [REDACTED]

Page 1: Information and Consent

Thank you for participating in this survey, which is designed to capture all staff opinions in relation to change and leadership at [REDACTED]. With your participation, the results will be more accurate and meaningful so that useful recommendations can be identified that will help [REDACTED] achieve its potential.

This survey is part of a Doctorate in Education through Maynooth University and will take approximately 15 minutes to complete and can be returned to, at any time up until the closure date of the 20th June. The survey is completely anonymous and for every completed survey, a donation will be made to a children's charity.

Higher Education in Ireland is experiencing significant change. However, there is little research on the topic of change leadership in higher education, nationally or internationally.

Generalised findings and recommendations from this research will be shared for the benefit of [REDACTED].

If you need any further information, please contact me at trevor.mcsharry.2020@mumail.ie.

Thanks in advance for your time and insights!

This is to confirm that I have read and understood the information provided and consent to participate. * *Required*

- Yes
- No

Page 2: About You

What is your gender? * *Required*

- Male
- Female
- Other
- I prefer not to say

What is your age? * *Required*

- Below 30
- 30-45
- 46-55
- 56-65
- above 65

How long have you worked in the Higher Educational Sector? * *Required*

- Less than 5 years
- 5-10 years
- 11-20 years
- 21-30 years
- More than 30 years

How many years have you been in your current position? * *Required*

-
- Less than 2 years
 - 2-4 years
 - 5-10 years
 - 11-20 years
 - 21-30 years
 - More than 30 years

What Institute were you employed by, prior to TU designation? * *Required*

- 
- 
- 
- Other

If you selected 'Other' please specify:

What was your primary role in your institute, prior to TU designation? * *Required*

- Teaching
- Research
- Non- Management PMSS (Professional, Admin. Management, Support Staff)
- Senior Management- PMSS
- Senior Management- Academic
- Executive- Academic
- Executive- PMSS
- IOT President

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Other

If you selected 'Other' please specify:

If you are assigned to an academic faculty/school, please select the domain most appropriate, otherwise select N/A. * *Required*

- Engineering/Technology
- Science/Health
- Business/Social Science
- Creative /Cultural
- Other
- N/A

If you selected 'Other' please specify:

Page 3: Change and Leadership Context

This section seeks your views and experience of change and leadership in your institution and how it is impacting on you and your job.

Please state how strongly you agree or disagree with the following statements on **how change is impacting on you** * *Required*

Please don't select more than 1 answer(s) per row.

Please select exactly 11 answer(s).

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I become empowered by contributing to change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My manager enables me to take part in leading change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I am part of a team to support change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel involved in change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Resources are available to support my contribution to change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I cope with change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understand why and how change happens in my institution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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I feel change is imposed on me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I can make my voice heard regarding change in my institution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My job feels secure despite changes in my institution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The Covid pandemic has made me more open to change	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent do you agree or disagree with the following statements on leadership? *
Required

Please don't select more than 1 answer(s) per row.

Please select exactly 7 answer(s).

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
Leadership is about the authority to get things done	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leadership develops in a context	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leadership can be found at all levels of an institution	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leadership can be learned	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Leadership makes change happen	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leaders are born that way	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Everyone can be a leader	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is there anything else you would like to add about change and leadership? (Optional)

Page 4: Importance of Change Leadership Characteristics

Note: Leadership has been defined as the ability to produce change. Change Leaders help their organisations evolve and move forward through envisioning, inspiring and supporting change efforts.

This section allows you to draw on your own experience within your institution before TU designation, and highlight the **importance** of various characteristics of change leaders in your institute, from your perspective.

How **important** is it that change leaders have the following characteristics associated with capability at your institute? * *Required*

Please don't select more than 1 answer(s) per row.

Please select exactly 7 answer(s).

	Absolutely Essential	Very Important	Average Importance	Little Importance	Not Important at all
Create the case for change and secure credible support from senior management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scope out the impact and sustainability of the change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Possess the required knowledge and application of change theories, tools and processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Provide adequate resources to facilitate and embed change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Share knowledge and invest in continuous professional development to strengthen individual, group and organisational capabilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develop and implement a credible change plan with appropriate goals, resources, metrics and review mechanisms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ensure staff are sufficiently trained to enable them to embrace current and future changes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How **important** is it that change leaders have the following characteristics associated with strategy at your institute?

Please don't select more than 1 answer(s) per row.

Please select exactly 6 answer(s).

Absolutely
Essential

Very
Important

Average
Importance

Little
Importance

Not
Important
at all

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Understand that change can be complex and not straightforward.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Establish a clear vision for the change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspire individuals across the organisation to accept that change is needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Identify and remove barriers that may slow down or prevent change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communicate and consult effectively so that any concerns are identified and staff understand benefits of change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Implement change incrementally to allow for the organisation to adapt and cope.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How **important** is it that change leaders have the following characteristics associated with social activities at your institute?

Please don't select more than 1 answer(s) per row.

Please select exactly 6 answer(s).

	Absolutely Essential	Very Important	Average Importance	Little Importance	Not Important at all
Build a credible team from diverse backgrounds across the organisation, to drive the change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Involve staff from all levels in the change process from early on.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develop and maintain relationships with staff and other stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accept that conflict is part of the change process and resolve it effectively in a constructive way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reward and recognise staff for their contributions to change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Celebrate short term and long term wins/successes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

How **important** is it that change leaders have the following other characteristics at your institute?

Please don't select more than 1 answer(s) per row.

Please select exactly 6 answer(s).

	Absolutely Essential	Very Important	Average Importance	Little Importance	Not Important at all
Encourage creativity and innovation and support a 'no blame' culture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assess and deal effectively with individual and organisational resistance to change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develop a culture of trust, democracy and inclusion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Be committed to achieving the change through integrity and courage, while maintaining openness and persistence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put in place procedures and systems to embed the change into the organisation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delegate appropriate responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is there anything else you would like to add in relation to change leadership characteristics? (optional)

Page 5: Presence of Change Leadership Characteristics

Note: This final section allows you to draw on your own experience within your institution before TU designation, and highlight to what extent you agree or disagree that these same characteristics are **present** in change leaders at your institute, from your perspective.

To what extent do you agree or disagree that the following characteristics associated with capability are **present** in change leaders at your institute?

Please don't select more than 1 answer(s) per row.

Please select exactly 7 answer(s).

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Create the case for change and secure credible support from senior management.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Scope out the impact and sustainability of the change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Possess the required knowledge and application of change theories, tools and processes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Provide adequate resources to facilitate and embed change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Share knowledge and invest in continuous professional development to strengthen individual, group and organisational capabilities.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develop and implement a credible change plan with appropriate goals, resources, metrics and review mechanisms.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Ensure staff are sufficiently trained to enable them to embrace current and future changes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent do you agree or disagree that the following characteristics associated with strategy are **present** in change leaders at your institute?

Please don't select more than 1 answer(s) per row.

Please select exactly 6 answer(s).

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Understand that change can be complex and not straightforward.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Establish a clear vision for the change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Inspire individuals across the organisation to accept that change is needed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Identify and remove barriers that may slow down or prevent change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Communicate and consult effectively so that any concerns are identified and staff understand benefits of change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Implement change incrementally to allow for the organisation to adapt and cope.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent do you agree or disagree that the following characteristics associated with social activity are **present** in change leaders at your institute?

Please don't select more than 1 answer(s) per row.

Please select exactly 6 answer(s).

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
--	----------------	-------	-----------	----------	-------------------

Build a credible team to drive the change from diverse backgrounds across the organisation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Involve staff from all levels in the change process from early on.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develop and maintain relationships with staff and other stakeholders.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Accept that conflict is part of the change process and resolve it effectively in a constructive way.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reward and recognise staff for their contributions to change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Celebrate short term and long term wins/successes.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

To what extent do you agree or disagree that the following other characteristics are **present** in change leaders at your institute?

Please don't select more than 1 answer(s) per row.

Please select exactly 6 answer(s).

	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Encourage creativity and innovation and support a 'no blame' culture.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assess and deal effectively with individual and organisational resistance to change.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Develop a culture of trust, democracy and inclusion.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Be committed to achieving the change through integrity and courage, while maintaining openness and persistence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Put in place procedures and systems to embed the change into the organisation.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Delegate appropriate responsibility.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Is there anything else you would like to add in relation to the presence of change leadership? (optional)



Page 6: Final page

Sincere thanks for your time in completing this survey, which I hope will be of benefit to all stakeholders.

Best regards,

Trevor McSharry

Appendix 8: Interview questions for president

<u>Topic</u>	<u>Question</u>
STAGE 2	Focus Group Findings
Introduction	<ul style="list-style-type: none"> Do you have any comments on the focus group representation or initial findings on change and leadership topics?
Culture	<ul style="list-style-type: none"> Regarding the OCAI organisational culture model (Appendix 1), any comments on the indicated current culture from the pre-interview survey? What is the preferred culture of your university and why? How does current and preferred culture influence change? Regarding culture findings from the focus groups, is this what you would have expected? Why?
Change Drivers & Change Management	<ul style="list-style-type: none"> Regarding findings from focus group, do you have any comments on the change drivers, impact of Covid or staff being able to cope with change? Do you agree with the change management strengths and weaknesses from the focus groups? Why? Any comments in relation to the differences between PMMS and Academic staff? Regarding key challenges for the XXX, do you agree? Are there any other ones you can think of?
Leadership and Staff	<ul style="list-style-type: none"> Regarding focus group findings on leadership strengths and weaknesses and their influence on change, is this what you would have expected? Why? Comments? Additions? Regarding key barriers to leading change, are there any others key ones which come to mind? Are the findings on leadership recruitment and development in line with you own opinion?
STAGE 3	Staff Survey Findings
Change & Leadership	<ul style="list-style-type: none"> Regarding Stage 3 findings relating to impact of change, is this what you would have expected? Why? Regarding Stage 3 findings relating to Leadership, is this what you would have expected? Why? Regarding responses from PMMS versus academics and males versus females, do you have any observations or reactions?
Change Leadership Characteristics	<ul style="list-style-type: none"> Do you think the 25 change leadership characteristics broken into capability, strategy and other themes is a fair assessment tool? Anything missing? Regarding the top 12 most important change leadership characteristics, is this in line with your expectations? Why? Are there any other important change leadership characteristics that you would have thought should be listed? Regarding responses from PMMS versus academics, is this what you would have expected? Why?
Closure	<ul style="list-style-type: none"> Do you have any final comments or insights associated with this research that you would like to share?

Appendix 9: TU application word frequency and themes

Theme Number	Theme	Word	Word Count	Weighted Percentage (%)	Similar Words	Comment	Total Theme word count
1	Education	<i>support</i>	322	0.88	support, support', supported, supporting, supportive, supports	Support to students, support	
	Education	<i>programmes</i>	314	0.85	programme, programmes	Academic programmes	
	Education	<i>educational</i>	280	0.76	educate, educated, educating, education, educational	Higher Education, educational institutes	
	Education	<i>levels</i>	220	0.60	level, levels	Degree level, part time level, NFO, post grad, programme, doctoral	
	Education	<i>academic</i>	210	0.57	academic, academically, academics	Joint academic council, academic council, academic staff, QA planning, profile, support	
	Education	<i>students'</i>	492	1.34	student, students, students', students'	Students are central to education	
	Education	<i>learning</i>	211	0.57	learn, learned, learning, learnings	lifelong, Teaching and learning, online, RPL, student, Peer, TU, assessment	2,049
2	TU designation	<i>university</i>	328	0.89	universal, universities, university	University status being sought	
	TU designation	<i>institutes</i>	322	0.88	institute, institutes, institutes', institutes', institution, institutional, institutions, institutions'	Institutes merging to form a TU	
	TU designation	<i>technological</i>	390	1.06	technological, technologies, technology	TU and technology	
	TU designation	<i>designation</i>	229	0.62	design, designated, designation, designed, designing		
	TU designation	<i>application</i>	205	0.56	applicant, application, applications	TU application, application for designation as a TU	
	TU designation	<i>works</i>	189	0.51	work, worked, working, workings, works	work package, programme of work, plans, placements, work based learning	1,663
3	Change	<i>research</i>	516	1.40	research, researched, researcher, researchers	Demonstration of achieving criteria and future plans	
	Change	<i>development</i>	450	1.22	develop, developed, developers, developing, development, development', developments, develops	Development of criteria, TU etc.	
	Change	<i>project</i>	247	0.67	project, projected, projecting, projections, projects	Research projects, collaborative projects, TU project, capital proects	1,213
4	Engagement	<i>region</i>	398	1.08	region, regional, regionally, regions	Regional impact and support	
	Engagement	<i>engagement</i>	185	0.50	engage, engaged, engagement, engagements, engages, engaging	Community engagement, external, increased R&I, industry engagement, enterprise support, positive engagement with staff and students, external regulatory environment, student, stakeholder,	583
5	Staff	<i>group</i>	235	0.64	group, group', groups	Research group, steering and sub groups, working groups	
	Staff	<i>staff</i>	223	0.61	staff	PMSS and academic staff, straff training and numbers, researchers, qualifications, grades, consultation, skills	458