CONCEPTUAL MODELS FOR DEVELOPMENTAL NEEDS OF ACADEMIC MIDDLE MANAGERS IN HIGHER EDUCATION INSTITUTIONS

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A thesis submitted in partial fulfilment of the requirements of Liverpool John Moores University for the degree of Doctor of Philosophy.

May 2019

Volume 1 Main Thesis - Contents

Acknowledgement

It has been a great pleasure to have successfully completed this challenging yet exciting study. I would like to thank my Director of Studies, Professor Andrew Ross and supervisor Dr. Damian Fearon for extending their encouragement, positive criticism and acting as the driving force behind my academic endeavours. Their valuable insights, support and recommendations are heartily appreciated.

Immense thanks to all colleagues at Liverpool John Moores University for their support and resources. Special gratitude to all volunteers who participated in the data gathering stages. Furthermore, distinctive appreciation to all the journal publishers, conferences and seminars organizers both locally and internationally.

I emphatically acknowledge the backing and financial support received from my aunt Parveen and uncle Yakub in completing this unquestionably challenging PhD journey. This achievement was not possible without their assistance.

Last but not least, to all my family and friends for their support and understanding throughout these demanding years.

Thesis declaration

This is to attest that this PhD thesis is complete work of the author incorporating all contributions and in line with the academic integrity of Liverpool John Moores University.

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Date: 24th May 2019

Abbreviations and Definitions

BIS - The Department for Business, Innovation and Skills

BOS - Bristol Online Survey

CAQDAS - Computer Assisted Qualitative Data Analysis

CPD - Continuing Professional Development

DN - Developmental Needs

FA - Factor Analysis test

HEA - Higher Education Academy

HEFCE - Higher Education Funding Council for England

HEI - Higher Education Institution

HESA - Higher Education Statistics Agency

HR - Human Resources

IT - Information Technology

KMO - Kaiser-Meyer-Olkin

KS - Kolmogorov-Smirnov Test

LJMU - Liverpool John Moores University

NPT - Non-Parametric Tests

NSS - National Student Survey

Academic MMs - Middle Managers

NVIVO - Qualitative Data Analysis (QDA) computer software package

OfS - Office for Students

PCA - Principal Components Analysis

PDPRs - Personal Development and Performance Review

PS - Pilot Study

PRUB - Projects to create Results (assets) which people Use to create Benefits

REF - Research Excellence Framework

SPSS - Statistical Package for the Social Sciences

SW - Shapiro-Wilk test

TEF - Teaching Excellence Framework

WSR - Wilcoxon Signed-Rank Test

Abstract

Development of employees by the Human Resources (HR) department in any organization is crucial to implementing its strategy, processes and procedures for success. The same principle applies to Higher Education Institutions (HEIs) in which academic Middle Managers (MMs) are the balancing drivers who execute organization's vision and mission and contribute towards its goals. At faculty level, academic MMs roles include Deans, Head of Departments, Subject leaders and Principal lecturers/Programme leaders. However, emergent from contemporary literature studies shows that HEIs structures and systems are rapidly changing and highly impacting academic MMs in their roles.

Thus, the changes and challenges transpiring in the HEIs sector are inducing and creating colossal pressures and workloads for academic MMs to work effectively and efficiently in their respective roles. Contributing to this burden, are factors such as; an increase in student numbers and retention, bureaucracy, accountability and reporting, policies, skills, management and leadership development and practice, globalisation and international outlook, competition and league tables, resources, technological advances, quality teaching, learning and research, providing value and creating balance.

Based on these notions, the research aim is to create conceptual models for developmental needs of academic MMs in HEIs via a mixed methodology implemented in three phases.

The findings of this research through qualitative enquiry identified fifteen factors during semi-structured interviews, six main categories using grounded theory approach, and eight main themes in case studies. In quantitative approach, seventeen factors using univariate analysis and sixteen factors using factor analysis were identified.

The originality of this study contributed to the theory, practice and research of academic MMs developmental needs by; new interpretations of the authors in the field, testing and adding to theories, synthesizing work and offering work perspectives, carrying out innovative research in UK and detailed work across methods.

Keywords: Development Needs (DN), Higher Education Institutions (HEIs), Human Resources (HR), Middle Managers (Academic MMs).

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Overall outline of thesis chapters

CHAPTER	DESCRIPTION	SYNOPSIS
Chapter 1	INTRODUCTION	Chapter 1 introduces the topic under consideration. Key aspects of the research are outlined by establishing the research rationale, questions, aims and objectives.
Chapter 2	LITERATURE REVIEW	Chapter 2 draws on the literature review conducted in the context of the changing environment of HEIs in the UK. Academic MMs position on development is elaborated at these institutions. The themes emergent from the Literature Review are reported with respective authors.
Chapter 3	METHODOLOGY	Chapter 3 describes the overall research methodology in detail and features on the research framework/plan and its execution. It encompasses the various elements of the research including; philosophy, approach, strategies, choices, time period and techniques and procedures. Furthermore, research methods, techniques and procedures for data collection and analysis for the strategies. Furthermore, overall research flow, units of analysis and sampling are reflected with the research reliability and validity and also time horizons.
Chapter 4	PHASE 1- QUALITATIVE PILOT STUDIES	Chapter 4 reports on phase 1 of the project encompassing pilot studies conducted in conjunction with literature review findings to formulatesemi-structured interview questions targeted for Academic MMs in a UK post 1992 university.
Chapter 5	PHASE 2- QUALITATIVE semi-structured INTERVIEWS, CASE STUDIES, GROUNDED THEORY AND PILOT STUDIES	Chapter 5 describes the qualitative part of the project. It informs on the rationale and strategies adopted. Also, sampling and data collection and analysis of conducting semi-structured interviews, grounded theory, case studies are discussed subsequent to development of a conceptual model. Also, testing of the model via pilot studies prior to validating in quantitative phase.
Chapter 6	PHASE 3- QUANTITATIVE	Chapter 6 details on phase 3 of the project incorporating the survey questionnaire. The

	SURVEY QUESTIONNAIRE	rationale, strategy, sampling, data collection and data analysis of the survey questionnaire are discussed in detail. the level of measurements applied on the types of variables in the questionnaire and types of statistical analysis tests conducted are featured.
Chapter 7	MODEL DEVELOPMENT	Chapter 7 gives an in-depth account of model development via the mixed methodology approach. The themes emergent from the qualitative stage are described in detail using the various techniques and procedures namely; semi-structured interviews, case studies (micro, meso and macro levels), grounded theory and survey. The chapter concludes with a model statement.
Chapter 8	DISCUSSION OF RESULTS AND CONCLUSION	The final chapter discusses results and conclusions of the study and reveals the achievements of the aim and objectives, main research findings, implications and deliverables to the area of Academic MMs development, implications and contribution to theory, practice and research, implications of originality, reflection and research limitations, beneficiaries and future recommendations.

CHAPTER 1. INTRODUCTION

1.1 Chapter 1 overview

This chapter introduces and draws on the context of the research. Fundamental aspects of the research are encompassed with establishing the research questions, aims and objectives.

1.2 Introduction

The higher education sector is overwhelmed by change and challenges. This is due to the effects of the world financial crisis; social, environmental and demographic change; rapid developments in technology; and accumulative national and international competition for students, staff and funding by Higher Education Institution (HEIs) (Bolden et al, 2015).

Today, numerous academics across the UK HEIs feel their voices are not heard within their education institutions. Academics who are universities greatest resource and who are highly educated, intellectually smart, and often eloquent feel that they are underused in institutional decision-making processes. The conception of what the staff group might usefully have, and decisive input into fundamental management outcomes has died a death in the majority UK universities. An orthodox grievance within the sector is of changes being imposed by managers and by external bodies against the advice of those who work at the academic forefront. This contributes to the disadvantage of their work in the core business of research and teaching (Bacon, 2014).

Another aspect of changes and challenges arises from student experiences. In developing HEIs the renowned report presented by Lord Browne titled *Securing a sustainable future for higher education* recommended more investment for HEIs and to offer student choices. The report suggested, students who had the capacity and potential should be able to benefit from HEIs. Furthermore, that no student should have to pay up until they commence work and only after securing a job, when they start earning a certain amount, they pay back their education loans. However, the report suggested that the entire educational processes and outcomes should be made easier for students. The report also recommended a level playing field be set for part time students to be considered equal to full time students for the costs of learning (Browne, 2010). Policies, rules and regulations have also played a key role in pressurising the staff working in HEIs. In the modern context, examples of policies outlined in the Higher Education and

Research Bill are; student choice, excellent teaching, smarter regulation and UK to become world leading in research and innovation are supplemental to additional changes, pressures and heavily impact the staff in such HEIs (BIS, 2016).

1.3 Research Questions, Aim and Objectives

1.3.1 Introduction

Basically, the motivation of the research process is to uncover answers to posed questions via the application of scientific procedures. The central purpose of research is to find out the truth which is concealed, and which has not been discovered yet (Kothari, 2004). So, a researcher may enquire, what embodies a good research? Generally, one anticipates high quality research to be purposeful, with a vivid defined focus and credible goals. Not only should the research be defensible, ethical, and actionable, it must have proof and sense of objectivity. The reporting of processes and procedures, their strengths and weaknesses should be unbiased, complete and honest. Suitable analytical techniques must be used, and conclusions drawn must be limited to those clearly justified by the findings. Furthermore, the reports of findings and conclusions ought to be clearly presented and professional in tone, language, and appearance (Cooper and Schindler, 2002). Based on these research criteria, this research is founded on these core values in all stages of the research process. Additionally, the research initiated by examining the extant current literature and reviewing it and establishing and refining the research questions.

1.3.2 Research Question Rationale

As manifested from the Literature review (Chapter 2), the researcher pursued to carry out an investigation in Higher Education Institutions (HEIs) in relation to the academic MMs developmental needs perspective. As highlighted in the critical review of the literature, there are certain gaps in various aspects affecting academic MMs. A fundamental aspect influencing development in HEIs today is that “new managerialism” is exerting pressures on academic MMs to perform efficiently and lacks formal developmental training for their management role (Deem, 2000). Similarly, it is identified that inadequate training and non-existent job descriptions are also a deterrent factor especially in the Chartered (pre-1992) universities (Smith, 2002). While, (Hotho, 2013) expresses that changes in HEIs are getting in the way of academic managers teaching and research work.

Therefore, measures in development and training for changes in roles of academic MMs need to be addressed by HR in such institutions. Beech and Macintosh, (2012) state that lack of clear strategic direction from senior management and poor communications needs to be addressed in the way of development and training. Based on these unlimited findings, there is certainly a problem with development training of the academic MMs in HEIs as substantiated. In a study conducted by Chartered Management Institute (CMI), it was found out that HEIs need to rethink their approach to developing academic MMs and that only 3 out of 17 academic MMs (17.64%) at one University had received any training before taking on management roles (CMI, 2016). Following from these few underpinnings from literature, the researcher formulated the following research questions.

1.3.3 Research Questions

Influenced by the Literature Review underpinnings, the researcher formulated the following research questions for this study;

RQ1 - What are the changes and challenges affecting academic MMs in Higher Education Institution (HEIs)?

RQ2 - If the Middle Management developmental programmes provided to academic MMs in their respective HEIs are effective and supportive?

RQ3 - What are the current developmental needs for academic MMs working in HEIs based on evidential assessment?

RQ4 - The top three areas of development that would support academic MMs in their roles?

1.3.4 Research Aim

The ultimate research aim is to create conceptual models for developmental needs of academic MMs in HEIs. The models are to be adopted by UK HEIs to develop their academic MMs in meeting emergent demands of the sector. Also, to identify the key factors requiring developmental needs for academic MMs.

1.3.5 Research Objectives

To achieve the above aim the following objectives were derived by the researcher.

1. To create a theoretical framework based on findings from literature review and two pilot studies and devise a list of questions for data collection by semi-structured interviews.

2. To carry out qualitative data collection and analysis using the semi-structured interviews of academic staff (including Deans, Head of Dept. /School Director, Subject Heads and Principal/Senior Lecturers) at a post-1992 UK university. And to evaluate the collected data using grounded theory.

3. To transcribe and examine 14 out of 23 interviews in rich detail (verbatim format) and analyse and compare as case studies using macro, meso and micro cases, while the remainder 9 interviews to be audio verified and to validate the findings of qualitative part of the research.

4. To synthesis and establish a survey instrument derived from the qualitative findings. To initially pilot test the survey questionnaire with 15 academic MMs and analyse 11 feedback forms and updating the changes. To conduct a second pilot study with 25 academic MMs and analyse 16 feedback forms.

5. To make relevant changes and formulate the final survey questionnaire. To disseminate the concluding survey questionnaire externally to 2,035 participants working at 141 UK HEIs. To evaluate, analyse and test quantitative data in SPSS.

6. To critique and contribute to HEI environment by developing conceptual models for impartial implementation by HR departments in HEIs so as to develop academic MMs using various methods and techniques.

1.4 Summary of Chapter 1

Chapter 1 introduced the topic under consideration. Key aspects of the research were outlined by introducing the current environment of HEIs. The research rationale was establishing based on the foundation of critically reviewing the literature and assessing the gaps in the area of academic MMs development. Prompted by the literature review underpinnings, the researcher formulated four key research questions for this study. Furthermore, the main aim of the research is discussed, which is, to construct Conceptual Models for Developmental Needs of academic MMs in Higher Education Institutions (HEIs) based on evidential assessment. The model is designed to be adopted by UK HEIs to develop their academic MMs working in the complex HEIs environment. However, to realise

the aim of the study, six key research objectives are also formulated in the research plan.

CHAPTER 2. LITERATURE REVIEW

2.1 Chapter 2 overview

Chapter 2 draws on the literature review conducted in the context of the changing environment of HEIs in the UK. Academic MMs definition and position in HEIs is discussed with aspects of leadership and management, development and training of academic MMs. Also, key themes affecting academic MMs in HEIs are shown in a theoretical framework. Academic MMs position on development is elaborated at these institutions.

2.2 Introduction

A critical review of the literature is necessary in progressing a systematic understanding of the topic under investigation. This gives a basis and details into prior work that correlates to a researcher posed research question(s), aim and objectives. The literature review sets the work in perspective by examining, discussing and referencing work that has already been undertaken for the topic. Fundamental facts materialize from the literature which need further investigation and the chapter exhibits them in a logically argued way. Furthermore, the process of conducting a literature review features on those areas where a researcher strategizes to stipulate contemporary insights (Saunders et al., 2016a).

2.3 Higher Education Institutions (HEIs)

In 1963, a specialist team on Higher Education in UK, chaired by Lord Robbin produced a report on development and reorganization of the higher education system. The report's publication was welcomed by the education fraternity and its conclusions were acknowledged and approved by the government in October the same year. The report recommended instantaneous expansion of UK universities due to the rising numbers of full-time university students. Additionally, the report suggested that Colleges of Advanced Technology should be given university status (Thomas, 2014). In 1992, the so-called binary divide education structure was brushed aside when polytechnics amalgamated as new modern post-1992 universities. In 1997, a significant undertaking in HEIs was the "The Dearing Committee of enquiry report" which fashioned an escalating debate on the HEI environment and summarized that the increment of student numbers made key funding problems and alternative solutions to be sought to sustain the costs. This was an indication to charging fees to students for their education in years to come (Lunt, 2008). In 2010, a publication by Lord Brown and his team

on HEIs titled “Securing a Sustainable Future for Higher Education” emphasized on funding of HEIs. The team made recommendations on teaching within HEIs that could be sustainably financed (Browne et al., 2010: 2).

The report underpinned the following key highlights;

• Increase student choice on their education options

• Everyone with educational aptitude must be able to benefit from HEIs

• No students should have to pay their loans back until they start to work.

• When education payments are made, they should be affordable.

• Costs of learning equality and treatment set for both part time and full-time students.

In the current contemporary setting of the UK education system, there are 141 HE providers (UK Government, 2017). Also, Universities UK, a body supporting and voicing on behalf of its member universities and which helps to maintain the world-leading capacity of the UK university sector, reported that in 2016–17, there were 2.32 million students studying at UK HEIs comprising of 1.76 million Undergraduate students and 551,585 Postgraduate students. Full time and Part time students accounted for 1.80 million and 518,930. The majority of the students studying in HEIs came from the UK at 1.87 million, while students from non-EU countries amounted to 307,540. The least of the cohort were students from the EU amounting to 134,835 (UUK, 2017). Changes in HEIs sector are taking place so rapidly that it is difficult to measure the length and breadth of HEIs in totality. As an example, the National Student Survey (NSS), an institution which provides a recognized set of information that drives and monitors enhancement in the student academic experience and helps prospective students make informed choices (NSS survey 2016), restructured their survey in 2017 asking students, and targeting undergraduates on their experiences in HEIs by asking 27 questions whose results are of quality and credibility as the students participate in anonymity and students can’t be identified by their respective HEIs. The NSS survey administered independently by Ipsos MORI who deliver information and analysis for their clients (Ipsos MORI, 2018).

However, the NSS is commissioned by a new renamed association called the Office for Students (OfS) - a body which was formerly the Higher Education Funding Council for England (HEFCE). Other appointees of NSS are the Higher

Education Funding Council for Wales (HEFCW), the Department for Economy Northern Ireland (DfENI), the Scottish Funding Council (SFC), and Health Education England (HEE). Lastly, other beneficiaries are participating private/alternative Higher Education providers (NSS, 2018).

Additionally, the government updated the Higher Education and Research Bill in 2017 in the ever-dynamic environment of HEIs. The bill's intention is to support the Government's mission to boost social mobility, life chances and opportunity for all, and enhance the competitiveness and productivity of the British economy. The bill states…

> "This Bill will deliver greater competition and choice that will promote social mobility, boost productivity in the economy and ensure students and taxpayers receive value for money from their investment in higher education, while safeguarding institutional autonomy and academic freedom. It will help ensure that everyone with the potential to benefit from higher study can access relevant information to help them make the right choices from a wide range of high-quality universities and benefit from excellent teaching that supports their future productivity. It will also strengthen the UK's world-class capabilities in research and innovation"
> (BIS, Higher Education and Research Bill, 2018).

The bill further endorses student choice by delivering key educational information for the student to rely upon in establishing which HEI to study at and on the course availability. Subsequently, there was the introduction of new Teaching Excellence Framework (TEF) awards based on university rankings aimed at recognizing and rewarding excellence in teaching and learning in Higher Education Institutions (HEIs). Furthermore, the new TEF assists prospective students' on various choices about HEIs. In detail, the TEF is based on voluntary participation and individual HEIs decide whether they wish to be accredited or not. Awards of TEF are based on Olympic style Gold, Silver or Bronze (HEFCE, 2017a).

The Bill also highlights on supporting HEIs, by empowering them with high-quality processes so various students can access wider options for their studies from multiple range of institutions, and, focusing on improving the teaching quality and standards, so students and employers likewise get the skills they require. An interesting facet of the bill is to place more HEI associated information in the grasps of students through a system called *transparency revolution*. The Government also has improved on the regulations, placing students at the heart of the system. Governing changes have also impacted the HEI sector, as

mentioned, with the creation of the Higher Education Funding Council for England (HEFCE) and affiliated bodies, the Office for Fair Access (OFFA) with a new market regulator, the Office for Students (OFS).

Another key factor outlined in the bill is for the Government to boost social mobility via widening participation. Finally, the bill highlights the UK HEIs sector's position of strength by advancing its reputation of being a world-class higher education system by offering world-leading research and innovation and protecting the research funding system.

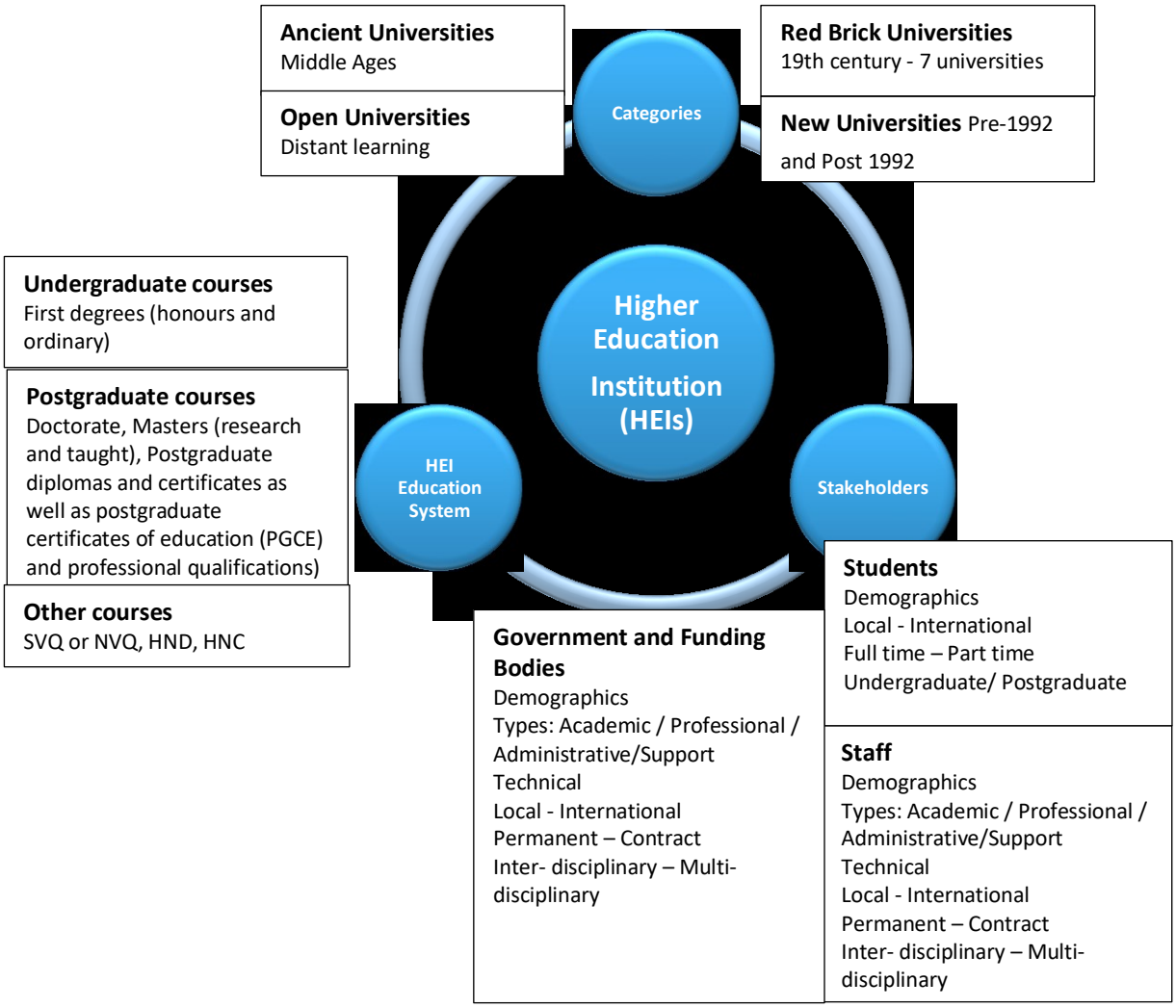

Figure 1: The UK HEI system and stakeholders

2.4 Context of changing environment of HEIs

One study by Trowler, Ashwin, & Saunders, (2014) examined the trend of changes in HEIs which are facilitating mistrust within the profession, imposing greater workloads for academics, and a deterioration in collegiality. The study also found that the changes were a threat to self-identity for academics. In

another study by Vincent, (2004) showcased that income pressures, and the shift towards autonomy and entrepreneurialism spread pressures for HEIs to generate income. Thus, the stakeholders were demanding better public management and governance defined by accountability, transparency, efficiency, effectiveness, responsiveness and forward vision as reported in Kubler and Sayers (2010) study. The study highlights why the structures of HEIs, and regulation and governance of different structures of higher education are other key challenges facing the sector. Much of the current literature on HEIs pays particular attention to such changes and challenges as, structures, technology and, student experiences. Other key factors include the impact of technology as reported in Cooke's report on e-learning. The findings contributed to the UK government's debate on the future of higher education, and the report laments that when talking of technological advances, predictions beyond a few years is a fool's game (Cooke, 2008).

Several recent studies investigating the current scenario of HEIs have been carried out. A study by Altbach, et al, (2009) outlines the impact of a *Changing Student Population* that examines possible student demographic changes (including overall rates of participation, changes in student type, and variations by region) and international student mobility and discovers some of the implications of potential transformations; changing academic and professional roles (Middlehurst, 2010); Changing Staffing Models (HEFCE, 2010); Quality assurance in UK Higher Education (Hoecht, 2006); Accountability and Transparency (Watson, 2011); New Public Management (Hood, 1991); Effective Leadership (Bryman, 2007); Policy changes (Stanfield, 2011) and last but not least HEIs strategies that are driven by a desire to be at or near the top of rankings and league tables (Cowen, 2007). More underpinnings are discussed in the theoretical framework presented at the end of this chapter. As mentioned, the Governments former body, HEFCE, now called the Office for Students (OFS), which is the new regulator of HEIs in England, and Research England, the new council within UK Research and Innovation, developed the knowledge exchange framework, which is intended to support the Government's industrial strategy 'Building a Britain fit for the future' in November 2017. The framework plan is to strengthen the efficiency and effectiveness in the use of public funding for knowledge exchange (KE) (HEFCE, 2018).

Furthermore, after the Dearing Report, recommendations were made to introduce student tuition fees. Hence, in 1998 students commenced paying tuition fees and annually contributing around £1,000 to their chosen university or college. In 2006-07, English universities and colleges increased fees. It was notable to see that universities could charge variable fees subject to a maximum cap and fees also increased with inflation each year. However, in 2009-10 universities charged no more than £3,225 per academic year for their undergraduate courses (HEFCE, 2009).

In a recent survey to find out student perception on fees, students in English HEIs disputed the introduction of variable tuition fees. The poll conducted with more than 1,000 students for the Higher Education Policy Institute, uncovered an extensive scepticism among students about the idea. Nearly 63 % felt that all full-time undergraduate courses should cost the same, while only 33% disagreed (Times Higher Education, 2018). In a report by UUK titled “Patterns and trends in UK higher education 2017”, it was found that Higher Education in the United Kingdom is undergoing a period of significant change. Emerging trends and projections in HEIs related to demographic, economic, technological and political changes are likely to have implications for future trends in higher education (UUK, 2017).

Also, widening participation in UK HEIs at both undergraduate and graduate levels in management programmes has many challenges for professionals to ensure students’ progression, retention and sustain overall professionalism (Hazzard and Nwagbara, 2016).

2.5 Defining the academic Middle Managers

In a typical organization setting, the function lines within the firm are; accounting, human resources, services, research, development, and marketing. This is somewhat similar to the structure of HEIs. Managing people positively in such departments, is currently understood extensively to be a fundamental pre-requisite for any company’s success. Intriguingly, it is also a skill that vast numbers of managers are not taught. Despite this, managers at every level of an organization are expected to manage, guide, motivate and lead people through change (Matthews, 2015).

Top-level managers in an establishment normally pull the data, details and facts from outside the establishment environment and drive information gathered down

in the hierarchy to the lower layer. Low-level managers are supervisors who directly deal with and manage workers and take full responsibility for the day to day operations of the business. On the other hand, academic MMs deal with setting the goals for the department level decision-making both in industry and HEIs. They are the direct vertical link between the top and bottom managers. Based on the underpinnings of the literature review and built on theoretical framework formulation, generally, we can define the academic MMs working in HEIs as individuals who:

1. The Academic MMs role is complex, ambiguous and drifts between managerialism and collegiality - (Gatenby et al, 2014), (Rudhumbu, 2015). (Conway and Monks, 2011), (Currie et al. 2008).

2. Academic MMs are faced with massive changes, challenges, pressures, workloads in their roles - (Floyd, 2012), (Trowler, Ashwin, and Saunders, 2014)

3. Academic MMs to enhance their leadership to enable effectiveness and efficiency in their working environment - (Bryman, 2011), (Goldfinch and Wallis 2010).

4. Academic MMs highly accountable and have to be transparent, However, they feel not involved in decision-making processes - (Bacon, 2014), (Watson, 2011).

5. Need more formal training and development for working in their roles in highly bureaucratic structures full of pressures - (Conway and Monks, 2011), (Bolden et al, 2015), (Deem, 2000). Also, need support in teaching, research skills and information technology - (Brew et al, 2016), (Bolden et al, 2015), Williams et al (2016), (Cooke, 2008)

6. Are affected by student numbers and feel more pressurised than ever before- (Altbach, Reisberg, and Rumbley, 2009)

2.6 Academic Middle Managers in Higher Education Institutions

Academic MMs are a key unit of HEIs success and balancing drivers who execute organization vision, mission and contribute towards its goals. academic MMs act as a force between the top and bottom management and run everyday activities based on organizational change, processes and, procedures, and produce results. At faculty level, academic MMs roles include Deans, Head of Departments, Subject leaders and Principal lecturers/Programme leaders. A similar view is presented by Harding, (2014) suggesting academic MMs inhabit a central position in organizational hierarchies in which they are responsible for executing senior management plans by confirming junior staff fulfil their roles. However, academic MMs remain critical to change processes in organisations and need to continue to be given role relevant recognition and support (Balogun et al, 2015).

A number of other authors have considered the effects of academic MMs working in HEIs. It is expected that the role of academic MMs lacks empirical evidence, after decades of research examining the role of academic MMs and organizational change processes, no governing theoretical approach has emerged to justify for the pragmatic phenomena (Conway and Monks, 2011). It is predominantly agreed among academic experts, that the institutional intricacy of bureaucratic structures through which academic MMs operate, creates a challenging terrain for the enactment of change agency roles. Conway and Monks further propose that there is a deficiency of empirical evidence addressing how pressures and uncertainties in the academic MMs role are played out in modern public services, especially across different organizational types. In this perspective, it is worthwhile to contemplate on Currie's proposition that academic MMs are under new managerialism or bureaucracy in HEIs. The utmost unrelenting role demanded of academic MMs under contemporary managerialism has been that of entrepreneurial leader working in HEIs. Academic MMs are required to adopt prerequisites and embrace the techniques and practices of private sector counterparts to lead in the delivery of innovative public services and culture change in their respective HEIs (Currie et al. 2008).
In a study titled "*To investigate the personal and professional circumstances that lead academics to become academic MMs",* the author determines that there is an intensifying view that pressures associated with being an academic MMs

outweigh the perceived rewards of the role in HEIs nowadays. A key issue in academics becoming academic MMs is that Heads of Department (HoDs) are undertaking a massive amount of management and bureaucratic work at the expense of their teaching and research in their HEIs (Floyd, 2012). Furthermore, Floyds findings reveal other factors contributing to career advancement emanate from family background and schooling, university experiences, emerging career and forming an academic identity, and were part of the motivation for becoming an HoD. However, what is validated in the study, is that the awareness of lack of loyalty from institutions, individuals and accountability across the sector, have meant that the role of an academic (HoD) is also transforming and becoming complex, while, on the other hand, it is assumed that enormous numbers of academic staff are now employed on fixed-term contracts (Collinson, 2004). Interestingly, and in contrast, there is an alternative branch of career track managers, who as academics principally in post-1992 universities, want to intentionally move away from teaching and research, and value taking on a management role as climbing the career ladder and achieving being career-track managers (Deem, 2004). While there is a good deal of indistinctness about what the role of academic MMs is, author Gatenby and his associates consider the role of academic MMs as being of a change agent within public services, which is far from letting *managers manage* or *leaders lead*, government reforms appear to have cultivated an environment in which academic MMs roles are as pressured by central government as they ever were (Gatenby et al, 2014).

2.7 Leadership and Management in HEIs

Predictably, the assumption in success of a role in the public-sector leadership is established on acquiring and restructuring of public services delivery, allowing ‘leaders to lead’ and ‘managers to manage’ by executing local resolutions (Goldfinch and Wallis 2010). An innovative way of tackling Leadership and Management in HEIs is suggested by scenario planning. Huisman advocates that being creative with different ’stories’ about the long-term future, can assist institutions both to adapt to, and help create, whatever ‘New Story’ is emerging (Huisman, 2012). Similar ideas are proposed by Jónasson in his research and combine future planning with decision-making in his approach to harmonizing HEIs in this aspect of challenging leaders (Jónasson, 2008). Whereas, Sayers in his study, found that scenario planning to evaluate future possibilities lacking and not being encouraged in HEIs (Sayers, 2010). However, Dopson et al, (2016), in

their review of HEIs literature realised that Leadership development and its effectiveness has not been explored in depth pragmatically.

In a survey conducted by Bacon, its findings relatively demonstrated that numerous academics across the UK (HEIs) today feel under-estimated and voice their concern as;

["...feel that their voices are not heard within their institutions. Universities' greatest resource – their highly educated, intellectually smart, often eloquent staff – remains underused in institutional decision-making. The notion that the staff body as a whole ought to have, indeed might usefully have, decisive input into key management decisions has died a death in most UK universities. A common complaint within the sector is of inappropriate change being imposed by managers (and by external bodies) against the advice of those who work at the academic frontline and to the detriment of their work in the core business of research and teaching,"]
(Bacon, 2014).

Research by Bryman investigated the styles, approaches, and behaviours to leadership related to HEIs effectiveness. The work concluded that styles and approaches to effective leadership in HEIs ought to require leaders and managers to acquire particular skills and standards as summarized below; (Bryman, 2007)

• Providing direction
• Creating a structure to support the direction
• Fostering a supportive and collaborative environment
• Establishing trustworthiness as a leader
• Having personal integrity
• Having credibility to act as a role model
• Facilitating participation in decision-making, consultation
• Providing communication about developments
• Representing the department/institution to advance its cause(s) and networking on its behalf
• Respecting existing culture while seeking to instil values through a vision for the department/institution
• Protecting staff autonomy

Figure 2: Components of effective leadership – adapted from (Bryman, 2007).

2.8 Developing and Training academic Middle Managers

A fundamental issue shaping the developing and training of academic MMs in HEIs today is that new managerialism is exerting pressures on academic MMs to perform efficiently, but, lacks formal training and development for their management role (Deem, 2000). In a series of multi-disciplinary studies by the same author, it was observed that new managerialism perceptions had been adopted by UK universities, especially concentrating on issues related to academic managers. The research, which generated several subsequent publications by Deem and co-authors (Deem et al 2000; Deem, 2001; Deem, 2002; Johnson and Deem, 2003; Deem, 2003a; Deem, 2003b; Deem, 2004), consisted of focus group discussions with academics from various disciplines and interviews with 135 manager–academics and 29 senior administrators in 12 “pre” and “post-1992” universities. The results showed that only one third of the total sample had received any formal training for their management role. It was found that the academic MMs had current working lives involving long extended hours

packed with meetings, excessive paperwork and endless search for surplus resources. The findings also branded an audit culture at the departments, rising student numbers and tensions between teaching and research. In relation to a similar situation, Rhudhumbu in his study stated that the role of an academic MMs is still a misunderstood manifestation and the essence of the respective role of an academic MMs still gravitates between managerialism and collegiality (Rudhumbu, 2015). Similarly, Smith acknowledged inadequate training and non-existent job descriptions were also an off-putting factor especially in the Chartered (pre-1992) universities. Also, these aspects were causing stress, whereas the Aacademic MMs in the statutory ("post-1992") universities suggested the key problem was the scale of the role in terms of department size, with general agreement that departments were too extensive to be administered successfully by an individual (Smith, 2002: 296).

A case study by Hotho, titled "*Higher Education Change and its Managers: Alternative Constructions"* involving 10 academic MMs at head of school/department level appliedsemi-structured interviews lasting approximately 2 hours each, which were recorded, transcribed and analysed by thematic content analysis to explore their management practice in the context of ongoing change. The findings expressed that "most academic MMs were still rooted in the world of traditional academia. Academic MMs were seen as sceptical of change management initiatives coming from the midpoint as these appeared to clash with Academic MMs seeming inclination for academic independence (Hotho, 2013). Themes discovered in the study of becoming a manager who manages academics suggested that none of the interviewees had *wanted the job*. One interviewee simply stated that "*I hate it"* meaning the job. Whereas other participants believed that current changes in HEIs got in the way of their teaching and research. Hence, measures in development and training for change in the role of academic MMs need to be addressed by HR in such institutions.

On the comparable topic on change, Bird suggests that it's crucial to build a conceptual framework which theorises the reflective practices supporting academic MMs in understanding and facilitating large-scale change management projects in HEIs. The development of a conceptual model to harness with local environments enables deeper understanding and better-informed decision-making, therefore, providing the need for HEIs managers to conceptualise their

own circumstances by taking account of local organizational norms and culture to better recognise and manage challenging change projects. In conclusion to the study, it was suggested that practical theorising can (re-)structure a difficult condition and back academic MMs through the emotional and political challenges of organizational change (Birds, 2014). Lack of clear strategic direction from senior management and, poor communications are additional considerations which require HR departments to tackle by means of development (Beech and Macintosh 2012).

2.8.1 General development in HEIs

In the modern setting of HEIs, how academics in different surroundings distinguish their various career orientations, trajectories and, interpretations, and position themselves relies on development and training. Archer, (2007) proposes that the social structures and situations provide a stage for academics to follow their personal projects, develop their social identity and personal skills. Universities whose vision and mission relates to the provision of HEIs education, development and training, have ironically infrequently empowered much in the development of their own staff. However, on the contrary, in the past Leadership and Management developmental training was minimal or non-existent (Bull, 1994).

In a research by Smith, the author confirmed that the greatest number of Heads of Department (HODs) encouraged training and development on personnel management and financial management. his findings concluded that staffing issues and managing finances were challenging and the fundamental causes of stress (Smith, 1996). Furthermore, the staff in HEIs regard being a role of senior manager as very demanding and immensely time-consuming that requires time management development (Grummell et al., 2009).

Brew and associates' research on "*research productivity and academics conceptions of research",* found that in HEIs, the demographic aspects and the social pyramids in which academics operate advance an atmosphere for the development of research and research skills within universities. The study provided mixed results and found that in HEIs today, direct and indirect information about research, teaching, administration, and community service was available. Also, advisories on what academics should pursue and how to

accomplish their goals is positive for HEIs. Additionally, the research found that academics' conceptions of the environment they are in, and of their own goals and capabilities create value for both the individual and the HEI. However, the academics' understanding of research in relation to their research productivity needs development in most cases for the benefit of themselves and of the institutions. Academics having a flexible personality was crucial to the success of HEIs. (Brew et al, 2016).

Furthermore, in 2011, the UK's Higher Education Academy (HEA) discharged the revised UK Professional Standards Framework (UKPSF) for teaching and supporting learning in higher education (HEA, 2011). The framework is a part of transforming sector-wide professionalization of teaching and support for learning in UK HEIs, ensuring that staff acquire certified teaching qualifications, a step seen by many as key to enhancing the student experience. However, a recent review of the UKPSF carried out for the HEA inferred the framework impact on the sector was to support the promotion of professional development frameworks in HEIs. But it uncovered a significant degree of unfamiliarity about the framework itself even amongst staff who had embarked on development mapped against it (Turner et al., 2013). Hence, development of HEIs staff via courses in relation to such elements needs provision.

In a combined project by the Quality Assurance Agency (QAA) and National Union of Student (NUS), the findings demonstrated students urging their academic staff to develop their respective teaching styles to be more engaging, interactive and use latest technology to make studies more motivating and appropriate. Another student demand was lecturers to have an active learning style and teaching skill developed. 34% of students researched for the study expressed and anticipated their lecturers to have better teaching skills (QAA & NUS, 2012).

Various diverse theories exist in the literature regarding development training which is emerging in HEIs. In 2015, a ground-breaking article was published entitled, "*when worlds collide identity culture and the lived experiences of research when teaching led"*. The paper underlined its findings and aired that HEIs often recruited staff with non-traditional backgrounds from within the professions (e.g. from schools and colleges without doctorates) demonstrated

low levels of research confidence, poor research networking, and dire need for research mentoring and supportive interactions with others (Sharp et al 2015). Besides, Dinkelman et al. (2006) proposed a projection of HEIs, for example, where teachers initiating careers from schools and colleges ought to experience a *dual transition*; that is, from teacher to lecturer and lecturer to academic, the latter with a more developed academic identity. Without both entities, individuals or groups may become organizationally rather than academically socialized.

Williams et al (2016), in their study expressed that staff development initiatives assisted staff to explore and develop their own teaching philosophy, new practices and sharing and learning from others. However, it was found that a staff individual's mind-set, beliefs and attitudes were found to be a challenge in itself. The study highlighted that teachers can develop around the various aspects of stimulating teaching by support from senior leadership and HEIs positive culture.

In a Higher Education Review by a multiple group consisting of representatives of the former Higher Education Funding Council for England, Universities UK, GuildHE and Association of Colleges found that the two key themes happening in the academic year 2015-16 were Student Employability, and Digital Literacy. (Review, H. E., 2015).

The table below showcases a synopsis of pertaining issues in HEIs discovered during the literature review and presented as a theoretical framework.

Table 1: Themes underpinned from current literature review and for further investigation

Higher Education Structures and Systems (HEIs)
1. Modern structures of HEIs are immensely directed by tougher rules, regulations and governance (Kubler and Sayers, 2010)
2. HEIs dynamic staffing and hierarchical models (HEFCE, 2010)
3. HEIs getting tougher and ignorant in general. Academic MMs mainly not present in decision-making (Jónasson, 2008)
4. The Academic MMs role is complex and ambiguous. Academic MMs acting as change agents represented in HEIs. HEIs Highly influenced by bureaucratic structures (Conway and Monks, 2011)
5. Academic MMs venture into HEIs based on their personal and professional circumstances especially for academic managers who consider elements such

as, rewards, socializations, bureaucracy, loyalty and accountability. However, Academic MMs are faced with massive pressures in their roles. (Floyd, 2012)

6. Employability in HEIs is also established on fixed term contracts (Collinson, 2004)

7. Poor strategic direction from top levels in HEIs. Deficiency in communication and methods to comprehend the excess innovation and disruptions in HEIs (Beech and Macintosh 2012)

8. Emergence of excessive innovation and disruptions in HEIs (Chater, 1998)

9. In 1960s after the Robins Report, highlighted that HEIs and Colleges should be expanded and given university status i.e. Pre-1992 Universities (Plate Glass Universities) and post-1992 Universities - former polytechnics (Thomas, 2014)

10. In addition to the global financial crisis. The dynamic advancements in technology require more development and training. Intensification in local and international students' competition putting more pressure in HEIs. Subsequently, funding and staff management another key issue (Bolden et al, 2015)

Changes and Challenges in Higher Education Institution (HEIs)

11. Current changes and challenges experienced by Academic MMs working in HEIs incorporated in issues such as mistrust, lack of collegiality, heavy workloads, losing self-identity especially for academic managers (Trowler, Ashwin, and Saunders, 2014)

12. Inception of new Teaching Excellence Framework (TEF) awards based on university rankings aimed at distinguishing and rewarding excellence in teaching and learning in HEIs. Besides, the new TEF to abet prospective students various choices about HEIs. The TEF based on voluntary participation and individual HEIs determines whether they wish to be accredited or not. Awards based on Olympic style Gold, Silver or Bronze (HEFCE, 2017)

13. Introduction of student tuition fees after Dearing Report (HEFCE, 2009)

14. Quality teaching for all types of students studying in HEIs improvement via the Teaching Excellence Framework (HEFCE, 2017)

15. The demanding role of Academic MMs required support and attention. Consequently, years of research scrutinizing organizational change and processes, offered no total solution to a grounded theoretical approach (Conway and Monks, 2011)

16. Widening participation in UK HEIs at both undergraduate and graduate levels in management programmes challenging professionals and ensure students' progression, retention and sustain overall professionalism (Hazzard and Nwagbara, 2016)

17. The Governments former body, HEFCE, changed name and is now called Office for Students (OFS), which is the new regulator of HEIs in England, and Research England, the new council within UK Research and Innovation, developed the knowledge exchange framework, which is intended to support the Government's

Industrial Strategy 'Building a Britain fit for the future' in November 2017. The framework plan is for the strengthening of efficiency and effectiveness in use of public funding for knowledge exchange Framework (KEF) HEFCE (2018)

18. Leading Higher Education. Challenges for leadership in higher education. Lack of financial (and other) resources, changes in government policy, increasingly competitive markets and the need for a global perspective Peters and Ryan (2015)

Roles and Careers Trajectories

19. Another dimension of Academic MMs is being career track managers who come into HEIs and shadow the trajectory path of advancing in careers via promotions, opportunities and step_ up_ the_ ladder approach (Currie et al, 2008)

20. Middle manager role is ambiguous and perceived as change agents within public services. This phenomenon is distant from the concept of managers to manage alone and leaders to lead. Government transformations influence the HEI environment and Academic MMs roles are pressurized even more (Gatenby et al, 2014)

21. Misunderstanding the true Academic MMs role that is still a spectacle and drifts between managerialism and collegiality (Rudhumbu, 2015)

22. Career trajectories. Journey to Leadership for Academics in Higher Education (Inman, 2011)

Management and Leadership Development and Practice

23. Introduction and evaluation of New public management (Hood, 1991)

24. HEIs descriptive roles and skills enhancement for Academic MMs to enhance their leadership to enable effectiveness and efficiency in their work environment (Bryman, 2011)

25. Change management practice and processes can be defined by designing conceptual models in HEIs so as to understanding the contexts, decision-making processes and assessing HEIs cultures (Birds, 2014)

26. Leadership role success in the public sector is founded on achieving and restructuring of public services delivery, allowing 'leaders to lead' and 'managers to manage' by implementing local solutions (Goldfinch and Wallis, 2010)

27. Lack of decision-making processes for Academic MMs. Majority of academics feel pressurized and ignored as an HEI resource despite being educated, intellectual and eloquent. Academic MMs feel they are underused in institutional decision-making (Bacon, 2014)

28. Comprehension of Academic MMs role success in public HEIs by efficient leadership and management practices (Goldfinch and Wallis 2010)

29. Leadership development and its effectiveness has not been explored in depth pragmatically (Dopson et al, 2016)

Governance and Policies, Accountability Responsibility and Reporting, Bureaucracy

30. Academic MMs constrained by various income pressures, to work efficiently and effectively and, are tightly held accountable and need to demonstrate transparency (Vincent, 2004)

31. Implementation of quality assurance in HEIs in all magnitude (Hoech, 2006)

32. Academic MMs required to respond more and more on accountability and transparency (Watson, 2011)

33. Paced policy changes in HEIs (Stanfield, 2011)

34. New higher education research bill (BIS 2016)

35. Academic MMs venture into HEIs based on their personal and professional circumstances especially for academic managers who consider elements such as, rewards, socializations, bureaucracy, loyalty and accountability. However, Academic MMs are faced with massive pressures in their roles (Floyd, 2012)

36. The new research bill has included aspects for local and international student choices, top education governed by relevant policies and regulation. Promote UK to become world leader in innovation and research (BIS, 2018)

37. Academic MMs are under the spell of new managerialism or bureaucracy. Academic MMs becoming entrepreneurial managers and leaders (Currie et al. 2008)

38. Rewards are limited in HEIs that are becoming more and more bureaucratic. Teaching and research in HEI exerting pressures especially for Academic MMs who are academics. The Academic MMs roles don't balance with rewards offered for the Academic MMs position. Hefty workloads comprising of management and bureaucratic work instead of more teaching and research activities for head of departments (Floyd, 2012)

39. Limited formal training and development for Academic MMs in updated bureaucratic structures full of pressures. However, training and development deficient for the management roles. Academic MMs lives are routinely based full of long extended hours. Related meetings, unimaginable paperwork and resource hunters. increase in inspection and scrutiny culture at the HEIs. To add, immense student numbers and difficulties between teaching and research (Deem, 2000)

Training and Development

40. in a study conducted by Chartered Management Institute (CMI), it was found out that HEIs need to rethink their approach to developing Academic MMs and that only 3 out of 17 Academic MMs (17.64%) at one University had received any training before taking on management roles (CMI, 2016)

41. Inadequate training and development for Academic MMs. Additionally, non-existence of proper job descriptions. Under-staffing failure for departments (Smith, 2002)

42. Social structures and situations provide a stage for academics to follow their personal projects, develop their social identity and personal skills. Universities whose vision and mission relates to the provision of HEIs education, development and training, have ironically infrequently empowered much in the development of their own staff (Archer, 2007)

43. Heads of Department encourage HEIs to provide most desired training and development in form of 'personnel management' and 'financial management'. However, research findings concluded, staffing issues and managing finances were challenging and the fundamental causes of stress (Smith, 1996)

44. Senior manager roles in HEIs are very demanding and immensely time-consuming which require time management training (Grummell et al., 2009)

45. Development of research and research skills within universities. academics having a flexible personality is crucial to the success of HEIs (Brew et al, 2016)

46. Revised UK Professional Standards Framework (UKPSF) for teaching and supporting learning in higher education (HEA, 2011)

47. A significant degree of unfamiliarity about the framework itself even amongst staff who had embarked on development mapped against it (Turner et al., 2013)

48. In a joint study by Quality Assurance Agency (QAA) and National Union of Student (NUS), students demand lecturers should have an active learning style and teaching skill developed (QAA and NUS, 2012)

49. HEIs staff with non-traditional backgrounds from within the professions (e.g. from schools and colleges without doctorates) demonstrated low levels of research confidence, poor research networking, dire need for research mentoring and supportive interactions with others (Sharp et al 2015)

50. Teachers beginning careers in HEIs from schools and colleges ought to experience a 'dual transition'; that is, from teacher to lecturer and lecturer to academic, the latter with a more developed academic identity. Without both entities, individuals or groups may become 'organizationally' rather than 'academically socialized' (Dinkelman et al., 2006)

51. Leadership and Management development and training was minimal or non-existent (Bull, 1994)

52. Staff development initiatives assist staff to explore and develop their own teaching philosophy, new practices and sharing and learning from others. Teachers can develop around the various aspects of stimulating teaching by support from senior leadership and HEIs positive culture (Williams et al 2016)

53. In addition to the global financial crisis. The dynamic advancements in technology require more development and training. Intensification in local and international students' competition putting more pressure on HEIs. Subsequently, funding and staff management is another key issue (Bolden et al, 2015)

54. Development and training of teaching staff in HEIs require support (Lunt, 2008)

55. Limited formal training and development for Academic MMs in bureaucratic structures full of pressures. However, training and development deficient for the management roles. Academic MMs lives are routinely based full of long extended hours. Related meetings, unimaginable paperwork and resource hunters. increase in inspection and scrutiny culture at the HEIs. To add, immense student numbers and difficulties between teaching and research (Deem, 2000).

Globalisation and International Outlook, Competition, League Tables

56. Dependency on universities rankings and league tables (Cowen, 2007)

57. Size, locations, genders, changes in student type, and variations by region and international student mobility (Altbach, Reisberg, and Rumbley, 2009)

58. Fabricated world class: global university league tables, status differentiation and myths of global competition (David, 2016)

59. Higher Education: Students at the Heart of the System analysis of the Higher Education White Paper (Thompson and Bekhradnia, 2011)

60. Higher Education Future: Key Themes and Implications for Leadership and Management (Kubler and Sayers, 2010)

61. Accountability, transparency, redundancy: academic identities in an era of excellence (Watson, 2011)

62. Guiding UK higher education and partnerships for overseas universities (Baskerville and Saunders, 2013)

HEIs Resources and Technological Advances

63. Leading academic talent to a successful future: Interviews with leaders, managers and academics (Tysome, 2014)

64. Prevailing Technological advances, it has become essential for development of Academic MMs in Information Technology (Cooke, 2008)

65. Futuristic Scenario planning (Huisman, 2012)

66. International competition, reduced financial resources, research assessment frameworks, rankings (Monica et al., 2014)

67. Review of information about learning and teaching, and the student experience. Learning resources to reflect technological advances since 2005 and changes in students' expectations of the support they will receive in this area HEFCE (2016b)

Student Experiences and Choices

68. Escalation in student populations and demographic data has put more pressures on Academic MMs in HEIs (Altbach, Reisberg, and Rumbley, 2009)

69. Browne Review suggested that various factors such as; HEI investment, offering students varied educational choices, widening participation for students. Flexible

fees payments plan amidst structured affordability. Part time and full-time costs in learning to be priority and implemented in HEIs (Browne et al., 2010)

70. Higher Education Review by multiple group consisting of representatives of former Higher Education Funding Council for England, Universities UK, GuildHE and Association of Colleges found that the two key themes happening in the academic year 2015-16 were Student Employability, and Digital Literacy (Review, H. E., 2015)

71. Dearing Committee report. Student numbers increase & funding problems. Expansion and maintenance of academic standards. expansion of sub-degree courses. Training of teaching staff (Lunt, 2008)

72. National Student Survey (NSS) a body that provides a recognised set of information which drives and monitors improvement in the student academic experience and helps prospective students make informed choices (NSS survey 2016)

The following table presents 9 key themes uncovered during literature review alongside associated authors.

Table 2: Key themes and the associated authors

Themes	**Authors**
Higher Education Structures and Systems (HEIs)	(Kubler & Sayers, 2010) (HEFCE, 2010) (Jónasson, 2008) (Conway and Monks, 2011) (Floyd, 2012) (Collinson, 2004) (Beech and Macintosh 2012) (Chater, 1998) (Thomas, 2014) (Bolden et al, 2015)
Changes and Challenges in Higher Education Institution (HEIs)	(Trowler, Ashwin, & Saunders, 2014) (HEFCE, 2009, 2017) (Conway and Monks, 2011) (Hazzard, M., and Nwagbara, U., 2016) (HEFCE, 2018) (Peters, K., & Ryan, M. K., 2015)
Roles and Careers Trajectories	(Currie et al, 2008) (Gatenby et al, 2014) (Rudhumbu, 2015) (Deem, 2004) (Inman, 2011)
Management and Leadership Development and Practice	(Hood, 1991) (Bryman, 2011) (Birds, 2014) (Goldfinch and Wallis, 2010) (Bacon, 2014) (Goldfinch and Wallis 2010) (Dopson et al, 2016)

Governance and Policies, Accountability Responsibility and Reporting, Bureaucracy	(Vincent, 2004) (Hoech, 2006) (Watson, 2011) (Stanfield, 2011) (BIS 2016) (Floyd, 2012) (BIS, 2018) (Currie et al. 2008) (Deem, 2000, 2001, 2002, 2003, 2004)
Development and Training	(CMI, 2016) (Smith, 2002) (Archer, 2007) (Smith, 1996) (Grummell et al., 2009) (Brew et al, 2016) (HEA, 2011) (Turner et al., 2013) (QAA & NUS, 2012) (Sharp et al 2015) (Dinkelman et al., 2006) (Bull, 1994) (Williams et al., 2016) (Bolden et al, 2015) (Lunt, 2008) (Deem, 2000, 2001, 2002, 2003, 2004)
Globalisation and International Outlook, Competition, League Tables	(Cowen, 2007) (Altbach, Reisberg, and Rumbley, 2009) (David, 2016) (Kubler, J., & Sayers, N., 2010) (Baskerville, S., MacLeod, F., & Saunders, N., 2013)
HEIs Resources and Technological Advances	(Cooke, 2008) (Huisman, 2012) (Tysome, 2014) (Monica et al., 2014) HEFCE (2016b)
Student Experiences and Choices	(Altbach, Reisberg, and Rumbley, 2009) (Browne et al., 2010) (Review, H. E., 2015) (Lunt, 2008) (NSS survey, 2016)

2.9 Themes emerging from Literature Review

From the literature review, we can conclude that, it is a huge challenge for the academic MMs to navigate smoothly in the modern HEI which are complex systems to understand completely. Therefore, relevant development is required to support the academic MMs in their roles throughout their careers.

To focus on HEIs debated topic, a flashback into HEIs history shows that just after few years of transition of HEIs and birth of post-1992 universities from

colleges to degree awarding powerhouse, a concluding statement from Chater (Chater, 1998) is necessary who laments "…there is too much innovation and disruption in HEIs" […] in the author's own words he states…

"The feeling is widespread among university staff that there has been too much innovation and disruption for too long. Indeed, 15 years ago Mark Chater, in back-handed acknowledgement of Charles Handy's lauded book Gods of Management (1978), identified Systemania, the cult of constant change, as one of the "gods of mismanagement" in the UK higher education system. "In the cult of Systemania … every New Year brings a new system … she brings exhaustion as her changes exceed human speed and defeat human rationality."

2.10 Summary of Chapter 2

This section sets the foundation for the preliminary study with the introduction to UK Higher Education Institutions (HEIs) and their changing environment. Following that, a definition of Middle Managers in HEIs and the impact of the changes and challenges to their roles is shown. Leadership and Management in HEIs is discussed in relation to the development needs of academic MMs working in the complex setting of HEIs. Based on the literature review, the fundamental research question of this research investigates "*What are the current developmental needs of academic MMs working in HEIs based on evidential assessment?* ". In conclusion, the main emergent themes from the critical literature review (theoretical framework) are displayed below that require further investigation using the methodology discussed in the next chapter.

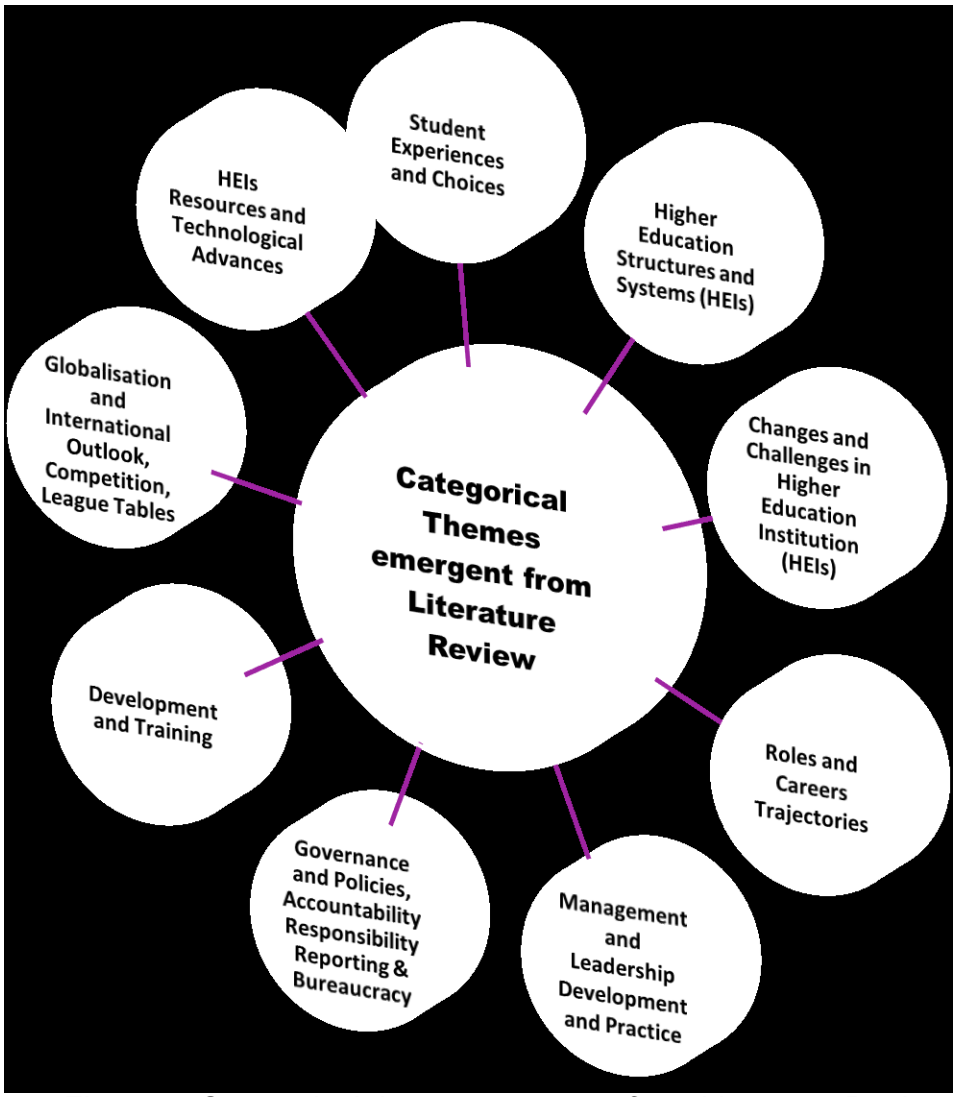

Figure 3: Categorical themes emergent from Literature Review

CHAPTER 3. METHODOLOGY

3.1 Chapter 3 overview

This chapter describes the overall Research Methodology in detail and focuses on the Research Framework/Plan, ethical approval, research process, methodology and its execution. It encompasses the various elements of the research including; philosophy, approach, strategies, choices, time-period and techniques and procedures.

3.2 Research Framework/Plan

Research framework is an interpretation of how a research project evolves in a logical flow. It depicts different stages of the research and methodology followed to bring the final research output. The first step in this research was to identify the research problem, aim and objectives defined in (Chapter 1). The second step involved carrying out a comprehensive literature review highlighting key components related to MM developmental theory alongside seminal authors and their contributions (Chapter 2). The next step incorporated methodological influence together with how research could proceed, hence, research was feasible and established in three phases, namely; phase one conducted a qualitative pilot study (Chapter 4), phase two examined on 23 qualitative semi-structured interviews, case studies and grounded theory (Chapter 5), while phase three encompassed a quantitative survey questionnaire (Chapter 6). phase one unit of analysis incorporated perceptions from an Emeritus professor and developmental needs provider working in a post-1992 University. Their opinions were collected in order to amalgamate and compare with theories from the literature review in order to devise an interview protocol for the academic MMs in semi-structured interviews. Furthermore, phase two elaborated on the qualitative part of the project by using appropriate methods (semi-structured interviews, grounded theory, case studies). The unit of analysis were 23 academic MMs working at a post 1992 University in four different roles namely; Deans, Head of Dept./School Directors, Subject Heads and Principal/Senior Lecturers. Rich and detailed data analysis was conducted on the semi-structured interviews that had lasted approximately an hour each. However, audio analysis validation was integrated with the main semi-structured interviews. Also, for the qualitative phase cases were steered at 3 different levels of one macro case, one meso case and 23 embedded micro cases. Phase three proceeded with the quantitative part of the research. Construction of a survey measuring tool was formulated internally

and tested twice at the same post-1992 university via pilot studies. A final survey questionnaire was designed targeting the academic MMs cohort at 141 UK Universities consisting of Deans, Head of Dept./School Director, Subject Heads and Principal/Senior Lecturers. All the respondents externally were approached at intervals in 141 different UK Universities. Personal invitations for survey participation were sent to academic MMs at these institutions with a cumulative total of n=2,035. There was a return rate of approximately 10% with 166 academic MMs responding. However, this was the number of fully completed forms. The final plan for the research was model development through analysis, testing and construction of the concluding conceptual model. Chapter 8, the research implications to originality/contribution to theory, practice and research is also discussed together with reflections and research limitations. Finally, the study conclusions and recommendations were made. The following diagram represents the research framework/plan for this project.

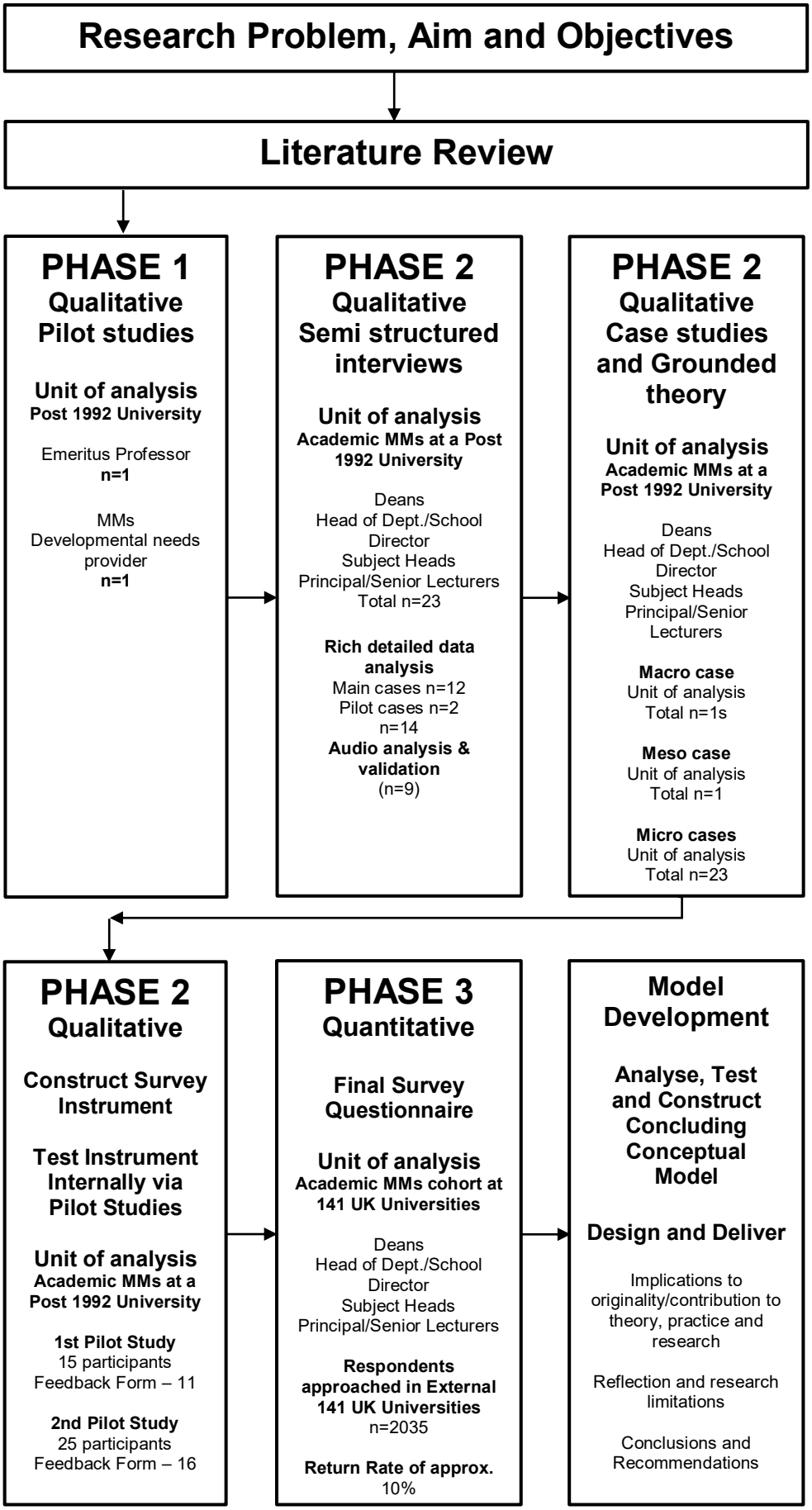

Figure 4: Research Framework and Plan

3.3 Ethical Approval

Prior to conducting a research, it is crucial to have achieved Ethical approval from the concerned authorities. Ethical issues can and invariably do arise at all stages of the research process (Bryman 2012c). Based on this notion, it is fundamental for a researcher to measure and cover all possible angles that can create issues, hence, prior to commencing this research, ethical approval was sought from a post-1992 University Research Ethics Committee and successfully endorsed with reference number 16/BUE/003.

3.4 The Research Process

In his introduction to the research process, Kumar, (2011) identifies eight steps in the research process. Each step of the research model provides a variety of methods, models, techniques, and procedures, so a researcher can select the one most appropriate for study. The eight steps as seen in the diagram below, cover the total spectrum of a research undertaking, from problem formulation through to writing the final research report. The steps are operational in nature, following a logical sequence, and detailing the various methods and procedures in a simple step_by_step manner and have highly influenced this research project and using research advise by (Saunders et al., 2012).

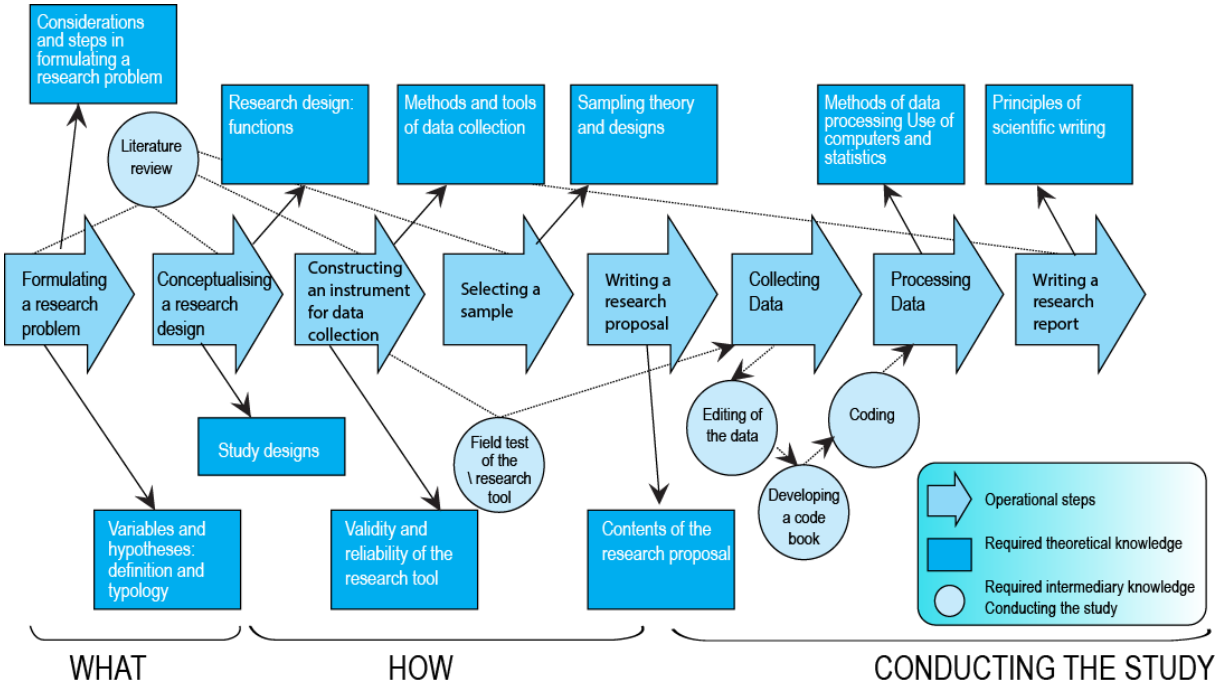

Figure 5: The Research Process – Adapted from Ranjit Kumar 2011 (p 21).

3.5 Research Methodology using Saunders Onion

Research Methodology is defined as the criterion theory of how research should be accomplished and incorporates the theoretical and philosophical assumptions upon which research is based, also, the implication of these for the method or methods adopted (Saunders et al., 2012). This research accentuates the realization presented by Saunders et al via their emphasized research onion. The philosophical stance embraced is positivism with a mainly inductive approach to answering the research questions. A choice of mixed method design is implemented with the research strategies focused on grounded theory generation (Miles and Huberman, 1994), case studies (Yin, 2009) and survey questionnaire design (Oppenheim, 1992). Furthermore, pilot studies (Bryman, 2012) and quantitative data analysis (Fields, 2009a) were embarked upon. Research techniques and procedures accompanied bysemi-structured interviews (Kvale and Brinkmann, 2009), case studies, pilot studies, and survey questionnaire as mentioned. Time horizon for the project was cross-sectional in nature spanning for almost 4 years.

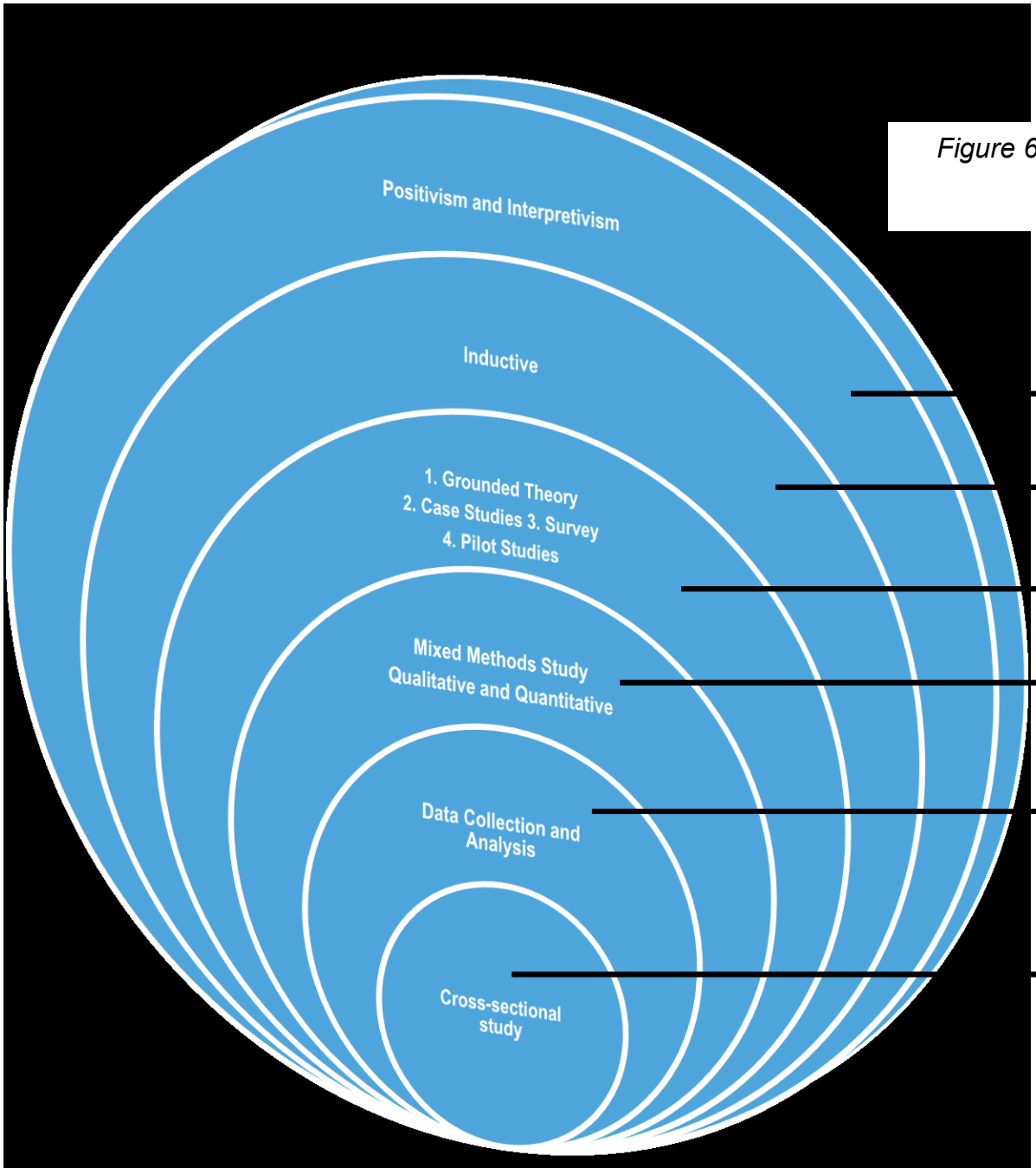

Figure 6: Research Onion adapted using principles of Saunders, et al 2012 (p.160)

3.6 Research Philosophy

Research philosophy can be defined as the development of knowledge by a researcher based on three fundamentals namely; epistemology, ontology and axiology. Epistemology emphasizes the researcher's view regarding what constitutes acceptable knowledge, Ontology refers to the researcher's view of the nature of reality or being; and Axiology focusses on the researcher's view of the role of values in research carried out and its judgements. Every aspect of these contains fundamental differences which influence the contemplation about the research process (Saunders et al, 2009). However, researchers can employ one of the several types of methodologies that are based on the development of knowledge and the nature of that knowledge in relation to research (Saunders et al, 2012 and Hussey and Hussey, 1997). Though there are several forms of philosophies as seen in the research table below, the fundamental research philosophy for this project relied on the positivistic approach of step-by-step scientific methodology of exploration. In formality, Positivism can be defined as the epistemological position that supports working with an observable social reality. The emphasis was superiorly placed on the structured methodology to facilitate reproduction, and the end product which were law-like generalizations related to those in the field of physical and natural sciences. The philosophy, hence, embarked on a positivistic/interprevistism stance in which research was based on the ontology which was both internal and external of HEIs in view of answering of the research questions. On the other hand, the Epistemology for the project focused on both observable phenomena and subjective meanings which provided acceptable knowledge in relation to the research question. However, the research focused on practicality and integrating different methods and perspectives to help interpret the data in both the quantitative and qualitative stages. Axiology for the positivistic approach relied on values which played a vital role in interpreting results harnessed in an objective view through conductingsemi-structured interviews, case studies, pilot studies and a comprehensive survey and synthesizing the methods and critically analysing the findings. Lastly, justifying it with the current literature and cross comparing with emergent findings of this research prior to reporting.

Table 3: Research Philosophy adapted from Saunders, et al 2012 (p 107-119)

RESEARCH PHILOSOPHY **Ontology:** the researcher's view of the nature of reality or being **Epistemology:** the researcher's view regarding what constitutes acceptable knowledge **Axiology:** the researcher's view of the role of values in research **Data techniques most often used:** Mixed or multiple method designs, quantitative and qualitative
Positivism **Ontology** External, objective and independent of social factors **Epistemology** Only observable phenomena can provide credible data, facts. Focus on causality and law-like generalizations, reducing phenomena to simplest elements **Axiology** Research is undertaken in a value-free way, the researcher is independent of the data and maintains an objective stance **Data collection techniques most often used** Highly structured, large samples, measurement, quantitative, but can use qualitative
Pragmatism **Ontology** External, multiple, view chosen to best enable answering of research question **Epistemology** Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focus on practical applied research, integrating different perspectives to help interpret the data **Axiology** Values play a large role in interpreting results, the researcher adopting both objective and subjective points of view **Data collection techniques most often used** Mixed or multiple method designs, quantitative and qualitative
Realism **Ontology** Is objective. Exists independently of human thoughts and beliefs or knowledge of their existence (realist), but is interpreted through social conditioning (critical realist) **Epistemology** Observable phenomena provide credible data, facts. Insufficient data means inaccuracies in sensations (direct realism). Alternatively, phenomena create sensations which are open to misinterpretation (critical realism). Focus on explaining within a context or contexts **Axiology**

Research is value laden; the researcher is biased by world views, cultural experiences and upbringing. These will impact on the research **Data collection techniques most often used** Methods chosen must fit the subject matter, quantitative or qualitative
Interpretivism **Ontology** Socially constructible subjective, may change, multiple meanings and understandings on social and experiential levels. **Epistemology** Subjective meanings and social phenomena. Focus upon the details of situation, a reality behind these details, subjective meanings motivating actions **Axiology** Research is value bound, the researcher is part of what is being researched, cannot be separated and so will be subjective **Data collection techniques most often used** Small samples, in-depth investigations, qualitative

3.7 Research Approach

We can classify the research direction into three main research approaches: abduction, deduction and induction. Saunders describes two approaches in his famous research methods book, namely deduction and induction. The deduction approach consists of a theory and hypothesis (or hypotheses) which is developed, and a research strategy designed to test the hypothesis. In the induction approach, data is collected, and a theory developed as a result of the data analysis (Saunders et al, 2009). Furthermore, a researcher doesn't commence a study with a clearly defined theoretical framework but contrarily identifies relationships between the data and develops questions and hypotheses or propositions to test these. The theory emerges from the process of data collection and analysis.

Inductive approach is time consuming and resource intensive which may utilize some elements of a deductive approach while developing a theoretical position tested with subsequent data collection and analysis of a researcher. However, while a researcher commences with either an inductive or a deductive approach, in practice the research likely combines elements of both these approaches (Saunders et al, 2008).

In contrast, abduction deals with the researcher grounding a theoretical understanding of the contexts and people being studied in the form of its language, meanings, and perspectives that influences a researcher's worldview. Furthermore, the research approach is a general term used for inductive or deductive methods which considers the nature of the relationship between theory and research, whether theory guides research i.e. known as a deductive approach whereas an inductive approach is the opposite of that (Bryman, 2012).

Therefore, though the initial stage of the research approach explored the research topic on the deductive method by carrying out two pilot studies and building a theoretical framework from critically examining the theories in contemporary literature in HEIs, the main focus of research relied heavily on inductive approaches during the data collection by using multiple methods of;semi-structured interviews, case studies, pilot studies, and survey questionnaire in which theory was developed from the data collected. This approach was realized in this research by reviewing the emergent themes in the data collected and establishing the patterns within the parameters. Subsequently, case cross comparing and testing with the findings from qualitative and quantitative methods was carried out before generating the final theory as a means of a conceptual model.

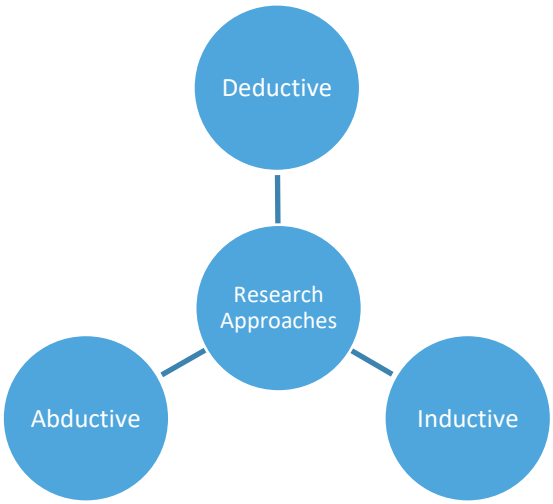

Figure 7: Research approaches adapted (Saunders et al, 2009 and Bryman 2012).

3.8 Research Choices – Mixed Methods approach

Mixed methods are a unique choice to assist in research. It provides researcher better opportunities to answering research questions. it eases the process of a researcher to better test the extent of research findings. Also, this ensures that the results are authentic, trusted and judgmental. (Tashakkori and Teddlie, 2003). There are two major benefits in choosing multiple methods in a research project. Firstly, different methods utilize different purposes in a study. For example, a researcher may conduct interviews at an exploratory stage in order to get a feel for the key issues, before, using a questionnaire to collect descriptive or explanatory data. This gives support and confidence to addressing the most important issues. Qualitative research usually stresses on words rather than quantification in the collection and analysis of data. Words and emergent themes play a role and basis for the research that may be used for drawing comparisons with conclusion from the quantitative methods in harmony. Based on these notions, the best way forward for carrying out this interesting research built on quality, high standards, minimum biases made appropriate and deliverable, was to choose a mixed methods design.

3.8.1 Qualitative research

Qualitative research is fundamental to gaining understanding of the research topic and contributing to comprehending a detailed view from emergent themes. This enhances the quality of the research. Some writers (e.g. Hiatt, 1986, Patton, 1990, Patton, 2001b, Dey, 1993, Harwell, 2011, Culén, 2010) have attempted to draw fine distinctions between what Qualitative research encompasses. A good definition of Qualitative research methods is described by Hiatt as; "*Qualitative research methods focus on discovering and understanding the experiences, perspectives, and thoughts of participants—that is, qualitative research explores meaning, purpose, or reality"* (Hiatt, 1986). In qualitative research, you are either exploring the application of a theory or model in a different context or are hoping for a theory or a model to emerge from the data. In other words, although you may have some ideas about your topic, you are also looking for ideas, concepts and attitudes often from experts or practitioners in the field (Culén, 2010).

Qualitative methods are regularly used in evaluations not to say that they can't be used in other dynamics. Typically, this is because they tell the programme story by encapsulating and communicating the participants' stories (Patton, 2001b). In his words, Patton highlights that "*there are no rules for sample size in qualitative inquiry. Sample size depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources"* (Patton, 1990, p180). In an investigation context, Qualitative analysis is fundamentally an iterative process, involving recurring returns to initial stages of the analysis as verification becomes more organized and ideas are clarified (Dey, 1993). However, for this project, the qualitative method of investigation collected data in the form ofsemi-structured interviews from 23 Middle Managers working at a post-1992 university. This approach confirmed the thematic findings and statements from the theoretical framework developed during the literature review and further informed and explored the themes for the quantitative phase. Furthermore, the data from semi-structured interviews gave an insight to current development issues faced by academic MMs at a post 1992 HEIs using various research strategies (grounded theory, case studies, and pilot studies). This also enabled linking and confirming the conclusions of the literature review together with the findings of the qualitative stage. The synthesized comparable results highly influenced the developing and testing of the survey questionnaire in quantitative stage both internally (pilot studies) and externally with 141 UK universities.

3.8.2 Quantitative research

Quantitative use of methods is described as concluding evidence for a proposed theory. This is achieved by measuring of variables that produce numeric outcomes with several tests conducted in SPSS i.e. parametric and non-parametric tests based on the questionnaire design (Fields, 2009b). Quantitative research contrasts with qualitative methods in that it is driven by objectivity in a scientific manner. Bryman expresses a similar view. The author comments on Quantitative research as a procedure highlighting on quantification by gathering and analysing the data. When practiced as a research strategy, it is objectivist and incorporates a natural science model of

the research process (one influenced by positivism) (Bryman, 2012b). Quantitative research methods endeavour to reach optimum objectivity, replicability, and generalizability of findings, and are naturally interested in prediction. As an important fundamental to concluding the approach for this project, the Quantitative research avenue was administered. This set aside any personal influence, perception, or bias appearing in the qualitative stage. The quantitative elements played a vital role in safeguarding objectivity in the conduct of the study and the conclusions that were drawn in the entire scenario. The researcher strengthened his project with these two ideologies. Harwell also expresses a similar and comparable view on Quantitative research signifying that the pivotal features of several quantitative studies are the adoption of instruments such as tests or surveys to collect data, and dependence on probability theory to test statistical hypotheses that match to research questions of interest (Harwell, 2011). In conclusion, quantitative research methods attempt to maximize objectivity, replicability, and generalizability of findings, and are typically interested in prediction. Integral to this approach is the expectation that a researcher sets aside his or her experiences, perceptions, and biases to ensure objectivity in the conduct of the study and the conclusions that are drawn. Therefore, the research proceedings in this project adopted both these crucial choices of Quantitative and Qualitative aspects abetting each other in mixed methodology design.

3.9 Research Methods, Techniques and Procedures for data collection and analysis

In relation to the evolving themes from systematic literature review (Literature review section) and theoretical framework derived thereof, the study focused on cross-analysis and merging concepts from the results obtained in the methods via the following unit of analysis in distinct methods and data collection techniques and procedures with participants. Namely with semi-structured interviews, case studies, grounded theory, pilot studies, and survey as shown in the overall research flow and plan Figure 4.

3.10 Overall Research plan and flow

The entire logical research flow and procedures are expressed for the entire project in Figure 4: Research Framework and Plan (author), highlighting the drivers for both qualitative and quantitative stages and its contents. The sample size in all the three phases is also reported upon therein. Furthermore, the different methods were reported with the various techniques used to collect the data and analysis.

3.11 Research methods table

The table below summarises the six research objectives for the study. The methods were spilt into three phases for the entire project. Phase one involved carrying out two qualitative pilot studies to build on the base of the research. Phase two incorporated carrying outsemi-structured interviews, grounded theory and case studies. Prior to phase three which involved the quantitative part of the study, pilot studies were embarked upon to fine-tune the survey questionnaire. The mixed methods followed a linear pattern of expanding on qualitative and quantitative research in a systematic manner i.e. qual_qual_quant carried out in three phases.

Table 4: Research objectives and methods in three phases

	Research Method	Research Method	Research Method	Research Method	Research Method
Research objectives	Phase 1 Qualitative Pilot Study 1 (n=2)	Phase 2 Qualitative semi-structured interviews (n=12) + (n=9) Kvale S., and Brinkmann S., (2009)	Phase 2 Qualitative post-1992 University Grounded Theory Case study-Individual Micro cases, Meso and Macro cases. Main (n=1) Embedded cases (n=12) + (n=9) Yin, R. K. (2009) and Yin, R. K. (2011)	Phase 3 Quantitative Pilot Study 2 (n=15) and Feedback Forms (n=11) Pilot Study 3 (n=25) and Feedback Forms (n=16) Managed in Bristol Online Survey (BOS) (Bryman, 2012)	Phase 3 Quantitative Survey Questionnaire Managed in Bristol Online Survey (BOS) Exploration and validation by external 141 HEIs (n=2035). Fully completed survey questionnaire forms (n=166) Approx. 10% return rate (Fields, 2009)
1. Structured a theoretical framework based on literature review and two pilot studies and devise a list of questions for data collection bysemi-structured interviews (Kvale and Brinkman, 2009).	●	●			
2. Carried out qualitative grounded theory data collection and analysis (Miles and Huberman, 1994) using the semi-structured interviews of academic staff (including Deans, Head of Dept. /School Director, Subject Heads and Principal/Senior Lecturers) at a post-1992 UK university.			●		
3. Transcribed the 14 out of 23 interviews in rich detail (verbatim format) and analysed and compared as case studies - macro, meso and micro cases (Yin, 1994) while remainder 9 interviews were audio verified that validated the findings.		●	●		

4. Prepared a survey instrument derived from the qualitative findings. Pilot tested initially survey questionnaire with 15 academic MMs. Analysed the 11 feedback forms and updated the changes in questionnaire. Conducted a 2nd Survey Pilot Study with 25 academic MMs and received 16 feedback forms (Bryman, 2012) and reflected on them.				●	
5. Made relevant changes and formulated the final survey questionnaire (Oppenheim, 1992). Disseminated the survey questionnaire externally to 2035 participants working in 141 UK HEIs. Received a total of 166 fully completed forms. Analysed and tested with quantitative data in SPSS (Fields, 2009).				●	●
6. Contributed to HEI environment by developing a conceptual model for impartial implementation by HR departments in HEIs to develop academic MMs using various methods and techniques.	●	●	●	●	●

3.12 Research Strategies

3.12.1 Case studies of a post-1992 University using micro, meso and macro levels within case; subcases; and cross case analysis.

Yin describes a case study as an empirical inquiry that examines a contemporary phenomenon in depth and within its real life. However, a perfect case study investigator should make a proper effort to develop a theoretical framework, no matter whether the study is to be explanatory, descriptive, or exploratory for research purposes. The use of theory is essential in doing case studies. Theory takes on the role of assisting and defining the most applicable research design and data collection. The same theoretical orientation also becomes the pivotal element for generalizing the results of the case study Furthermore, the four criteria for judging the quality of research designs according to Yin are: (a) construct validity, (b) internal validity, (c) external validity, and (d) reliability (Yin, 2009). However, Cases for study (e.g., people, organizations, communities, cultures, events, critical incidences) are chosen because they are *information rich* and clear cut in displaying manifestations

and demonstration of interest. Purposeful stratified sampling, then, is aimed at insight about the phenomenon, not empirical generalization from a sample to a population (Patton, 2001a). Hence, this was the highway adopted for this study with case studies analysed on micro, meso and macro levels.

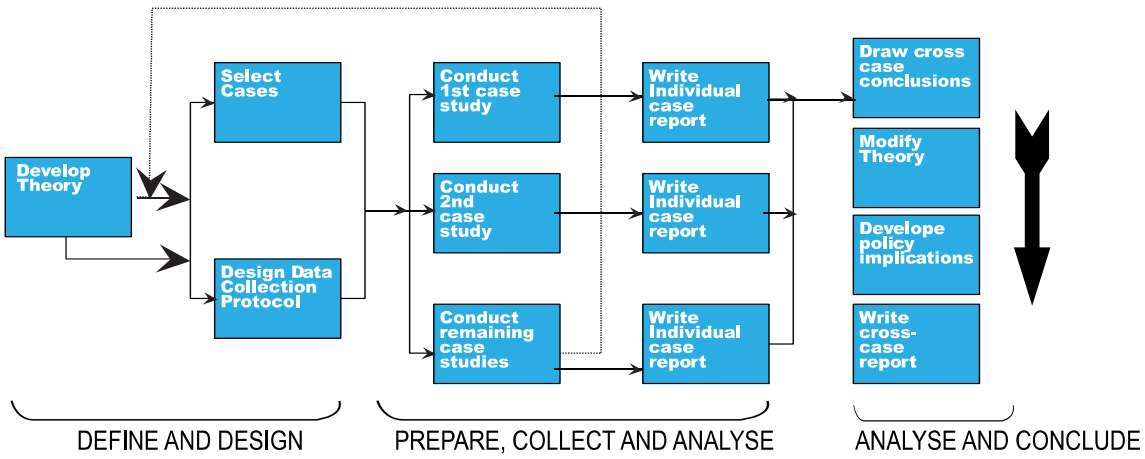

Figure 8: Case study strategies and methods. Cosmos cited in Yin 2009 (p. 57)

3.12.2 Grounded Theory

A considerable amount of literature has been published on grounded theory (Cresswell, 2007; Strauss and Corbin, 1994; Barney G. Glaser and Anselm L. Strauss, 1967; Charmaz, 2006; Charmaz, 2017; Igti, 2015; Dey, 1993; and Miles and Huberman 1994; and Miles and Huberman 1984). This study portrays grounded theory as one of the methods for accomplishing qualitative data analysis. Cresswell distinguishes five approaches to qualitative inquiry and research design that includes; narrative, phenomenological, ethnographic, grounded theory and case study research (Cresswell, 2007). Miles and Huberman (1984) accentuates on a technique called pattern coding of the collected data during analysis conducted in three main steps, namely: data reduction, data display and conclusions. The grounded theory approach of Strauss and Corbin, (1990) focuses on a variety of different strategies for coding data. Nevertheless, despite the differences in approach and language, the most common highlight is on how to categorize the data collected and formulating connections between the emergent categories. These tasks establish the pivotal point of qualitative analysis (cited in Dey 1993).

Additionally, grounded theory is a universal methodology for developing theory that is grounded in data scientifically gathered and analysed. The theory evolves from carrying out grounded theory strategies as the research goes through continuous interchange between analysis and data collection. A central feature of this analytic approach is as described by the founding fathers of grounded theory *Strauss and Corbin*, who describe it as a general method of [constant] comparative analysis and therefore the approach is often referred to as the constant comparative method. Furthermore, they propose that researchers should engage in concurrent data collection and analysis throughout the qualitative research. The authors highlight that from inception of the research process, the researcher should code the data, compare the data and codes, and identify the individual and core categories to develop by further data collection (Strauss and Corbin, 1994). Analogously, Charmaz suggests that grounded theory of a studied topic starts with concrete data and ends with rendering them in an explanatory theory (Charmaz, 2017). However, the author further suggests that many advantages of grounded theory if used as a method in research, increase flexibility and instantaneously gives a researcher more focus than many other methods. This theory guides processes during the research process such as coding, memo-writing, and sampling for theory development, and comparative methods are, in many ways neutral. Grounded theory methods can complement other approaches to qualitative data analysis, such as case studies, rather than stand in opposition to them and if used as mixed methods can produce strong research. grounded theory strategies help a researcher focus on analysis rather than on arguments about it (Charmaz, 2006). In conclusion, grounded theory can be described as is the systematic development of theory from the data through inductive or deductive approaches (Igti, 2015).

Below is a figure showing the data analysis stages and components suggested by Miles and Huberman which guided the grounded theory part of this research.

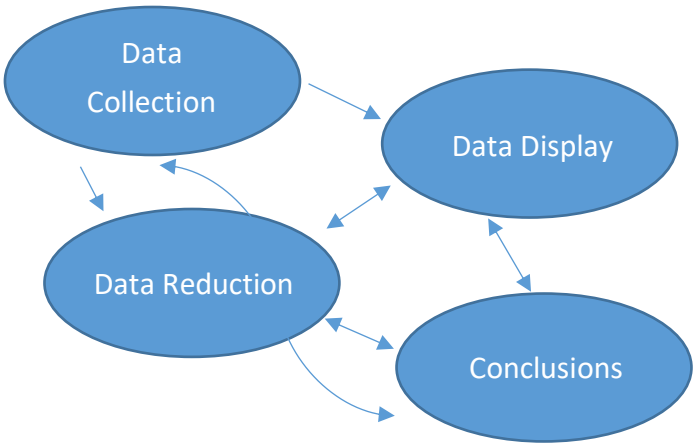

Figure 9: Data analysis stages and components adapted from Miles and Huberman (1994)

3.12.3 Survey Questionnaire

In his introduction to the topic of the design and implementation of survey questionnaires, Creswell (2003) in his study related that instrument development is an example of a logical approach by a researcher. A draft of an instrument (survey, test) is researched and piloted with a small number of participants who often provide important qualitative feedback about their experience with the instrument being tested. Following, Creswell mentions that appropriate modifications are placed on the instrument and then the instrument is used to collect quantitative data. The quantitative results are then expanded to modify, complement, and possibly extend the earlier pilot results. These steps have been applied in this research by executing the study further by use of a survey questionnaire as a validation process. The survey questionnaire was guided by the research questions and the data collection tool. Therefore, it sat between the research questions and the strategy and also the process of data collection. It focused on aspect of analysing its relationship to the research questions, besides, defining variables and where the questionnaire comes from. Also, it shows multiple-item scales and the role of pilot testing. In conclusion, Punch outlines the constraints and drawbacks within which the questionnaire must be developed and constructed in an orderly fashion (Punch, 2003). Questionnaire preparation must be done carefully so that it may prove to be effective and efficient in collecting all the relevant information (Kothari, 2004). The formulation of any questionnaire to

be used in a survey must be a key part of the research design stage. A questionnaire is not merely considered as a list of questions or a form to be filled in, but it is predominantly a measurement tool, an instrument for the collection of all kinds of data. Like all such instruments, the aims and specifications of a questionnaire stem directly from the overall research design and are vital for the research process as implemented.

3.12.4 Survey design strategies

Though there are various strategies that can be adopted, it entirely depends on the nature of the research which a researcher undertakes, especially in answering the research question/s. Oppenheim, (1992) suggests a unique 14 step-way to survey design strategies which has been implemented for this study. The first step to survey design is to decide on the aims of the study and, possibly, the theories to be investigated. The second step is to transform the general aims to be specific operationalized aims that includes specified sets of practical issues or hypotheses to be investigated. Followed by formulation of questions, scales and indicators. The third step is to review the relevant literature which aids the research topic and an overall conceptualization of the study, methods and its direction on fulfilling the research aims and objectives. The fourth step is deciding the design of the study and resources. The fifth step is to decide on which hypotheses will be investigated and listing the variables which will have to be measured. The sixth step is to design or adapt the essential research instruments and techniques to be used for example, postal questionnaires, interview schedules, attitude scales, projective methods, check lists or rating scales. The seventh step is carrying out the crucial pilot work and experiment with the research instruments, updating and making revisions where necessary. The eighth step is to design the sample representative of the research study. The ninth step is to draw the sample by selecting the people to be approached for the study. The tenth step is to carry out the field-work and collect data. The eleventh step is to process the data and coding the responses. This assists in preparing the data for analysis. The twelfth step is embarking on the statistical analysis simply at first but then more intensely and testing for statistical significance.

The thirteenth step is obtaining the results and testing the hypotheses. The last step is writing the research report by describing the results in words and tabulations, also, relating the findings to crucial research in the same area, drawing conclusions and interpretations.

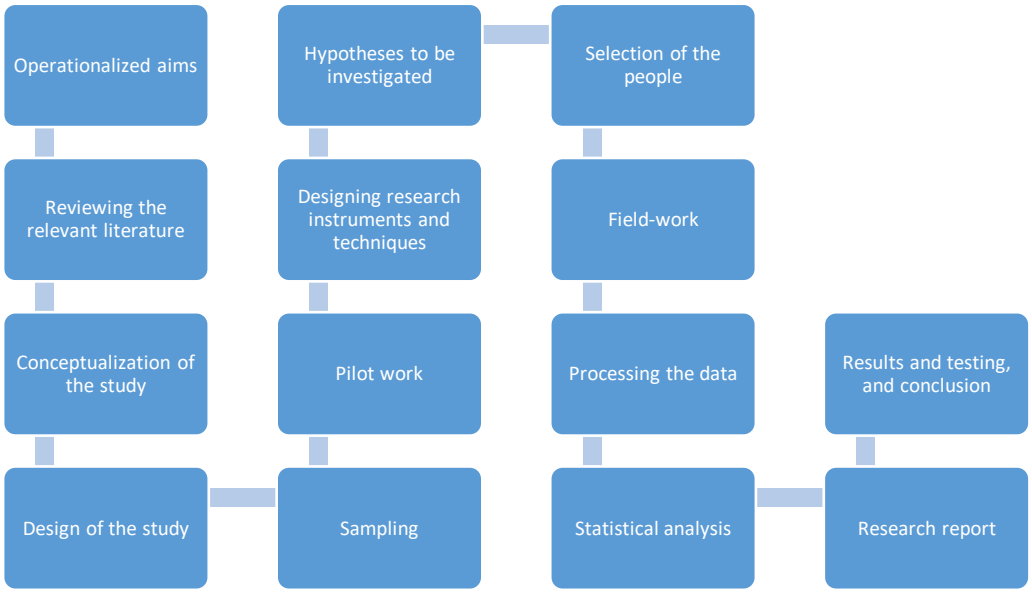

Figure 10: Steps in conducting survey design adapted from (Oppenheim, 1992, p.7-8)

3.13 Data Collection and Analysis

Data collection and analysis is the practice of gathering and measuring information on pursued data in an established systematic manner and thoroughly scrutinizing it. This technique enables the researcher to answer relevant research questions and evaluate outcomes. Data analysis can be termed as the process of examining, distilling, transforming, and modelling data with the goal of discovering useful and viable information. The process of data collection and analysis assists a researcher with his research findings, drawing conclusions, and supports him/her in decision-making. Furthermore, researchers process data and information by analysing the data set after its collection using one or many methods. Data analysis usually involves reducing amassed data to an orderly and manageable size, developing summaries, looking for patterns in data, and applying statistical techniques. Scaled replies on questionnaires and experimental instruments often require the researcher

to develop various functions, as well as to explore relationships among the variables (Cooper and Schindler, 2003). Researchers must interpret these findings considering the proposed research question or determine if the results are consistent with their hypotheses and theories.

According to Salthouse et al, greater progress can be harnessed if researchers distinguish potential limitations of all data collection and analysis methods available and endeavour to base conclusions on results from multiple methods of data collection and analysis whenever possible (Salthouse et al, 2011).

In conclusion, the interactive nature of data collection and analysis allows a researcher to identify important themes, patterns and relationships as one collect data which emerges from the process of data collection and analysis. Then, a researcher can re-categorize their existing data to understand whether these themes, patterns and relationships are present in the cases where they have already collected data. This technique enables a researcher to adjust future data collection and perceive whether data exists in other methods one intends to conduct in their research (Strauss and Corbin 2008, cited in Saunders et al, 2008). In a similar perspective, Yin describes data collection methods for qualitative research in four different aspects against the illustrative types of data and their examples.

Table 5: Collection methods for qualitative research adapted from Yin, R. K. (2011). p.131

Data collection method	**Illustrative types of data**	**Specific examples of data**
Interviewing and conversing	Language (verbal and body)	Another person's explanation of some behaviour or action; a recollection
Observing	People's gestures; social interactions; actions; scenes and the physical environment	Amount and nature of coordination between two people; spatial arrangements
Collecting	*Contents of* personal documents, other printed materials, graphics, archival records, and physical artefacts	Titles, texts, dates, and chronologies; other written words; entries in an archival record
Feeling	Sensations	Coldness or warmth of a place; perceived time; interpretation of other people's feelings

3.13.1 Strategy for data collection and analysis in both choices

The strategy for analysing the collected data from this research comprised of techniques consisting of semi-structured interviews, case studies, pilot studies and survey questionnaire by using the computer. The computer packages executed for research management to fulfil the tasks in the methods adopted Statistical Package for the Social Sciences (SPSS), NVIVO, Microsoft Office and Bristol Online Surveys (BOS, 2016). Furthermore, strategies mainly for data collection and analysis were developed using research analysis (Kvale and Brinkmann 2009), (Miles and Huberman, 1994), (Yin, 2011), (Bryman, 2012), (Oppenheim, 1992), (Patton, 2001), (Dey, 1993) and (Fields, 2009) research analysis.

3.13.2 Qualitative data analysis stages and components

As mentioned earlier, (Miles and Huberman, 1994) suggest that analysis of qualitative data is implemented in three stages namely: data reduction, data display and drawing conclusions. The initial stage involved selecting the appropriate data and focusing on it. The data was further simplified, subtracted and transformed after vigorously analysing it in NVIVO software in individual and multiple cases. Various summaries were written for the 23 semi-structured interviews and cases drawn by concentrating on the themes. This realised the next step of coding via open coding, axial coding, and selective coding. The data was reduced by recurring method and constant comparison to reach the optimum level of degeneration. The second stage of data display consisted of drawing up matrices in X and Y table with cases and emergent themes. Graphs, charts and network of the cases were related at different levels. The concluding stage analysed the regularities and patterns in the data supporting explanations on the data. Configuration of how data set in individual and multiple scenarios assisted in understanding the flows and making propositions of the developmental requirements of academic MMs. Detailed explanation of qualitative data analysis stages and components is found in chapter 5 phase 2 - qualitative.

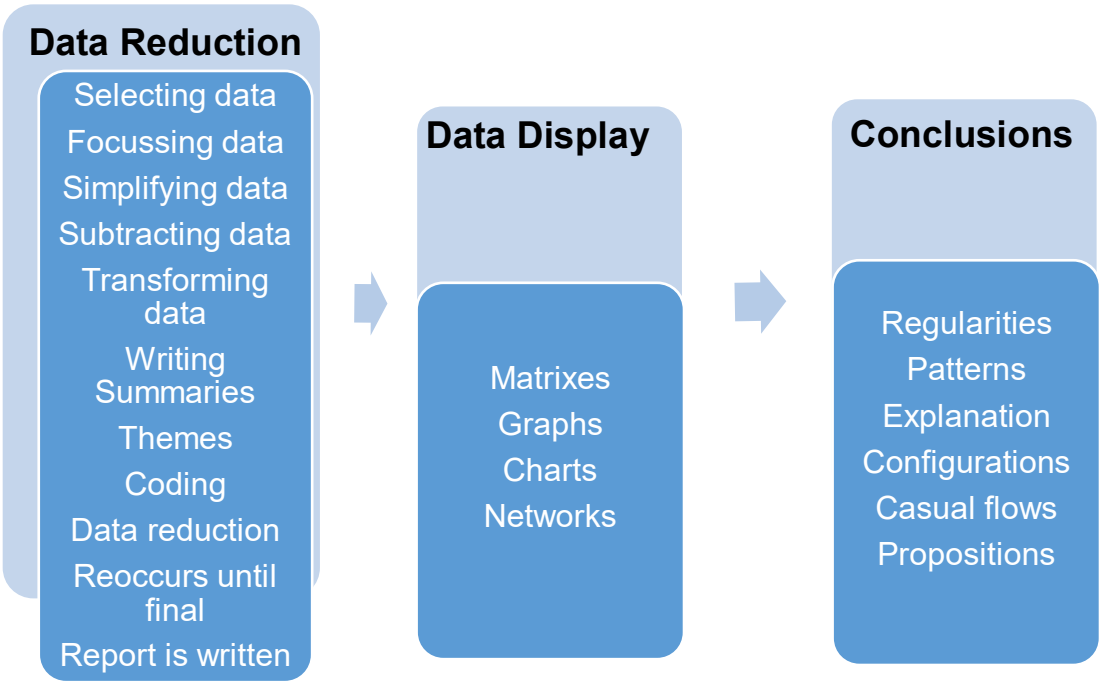

Figure 11: Road map of data analysis adapted from (Miles and Huberman, 1994)

3.13.3 Steps of using software in qualitative data analysis

The fundamental proceedings during Qualitative data analysis undertook the Miles and Huberman (1994) 14 steps approach. Data was analysed and directed into NVIVO software. The first step was making notes prior to, during and after thesemi-structured interviews. Any ideas were also jotted down for effective management of research and data. Afterwards, transcribing the semi-structured interviews in verbatim word-by-word format and editing. The data was coded in three steps namely: open, axial and selective. All the data was stored in a secure database to promote searching and retrieving of data at any time. Data was linked, and categories created, and reflective commentaries written for each of the interview transcripts. In the beginning of data analysis of semi-structured interviews, thematic content analysis was also performed analysing the words and phrases present in the interview transcripts. These techniques assisted in displaying the data as cases in a matrix. The next step was to conclude and verify on the data and build theorems before mapping those and creating visual interpretations. Finally, reports were prepared.

Table 6: Steps for using software during data analysis, adapted (Miles and Huberman, 1994)

Steps in NVIVO Software
Make Notes
Transcribe Field notes
Edit Field notes
Code – open, axial and selective
Storage on database
Search and retrieval of text
Data linking and categories
Memoing – reflective commentaries
Content analysis- words and phrases
Data display – matrix or network
Conclusion/ verification
Theory building – testing and hypothesis
Graphic mapping – creating diagrams to show themes
Preparing reports

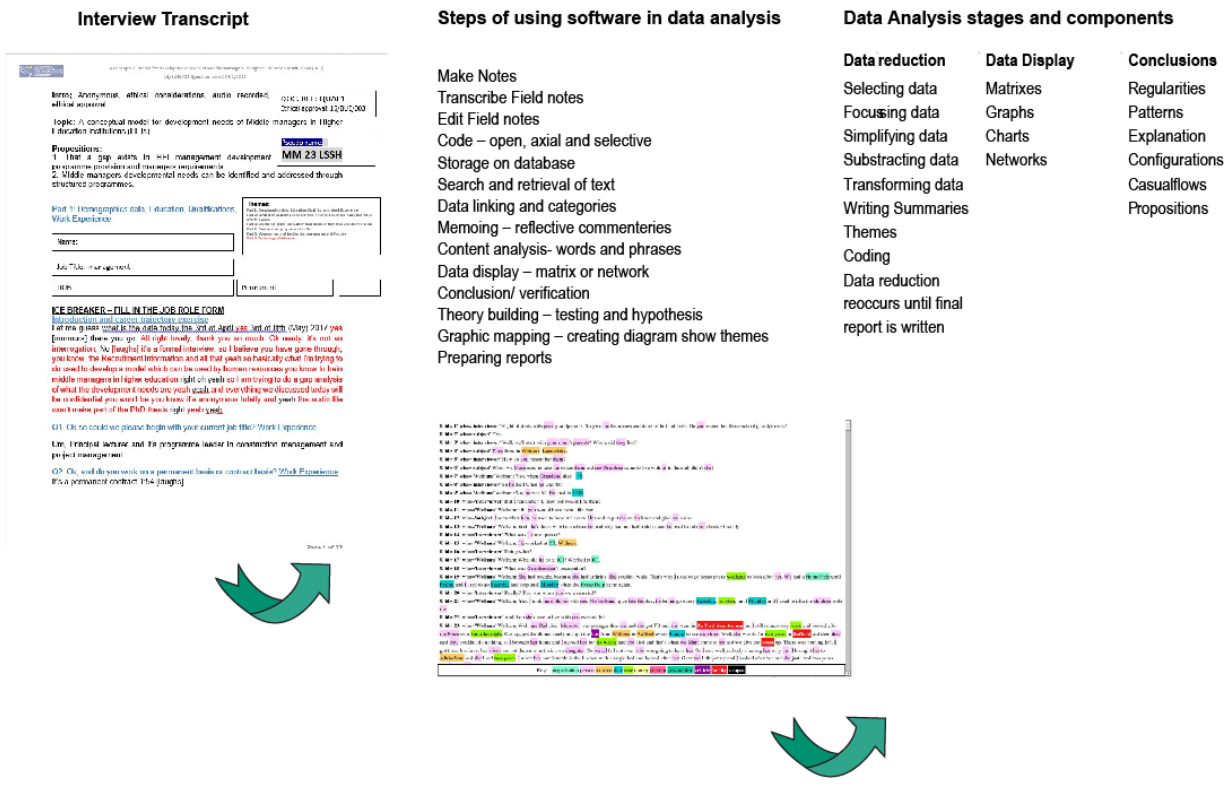

Figure 12: Sample data analysis as applied to qualitative data method

3.13.4 Quantitative data analysis stages and components

Quantitative data analysis with the application of statistical software consists of the following stages as described by (Saunders et al, 2012) which were selected for this research.

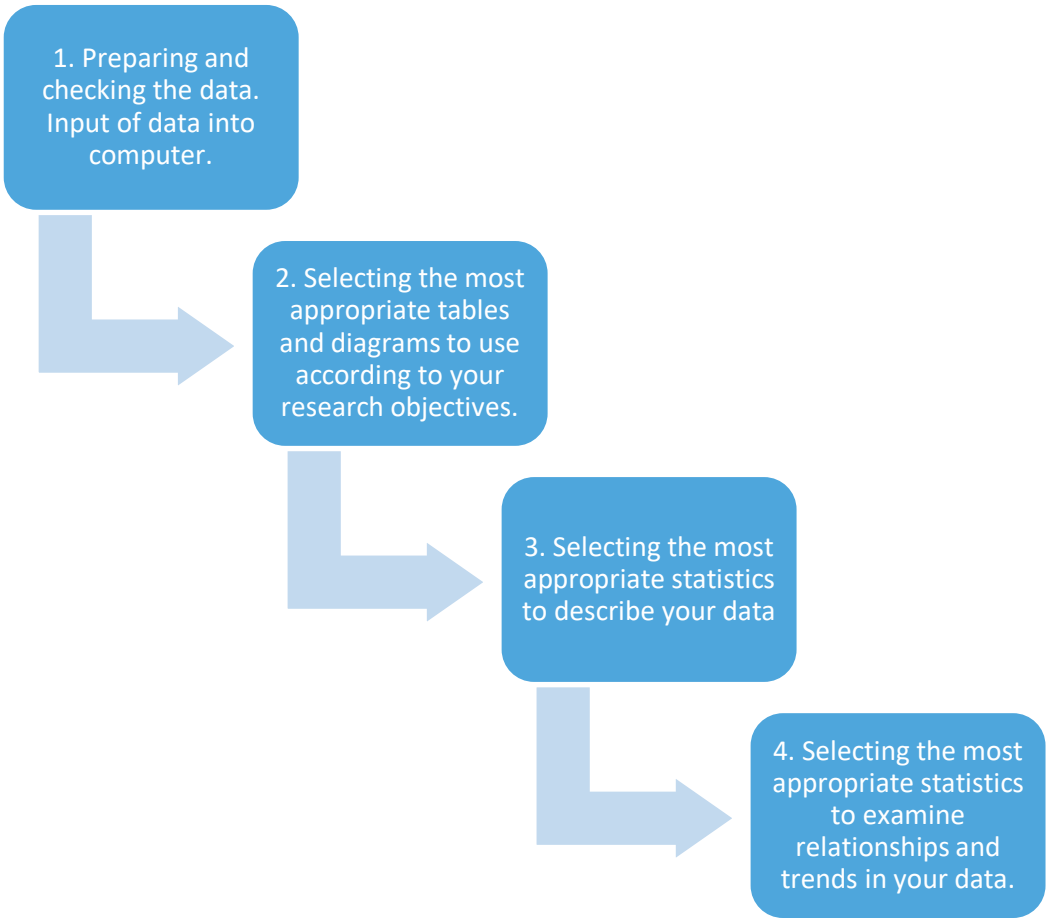

Figure 13: Quantitative Data Analysis using software adapted from (Saunders et al, 2012)

3.13.5 Steps of using software in quantitative data analysis

Saunders et al (2018) indicates that to test hypotheses in research we need to measure variables. In simple terms, variables can be defined as things that can change or vary. For example, variables might vary between people (e.g., IQ, behaviour) or locations (e.g., unemployment) or even time (e.g., mood, profit, number of cancerous cells). Majority of the hypotheses can be expressed in terms of two variables: a proposed cause sometimes known as independent (predictor) variable and a proposed outcome known as

dependant (outcome) variable. Furthermore, in his words, the author describes variables as follows (Field, 2018);

[Independent variable: A variable thought to be the cause of some effect. This term is usually used in experimental research to describe a variable that the experimenter has manipulated.

• Dependent variable: A variable thought to be affected by changes in an independent variable. You can think of this variable as an outcome.
• Predictor variable: A variable thought to predict an outcome variable. This term is basically another way of saying 'independent variable'. (Although some people won't like me saying that; I think life would be easier if we talked only about predictors and outcomes.)
• Outcome variable: A variable thought to change as a function of changes in a predictor variable. For the sake of an easy life this term could be synonymous with dependent variable]

On the other hand, variables are considered within three levels of measurement, nominal, ordinal and interval/ratio and can be split into categorical or continuous. Categorical variables are divided into distinct categories. Firstly, as a binary variable where there are only two categories for example as dead or alive state. Secondly as a nominal variable where there are more than two categories for example whether someone is an omnivore, vegetarian, vegan, or fruitarian. Thirdly as an ordinal variable where the state is the same as in a nominal variable, but the categories have a logical order for example whether people got a fail, a pass, a merit or a distinction in their exam. Alternatively, continuous variables include interval variables and ratio variables. Profoundly, interval variables represent equal differences in the property being measured for example the difference between 6 and 8 is equivalent to the difference between 13 and 15. Ratio variable on the other hand, is similar to interval variable, but differs in the ratios of scores on the scale for example a score of 16 on an anxiety scale means that the person is, in reality, twice as anxious as someone scoring 8 (Field, 2018).

Tests can be classified in to two categories, parametric or non-parametric. Parametric tests are used in cases where the data which are measured by interval or ratio scale come from a normal distribution and population variances

are equal. Nonparametric tests are used in cases where the data is nominal or ordinal and the assumptions of parametric tests are inappropriate.

3.13.6 Non-parametric tests

Non-parametric tests are sometimes known as assumption-free tests because they make fewer assumptions about the type of data on which they can be used. Most of these tests work on the principal of ranking the data: that is, finding the lowest score and giving it a rank of 1, then finding the next highest score and giving it a rank of 2, and so on. This process results in high scores being represented by large ranks, and low scores being represented by small ranks. The analysis is then carried out on the ranks rather than the actual data. This process is an ingenious way around the problem of using data that break the parametric assumptions (Field, 2013). Using the above explanation, the first step during the quantitative stage was to import the survey questionnaire from Bristol Online survey and prepare, check and input it into the computer using SPSS software (version 24). Primarily, the 75 questions' variables necessitated to be assigned the level of measurement i.e. Nominal (10 variables), Ordinal (60 variables) Interval scale (5 variables). However, none of the questions was ratio based and only three types of levels of measurements were applied. The level of measurement was allocated to each question dependant on the questions and research objectives (appendix 27). Descriptive analysis reported in various appropriate tables and diagrams was used to report on the data findings, including tables and crosstabs (appendix 28/32/33).

The diagram below gives a conclusive view to the different types of variables both independent (predictor) and dependant (outcome) and the parametric and non-parametric test applicable in each given situation. Although there are countless parametric and non-parametric tests to choose from, the most appropriate tests were selected i.e. the non-parametric tests because of their nature of being assumption-free tests, and since the number of academic MMs population is not fully known and assumed plus data was not properly distributed. Proper evaluation of the hypothesis makes it obvious to select non-

parametric tests which were chosen. A total of 24+ tests were conducted in SPSS and relationships critically examined and trends in the data sought. But only relevant tests during the quantitative part of survey questionnaire analysis were managed in SPSS and reported on. Detailed information on quantitative data analysis is discussed in Chapter 6.

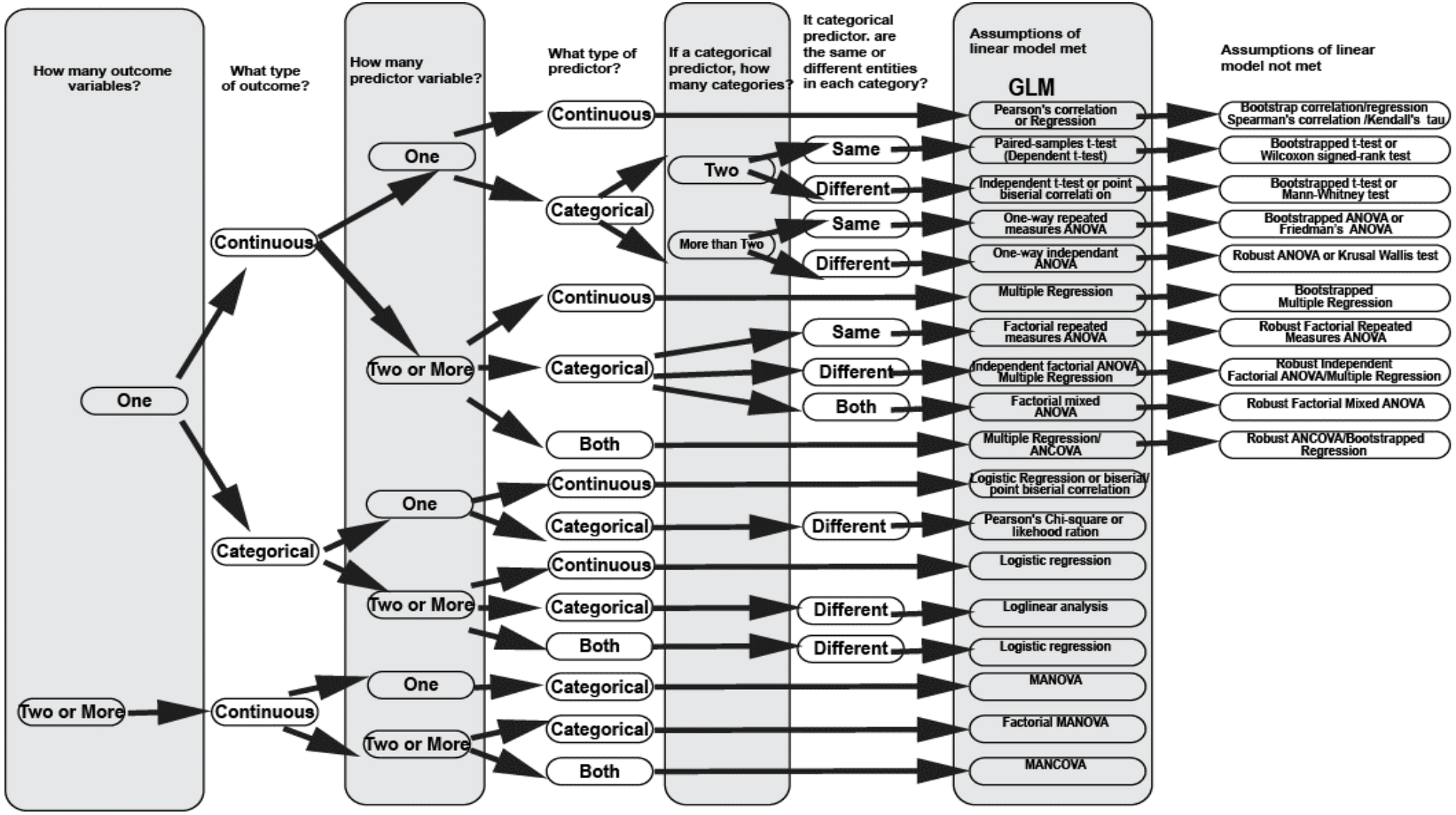

Figure 14: Types of tests for Quantitative data, adapted from Field, A. (2018 p.1071)

3.14 Unit of analysis in distinct methods

Patton defines unit of analysis as a design that specifies the unit or units of analysis to be studied. Decisions about samples, both sample size and sampling strategies, depend on prior decisions about the appropriate unit of analysis to study. Often individual people, clients, or students are the unit of analysis. This means that the primary focus of data collection will be on what is happening to individuals in a setting and how individuals are affected by the setting. Individual case studies and variation across individuals would focus the analysis (Patton, 1990). For this study six different approaches to methods were chosen as shown below.

- Pilot Study - n=2 internal
- semi-structured interviews (n=12 main) + (n=9 validation) = (n=21 internal)
- Case studies n=14 - micro, meso and macro levels within case; subcases; and cross case analysis. i.e. Embedded internal and external
- 1st Survey Pilot Study - 15 Main study + 11 feedback forms internal
- 2nd Survey Pilot Study - 25 Main study + 16 feedback forms internal
- Survey Questionnaire 141 UK universities - n=166 external

3.15 Sampling

Stratified purposeful sampling is a method commonly used in qualitative research for the identification and assortment of information-rich cases for the maximum effective use of limited resources. Stratified purposeful sampling illustrates characteristics of subgroups of interest and facilitates comparisons (Patton 2002); the researcher embraced this avenue of information by choosing the right participants in both Qualitative and Quantitative choices. In interviews, data collection is an integral part of the research and research questions to be queried need to fulfil the purpose of the activity. Question design is a very important aspect as it lays a platform for communication between the interviewer and interviewee. Thus, the process involved identifying and selecting individuals or groups of individuals that are especially knowledgeable and specialized in their respective area and who had experience, was paramount to this research (Cresswell and Clark 2011) i.e. academic MMs working in HEIs.

Table 7: List Sampling Strategies adapted from Patton, 1990 p. 182

A. Random probability sampling Representativeness: Sample size a function of population size and desired confidence level.
1. Simple random sample - Permits generalization from sample to the population it represents.
2. Stratified random and cluster samples - Increases confidence in making generalizations to particular subgroups or areas.
B. Purposeful sampling - Selects information-rich cases for in-depth study. Size and specific cases depend on study purpose.
1. Extreme or deviant case sampling - Learning from highly unusual manifestations of the phenomenon of interest, such as outstanding successes/ notable failures, top of the class/ dropouts, exotic events, crises.
2. Intensity sampling - Information-rich cases that manifest the phenomenon intensely, but not extremely, such as good students/ poor students, above average/below average.
3. Maximum variation sampling - purposefully picking a wide range of variation on dimensions of interest - Documents unique or diverse variations that have emerged in adapting to different conditions. Identifies important common patterns that cut across variations.
4. Homogeneous sampling - Focuses, reduces variation, simplifies analysis, and facilitates group interviewing.
5. Typical case sampling - Illustrates or highlights what is typical, normal, and average.
6. Stratified purposeful sampling - Illustrates characteristics of particular subgroups of interest; facilitates comparisons.
7. Critical case sampling - Permits logical generalization and maxi-mum application of information to other cases because if it's true of this one case it's likely to be true of all other cases.
8. Snowball or chain sampling - Identifies cases of interest from people who know people who know people who know what cases information are rich, that is, good examples for study, good interview subjects.

9. Criterion sampling - Picking all cases that meet some criterion, such as all children abused in a treatment facility. Quality assurance.
10. Theory-based or operational construct sampling - Finding manifestations of a theoretical construct of interest to elaborate and examine the construct.
11. Confirming and disconfirming cases - Elaborating and deepening initial analysis, seeking exceptions, testing variation
12. Opportunistic sampling - Following new leads during fieldwork, taking advantage of the unexpected, flexibility.
13. Random purposeful sampling (still small sample size) - Adds credibility to sample when potential purposeful sample is larger than one can handle. Reduces judgment within a purposeful category. (Not for generalizations or representativeness.)
14. Sampling politically important cases - Attracts attention to the study (or avoids attracting undesired attention by purposefully eliminating from the sample politically sensitive cases).
15. Convenience sampling - Saves time, money, and effort. Poorest rationale; lowest credibility. Yields information-poor cases.
16. Combination or mixed purposeful sampling - Triangulation, flexibility, meets multiple interests and needs.

3.15.1 Sampling semi-structured interviews and case studies

As defined by Survey Monkey (2016) the elements to use when calculating sample size is Population size, Margin of error and Confidence levels as defined below:

Population size: the total number of people in the group you are trying to reach with your survey is called your population size.

Margin of error: A percentage that describes how closely the answer your sample gave is to the “true value” is in your population. The smaller the margin of error, the closer you are to having the exact answer at a given confidence level.

Confidence level: A measure of how certain you are that your sample accurately reflects the population, within its margin of error. Common standards used by researchers are 90%, 95% and 99%.

Considering theses notions, we calculated the sample size using Fluid Surveys, (2016) for establishing the MM population to be sampled in a post-1992 university

for semi-structured interviews. The Human resource department was approached in the post-1992university to give an estimate of their academic MMs population working at the respective HEI. An approximate figure of 250 academic MMs was received from HR. Hence, based on this population number of 250 academic MMs working in the HEI with confidence level at 90% and margin error of 18%, the sample size of academic MMs to be interviewed totalled to 22. However, the researcher managed to conduct one more interview, totalling 23 participants.

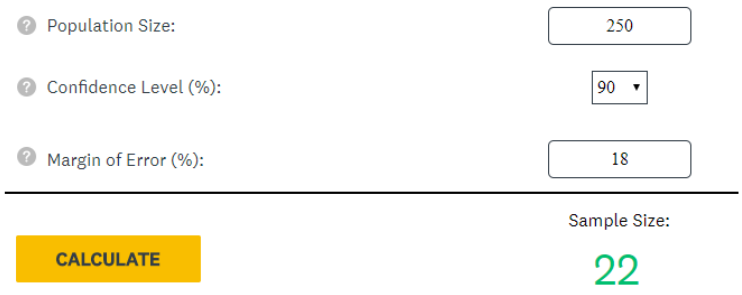

Figure 15: Screenshot of semi-structured interviews and cases sample size calculation

3.15.2 Sampling Survey Questionnaire

Based on MM population number of 250 academic MMs working in a post-1992 university as above. An approximate value was calculated for 141 UK HEIs multiplied by 250. The total score was 35,250 and was calculated in Fluid Surveys, (2016) using a confidence level of 99% and margin of error at 10%. The outcome figure for population size to be recruited was 166 participants. Therefore, this approximation of academic MMs population was sought for representing a part of academic MMs population in UK HEIs. However, this technique of calculating sample size was based on approximations and the actual figure of academic MMs population of academic MMs in UK is not known.

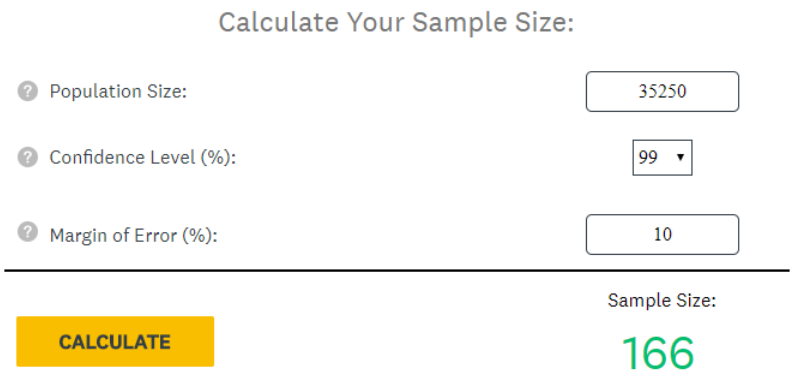

Figure 16: Screenshot of survey questionnaire sample size calculation

Table 8: Sample size in Methods

Sample size - n=number of respondents	
QUALITATIVE STAGE	
PILOT STUDY	n=2
MAIN STUDY- CASES/SUBCASES	n=12
VALIDATION STUDY - CASES/SUBCASES	n=9
MM TOTAL	n=23
MALE	n=12
FEMALE	n=11
QUANTITATIVE STAGE	
PILOT STUDY ONE - internal	n=15
PILOT STUDY TWO - internal	n=25
MAIN STUDY APPROACGED MMs - external	n=2,035
FULLY COMPLETED SURVEY QUESTIONNAIRE	n=166
MM TOTAL	
TARGETED MALE /FEMALE RATIOS	50:50*
* Though a balanced approach was adopted to recruiting an equal number of male and female genders. Only fully completed forms were analysed in the Quantitative stage. Response percentages were as follows: 94 Male MM (56.3%), 71 Female MM (42.5%) and 2 MM did not disclose their gender (1.2%)	

3.16 Research Reliability and Validity

3.16.1 Introduction

Several schools of thoughts have emerged regarding validating procedures for research. Saunders, (2008) explains validity in two notions. Validity is the extent to which the data collection method or methods precisely enumerate what they were intended to measure. Also, validity can be expressed as the extent to which research findings are a true reflection of what they represent. A different perspective, suggested by Murphy, (2009), is the underlying concept on validity expressed to comprehend the validity of tests and assessments for their intended purposes in organizations. An appropriate facet is to develop a more realistic and comprehensive understanding of the purposes and the implications of testing in organizations. one should pursue the most influential criteria as a group rather than selecting one definite index as the operational measure of the ultimate criterion. While, Snowden and Boone, (2007) outline four different principles of validating strategies in an environment namely: simple; complicated; complex; and chaotic. Additionally, the authors exemplify how various approaches to strategy and management are required for each environment and based on situation.

3.16.2 Strategies for assessing the validity

There are two broad-spectrum strategies for considering the validity of measurement; validation by analysing the structure of tests and validation by analysing the correlation of test scores. Measurement validity can be established by representing whether the subject of a test maps well onto the content domain it is designed to measure (Carmines and Zeller, 1979; Murphy and Davidshofer, 2005). Content mapping is frequently an important part of test development, and acts as a proof that a test has been developed in such a way as to meticulously sample. a particular content domain can be used to support the hypothesis that the test is a good measure of that domain. The second unreserved strategy for assessing measurement validity can be consideration of validation by extension which encompasses showing that test scores are associated to other constructs in a way that is constant with the definition and meaning of the thing a test contends to measure.

3.16.3 Approaches to the types of validity

To determine whether validity is true or not, the researcher needs to adopt a whole range of different validation approaches e.g. using environmental validation, population validation, construct validation, criterion related (predictive) validation,

ecological validation, external validation, internal validation (measurement validation) and face validation (Saunders, 2008). Construct validity signifies the amount to which the measurement questions measure the existence of those constructs (e.g. attitude scales, aptitude and personality tests) which they are intended to measure. Another aspect is the internal validity that refers to the questionnaires ability to measure what it is intended to measure. Criterion-related validity, also known as predictive validity, is encompassed with the competency of the measures (questions) to make precise predictions. Ecological validity deals with external validity referring to the extent to which findings can be generalized from one group to another. Environment validity ensures that the findings produced are true and representative of the environment within which its results are obtained. Face validity depicts that a question, scale, or measure transforms logically to reflect precisely what it was intended to measure. Content validity increases the measuring device in the form of questions appearing in the questionnaire that provide substantial analysis of the investigative questions. Messick (1988, 1989, 1995) suggested that we should consider the consequences of test use when evaluating validity. He defined consequential validity in terms of the "[…value implications of score interpretation as a basis for action as well as the actual and potential consequences of test use…]" (Messick, 1995). Furthermore, Cozby, (2009) relates to a more statistical conclusion validity approach in that it examines the degree to which conclusions about the relationship among variables are grounded on the data that is true or reasonable using quantitative and qualitative data.

3.16.4 Approaches to reliability of data for validation

Mitchell, (1996) suggests the best way to approaching reliability in data for validation during consideration is that, at the questionnaire design stage testing and re-testing data obtained should be assessed by correlating data collected with those from the identical questionnaire collected under as near equivalent situations as possible. Furthermore, the second part is to check for internal consistency which involves correlating the responses to each question in the questionnaire with those to other questions in the questionnaire measuring the reliability of responses across either all the questions or a sub-group of the questions in the questionnaire. Additionally, an alternative form of reliability must be examined within the questionnaire by comparing responses from population to substitute forms of the same question or groups of questions. Hence, the proposed questionnaire for this study implemented this phenomenon by utilizing pilot studies administered to respondents for reliability and validity.

3.16.5 Testing for reliability and validity

To better the researcher's understanding, measuring and testing for reliability and validity, the afore mentioned strategies, approaches, data validation, and generalizations were incorporated in the study. Two pilot studies with an Emeritus professor and HR expert merged with the literature review created the foundation of the research. 23 academic MMs participated in thesemi-structured interviews lasting approximately an hour each sampled from internal environment. However, 14 interviews were analysed in rich detail whereas the remaining 9 audios verified the initial results. This process confirmed and further explored on the findings and minimized bias surfacing during the research ensuring the study is valuable and reliable. Two main strategies were harnessed to minimize any bias conditions to the best of the researchers' knowledge and ability. Firstly, bias reduction consisted of constantly thinking about the potential biases which could emerge during the data collection and data analysis, and, by tackling the effects that are created by constantly reflecting. Secondly, to disregard any negative sampling not related to the study and keep a level mind. As an example, to this justification, the sequence to maximizing on the reliability during the semi-structured interviews, the questions structure, venue and time were mutually decided by the interviewee and participants so as to reduce participant error and any bias. On the part of the researcher, any research error and bias during the interview protocols i.e. when recording interviews during the semi-structured interviews were done with ethical considerations and high-quality research standards. The Case studies results testing for reliability and validity also complemented each other at the same level. Not only the same values were applied in all the dimensions of the research internally and externally, but, this approach to testing for reliability and validity was iterated during all the research including data collection, case studies, pilot studies, survey questionnaires and analysis stages to ascertain the study for reliability and validity.

3.16.6 Cronbach Alpha reliability testing

Cronbach Alpha is a vital concept in the evaluation of assessments and questionnaires (Tavakol, and Dennick, 2011). Furthermore, it is necessary that assessors and researchers should estimate this quantity to add validity and accuracy to the interpretation of their data. Hence, a coefficient formula is used to estimate the reliability of a psychometric test and measure its internal consistency as a measure of scale reliability. That is, how closely related a set of items are as a group. Running the Cronbach Alpha reliability test for the survey questionnaire in

SPSS on all 166 cases, resulted an overall scoring of .758 and was satisfactory and proved that the survey questionnaire was valid and reliable. Full results can be found in (appendix 30).

3.16.7 Validity Generalization

In a series of papers (Schmidt et al, 1992), the authors articulate that it is normally possible to generalize from existing research on test validity to extract conclusions about the validity of tests in a variety of environments. Especially, as showcased in their results regularity to generalize the findings of existing validity research to new findings. Thus, providing a general solution to the emergent similar problem that motivated in a model they call *the synthetic validity model* that emphasizes the problem through estimating validity in a particular framework without doing a new validity study in that environment. Based on these criteria, this research was produced meticulously with little or no biases transcending through stringent frameworks ensuring generalized application of findings at all levels of data collection and analysis in both the mixed methods stages.

3.17 Time Horizons

Saunders et al, (2009) stress on two dimensions of conducting a research study, Cross-sectional studies or Longitudinal studies. The Cross-sectional described as snapshot taken at a particular time while the longitudinal research is described as a diary form of collecting various snapshots over a given period of time. Hence, the undertaking for this research related to Cross-sectional study because the total time horizon is based over 4 years (Mar 2015 to April 2019) of study and by using mixed methods, various research strategies and techniques and procedures in both stages of the research project. And, because most importantly acdemic MMs participated once in the research.

3.18 Summary of Chapter 3

This chapter has provided an overview of the entire research including its planning, processes and ethical considerations. The research methodology stages are discussed in detail using the Saunders onion as a tool of managing this research exclusively. Furthermore, we analysed the research philosophies and approaches for the study in both the stages. Research choices of expending mixed methods principles applied to the qualitative research and quantitative research are also discussed. A conclusive research methods table 4 (Research objectives and methods in three phases) is presented supplementing its confirmation in an

executive detail of protocols during the qualitative and quantitative stages discussing the rationale, who, why, how of elements. The strategies of implementing grounded theory, case studies and survey are deliberated in great length fortified with sampling procedures. Data collection and analysis in both choices of the research are reflected with appropriate research techniques and procedures namely of semi-structured interviews, case studies, pilot studies, and survey questionnaire. Steps of using appropriate CAQDAS software to analyse, test and report in both Qualitative and Quantitative data analysis is also discussed in more details.

An overall research framework/plan is also presented in this chapter giving a graphic representation at a glance of the whole research initiated from literature review to survey intents. In conclusion, the strategies, approaches, testing of research reliability and validity is deliberated in conjunction with the all-encompassing research time horizon.

CHAPTER 4. PHASE 1- QUALITATIVE PILOT STUDY

4.1 Chapter 4 overview

This chapter reports on phase 1 which involved conducting a qualitative pilot study to build the basis of this research. The rationale of the pilot study is discussed. Also, the strategy, sampling, data collection and data analysis is expanded on.

4.2 Pilot Studies

A fundamental component in the data collection process is that of the pilot study, which is according to Monette et al., (2002) *. . . a small-scale trial run of all the procedures planned for use in the main study […].* A pilot study may address several logistical issues. Bryman suggests that it is always required to conduct a pilot study before administering a self-completion questionnaire or interview schedule to your sample (Bryman, 2012). Piloting supports and ensures that the research instrument functions well and any lack of clarity can be tackled prior to dissemination to participants. Since the questionnaire is completed on a self-completion basis and no interviewee interception present for clarity, it is fundamental that all aspects of the questionnaire are vigorously checked e.g. question types, relevance, flow of questions, language, unit of scales and time constraints in filling the questionnaire. piloting also provides experience for a researcher and gives a greater sense of confidence. Based on these advisories, pilot studies were conducted for the study.

4.2.1 Rationale of pilot study 1

In general, the rationale to conduct pilot studies was to run a trial scale of all the procedures planned for use in the main study and prepare the final survey questionnaire. However, a total of three pilot studies were conducted in the entirety of the study. The first pilot was conducted to strengthen the research and build a foundation for this research. When choosing participants for qualitative research the subject matter of the research, as expressed by the research question and the research aim, should be the main factor influencing the technique used to choose the sample and the criteria on which this is based.

According to (Saunders MNK, 2012) guidelines for new qualitative researchers, in his words the author suggests that *"when choosing participants for qualitative research the subject matter of the research, as expressed by the research question and the research aim, should be the main factor influencing the technique used to choose the sample and the criteria on which this is based".* Therefore, following this notion the main two criterion of selecting 2 pilot study cases focussed on answering

research questions and research aim. In a similar perspective as mentioned before, Patton highlights that *"there are no rules for sample size in qualitative inquiry. Sample size depends on what you want to know, the purpose of the inquiry, what's at stake, what will be useful, what will have credibility, and what can be done with available time and resources"* (Patton, 1990, p180).

Hence, the participants who participated for this exercise included an Emeritus professor and HR manager at a post-1992 university. Though this was a small sample of two participants, it is mainly justifiable as presented from qualitative perspective of above authors. Hence this justification can be expanded further with following reasons:

1. To build the knowledge and foundation for the study
2. To answer research questions
3. To answer the research aim
4. To allow the collection of rich and appropriate data related to the research
5. To validate the prepared questions with Emeritus professor for his rich experience, although he had retired from MM position and worked partime now. Similarly, gain insights of HR manager to measure current trends in development and training of academic MMs.
6. Uncover the questions and answers and gain ideas
7. Gather meaningful opinions, comments, and feedback.
8. To collect honest feedback from the experts.
9. To base decisions on objective information and further research in the best way possible in limited time.
10. To evaluate and make sensible decision-making based on pilot study results and prepare for forthcoming larger sample size
11. To capture opinions, attitudes and behaviours
12. To analyse, explore and test the essence of questions and make appropriate modifications.

4.2.2 Strategy, sampling, data collection and data analysis

The interview with the Emeritus professor and HR manager was meticulously planned and a mutually convenient time and location selected. The semi-structured interviews were recorded using a digital device and audio file stored on computer storage ready for transcribing and analysing. The interviews lasted for 35:37

minutes for the Emeritus professor and 30:44 minutes for the developmental provider. The author listened to the interview via step forward and backward actions to transcribe the interviews in verbatim format prior to exporting for analysis in NVIVO. The process involved open coding, axial coding and then selective coding using (Miles and Huberman, 1994) protocols. Constant comparing to exhaust the data and linking formed the final categories.

The Emeritus professor was a male participant who had retired and was aged 71 with pseudo name MM 8 whose academic MMs role was not applicable as he worked on a contract basis. The participant had over 45 years' experience working in HEIs and his first career role was as a lecturer in grade 2. His second promotional role during his career trajectory came after serving for 15 years as a senior lecturer. Then, he became a reader in applied chemistry after 25 years. After 30 years he was a professor of environmental technology prior to his retirement. The participant held a PhD and studied in 2 higher education institutions during academic endeavours on a part-time basis. Interestingly, the participant achieved further qualifications and came to work from education to the current HEI in a temporary position before settling into permanency. The Emeritus professor according to his perceptions mentioned that current changes and challenges faced by Academic MMs in their role was dependant on the size of the institution and transformation of population of students coming into HEIs. The HEI system was nowadays measured on performance, and accountability. However, pressures, workloads and managerialism increased in target driven processes such as research income, student performance, student satisfaction. The participant felt that HEIs were less collegial and unsatisfied together with communication gaps and academic MMs not involved in decision-making. Student attitudes created enormous pressure for academic MMs. 14 different themes related to the Emeritus professor's developmental needs were reported as shown in the diagram below.

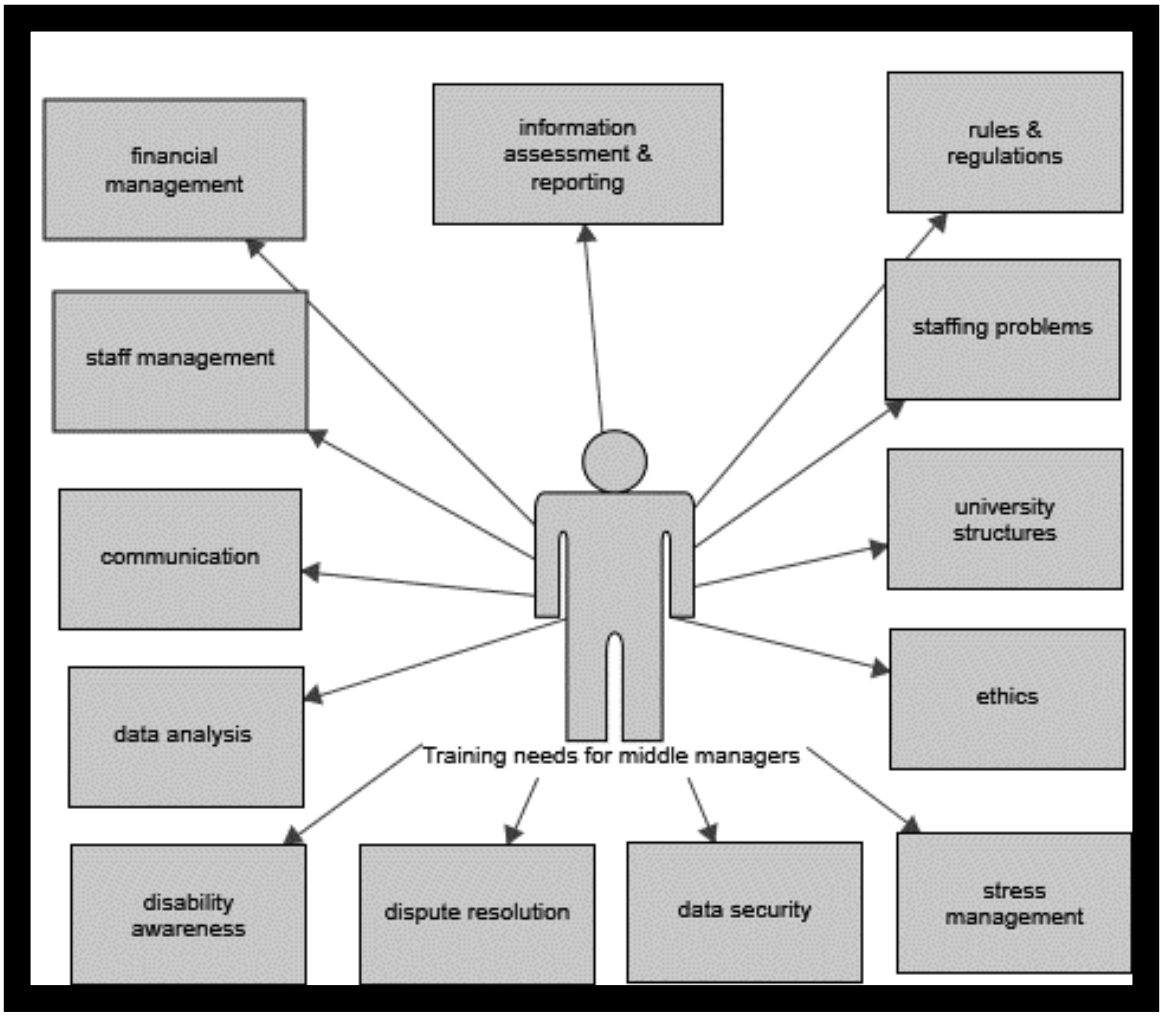

Figure 17: Perception of academic Middle Managers developmental needs from Emeritus professor

The second participant in the first pilot study was a male staff developmental adviser. The participant was responsible for the design, delivery and evaluation of staff development support in the respective post-1992university. His role involved raising awareness of development opportunities presented by the HEI as well as helping, advising departments and teams on the best way forward to meet identified developmental needs. In addition, facilitating group sessions and also offering one-to-one developmental sessions and confidential support. the participant held a PhD and studied at 9 HEIs during academic endeavours on a full-time basis. Interestingly, the participant achieved further qualifications and came to work from education to the current HEI in a permanent position. To date the developmental provider held 24 years working experience in HEIs. The participant had registered for Level A and B testing with the British Psychological Society and Programme Leader for the following programmes: Level 4 Certificate in Leadership and Management, Level 3 Award in Leadership and Management, Level 3 Award in

Education and Training and Level 3 Award in Training - Principles and Practice. Furthermore, according to the developmental provider the majority of the people for developmental training were academic MMs at the post-1992 university. Academic MMs demands were greater compared to the other managers set and they sensed having less power compared to the senior and junior managers. Academic MMs felt that they were stuck in the middle role to interpret policies and decisions made by the senior managers which perhaps they don't agree with but have to go on and to communicate them to the staff. Another key aspect of the role was that Academic MMs found it difficult to try and balance out the strategic and operational sides of the management role which sometimes clashed with each other. Academic MMs needed to sort out their day to day role practicality. However, the training offered to all managers was not separable by job types or levels of managers but instead a generic model applied to all i.e. developmental training offered was same for academic managers and likewise for professional services, teams and departments. An interesting element in regard to the developmental course required by Academic MMs was the level 4 programme instituted by Institute Leadership and Management (ILM). The course was primarily designed for programme leaders, department leaders, earlier career people who are in a management role but new in their career (Lecturer/Academic/Admin). The course was embarked upon by academic MMs when they undertook the role of leadership in HEI. However, the academic MMs felt they were losing part of their job which they were comfortable with e.g. a lecturer becoming a programme leader will do less lecturing. Hence, this brought out different skills and perceptions of them. While as for advanced managers, a LEVEL 5 programme was delivered for senior, established and experienced managers.

4.3 Developmental courses demanded by academic Middle Managers in a typical post-1992 university

Analysis of the detailed semi-structured interview with the developmental provider in a typical post-1992 university revealed 14 different themes emerged. These themes were related to types of developmental courses and support demanded by academic MMs in the respective post-1992 university as shown in the diagram below.

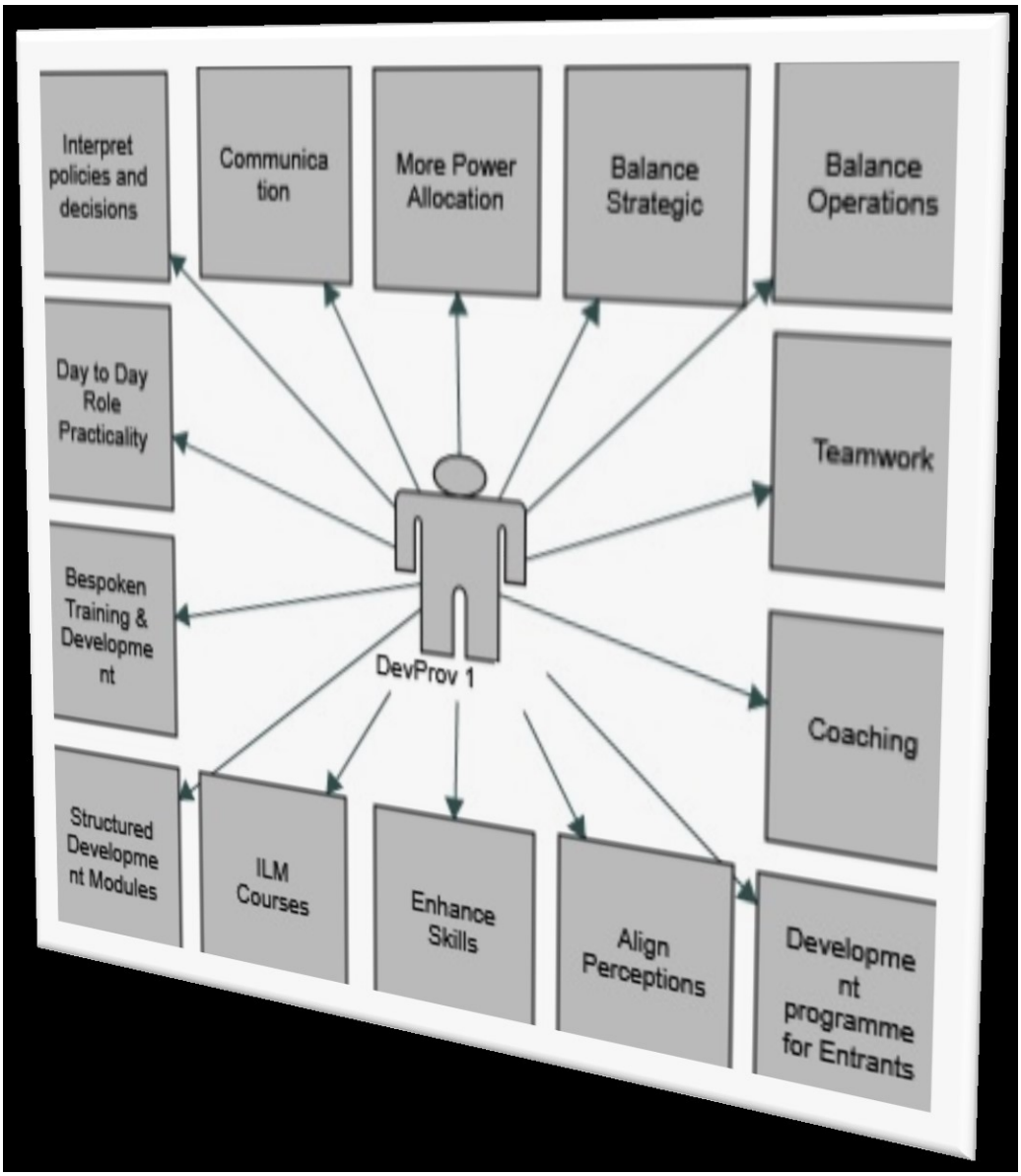

Figure 18: Developmental courses demanded by academic Middle Managers at a typical post-1992 university

4.4 Future aspirations of a typical post-1992 university

In conclusion, as reported by the developmental provider, academic MMs needed help with the practicalities of dealing with issues such as communication, dealing with teams, handling the organisational side. Future aspiration of a typical post-1992university was to blend between academic and non-academic departments and individuals, collaboration between the teams, multi-disciplinary skills development and to enhance MMs skills since typically the focus for academic MMs had always been for the teaching and learning.

4.5 Summary of Chapter 4

This chapter has described phase 1 of the study and involved conducting qualitative pilot studies with an emeritus professor and developmental provider manager so as

to build the basis of the research. The results of phase 1 pilot studies assisted us to develop the qualitative questionnaire. The rationale of the pilot study is discussed with strategy, sampling, data collection and data analysis. The chapter firstly shows the 14 different themes related to academic MMs as perceived by an emeritus professor on developmental needs of academic MMs namely: financial management, staff management, communication, data analysis, disability, ethics, data security, dispute resolution, staffing problems, university works, university rules and regulations, stress management, more requirements for assessment and information reporting.

Secondly, the chapter draws on developmental needs courses offered and demanded by academic MMs at a typical post-1992 university reported by the staff developmental adviser. These include aspects such as; interpreting policies and decisions, communication, more power allocation, balancing strategic and operations, day-to-day role practicality, bespoke training and development, structured development modules, ILM courses, enhancing skills and aligning perceptions, development programmes for entrants, coaching and teamwork. Lastly, light is shed on future aspirations of a typical post-1992 university.

CHAPTER 5. PHASE 2 – QUALITATIVE semi-structured INTERVIEWS, CASE STUDIES, GROUNDED THEORY AND PILOT STUDIES

5.1 Chapter 5 overview

This chapter reports on the research results in phase 2 and discusses the findings of the various methods adopted in answering the research questions namely: semi-structured interviews, pilot studies, case studies and grounded theory.

5.2 Semi-structured interviews

Interviewing in the modern era has become one of the most widespread knowledge-producing practices across the human and social sciences in general. It also plays a critical part in psychology. Interviews exist in various forms ranging from formal interviews, for example, during surveys, online, over the telephone, or in face-to-face communication, to more informal conversations conducted for research purposes, for example, as a part of ethnographic fieldwork. Interviews can also range in the structure. In typical survey research interviewing, standardized questions are created which pursue answers that are open to quantitative procedures. On the other hand, qualitative interviews, however, are semi-structured. In a semi-structured interview, the researcher stipulates some structure based on his/her research interests and interview guide. However, the researcher works flexibly with the guide and allows room for the respondent's more unrehearsed descriptions and narratives (Kvale and Brinkmann, 2009). A similar opinion by David and Sutton also highlights on this phenomenon on interviewing. In their view, semi-structured interviews are non-standardized and are a method commonly used in qualitative analysis (David, and Sutton, 2004). The researcher has a list of key themes, connections, variables, and questions to be covered from the theoretical framework. semi-structured interviews involve questions that can be altered depending on the direction flow of the interview. However, semi-structured interviews investigate key themes rather than specific questions. Concurrently, a certain degree of flexibility for the researcher to respond to the answers of the interviewee and therefore develop the themes and issues as they develop is necessary (MacDonald and Headlam, 1999). Kvale and Brinkmann not only stress on discussion of ethics in research and critical evaluation of quality of the scientific knowledge produced but also emphasize on crafting the continual validation process. For this research project, the processes and procedures of the semi-

structured interviews are based on these underpinnings from the mentioned authors.

Figure 19: Validity as Quality of Craftsmanship adapted from (Kvale and Brinkmann, 2009)

5.2.1 Rationale of semi-structured interviews

The rationale of conducting semi-structured interviews involved recruiting participants purposely selected from a post-1992 HEI for investigation during the Qualitative stage of the research project. This enabled the selection of the individuals based on definitions of academic MMs e.g. based on academic MMs job roles and descriptions (chapter 2). Carrying out the semi-structured interviews answered the research questions and queries such as: confirmation, validation and exploration on the themes' findings from the literature review via a theoretical framework. The semi-structured interview findings were useful for cross comparison with another set of nine academic MMs by means of audio verification.

5.2.2 Strategy, Sampling, Data collection and Data Analysis Why?

The semi-structured interviews targeted the academic MMs experts in their roles at a post-1992 HEI to gain their insights on related topics of investigation by the researcher. Thus, this technique enabled academic MMs to make an immense contribution and direction to the research study and informing the author of their true developmental needs. The 23 out of approximately 250 academic MMs were interviewed using semi-structured interviews lasting approximately an hour each. This facilitated into building the foundation of the study and understanding academic MMs development needs giving the study a strong basis on answering the research

questions. The study investigated the hierarchical structure of a post-1992 HEI and its positions consisted of academic MMs within that structure namely: deans, head of dept. /school director, subject heads and Principal/senior lecturers. Emergent themes from theoretical framework were investigated to confirm academic MMs reactions via a set of questions. The questions circulated to academic MMs showed the difference on backgrounds, career routes and trajectories of academic MMs explored namely in their academic roles. The findings provided for rich demographic data i.e. gender, age, qualifications, employment status (full time/part time). The semi-structured interviews reported on the qualities, personal attributes, skills, responsibilities, and different backgrounds of participants. This also provided an understanding of the inconsistencies and strength of HEIs and developmental requirements of academic MMs. The semi-structured interviews allowed the researcher to gain reliable, unbiased, comparable rich qualitative data from the 23 interviewees reinforced with a rigorous set of questions. The questions were designed from the findings of the literature review and pilot study conducted with an HR manager and an Emeritus professor. This allowed the researcher not to divert and remain focused on the topic under investigation and new insights and, ideas arose. The prompting and probing during the interviewees gained more data to be explored and enhanced the quality of the data from semi-structured interviews. The data gathering used all ethical considerations in a fair manner so as to amass reliable, valid and unbiased, data from participants. The semi-structured interviews were transcribed in verbatim word_by_word format. This technique of meticulous transcription heightened the quality of the data composed using grounded theory style wherein the theory arises from the actual data. The semi-structured interviews also presented a basis of cross comparison to the theoretical framework outcomes, and, reported on new themes that arose during the processes and ideas for future work.

5.2.3 Strategy, Sampling, Data collection and Data Analysis How?

Stratified purposeful sampling of profiling the MM population in a post-1992 HEI website was conducted to establish and select the suitability of academic MMs for the study. The potential participants were invited for the study. The participants were sent a request to participate via an email invitation to participate in the study (appendix 3 and 4). All interested academic MMs were provided with all relevant information and details of the mutually agreed date, venue, and time for structured interviews. All correspondence and communication were followed professionally

with academic MMs for interview participation in an ethical, efficient and effective manner. The interviewing techniques highlighted by Whiting, (2008) were adapted for maximum output during 23 academic MMs semi-structured interviews by exploiting probes and prompts. Additionally, participants were advised of their anonymity should they wish to participate, confidentiality and right to withdraw during any processes of the study (appendix 1). Any further questions by participants were answered for study participation and a consent form was signed by all interested academic MMs prior to interview (appendix 2). The participants were respected in all aspects under ethical guidelines and considerations and all issues clarified prior to and during the semi-structured interviews. These deliberations were exercised and applicable during all the stages of the semi-structured interviews. Furthermore, during the semi-structured interviews, the data was collected using audio recording software and on two mobile phones. One phone acted as a backup for any shortcomings. The audio files were uploaded onto a computer and audio listened to provide verbatim transcription of the semi-structured interviews. A quick run through the interview transcripts provided main themes for fortifying the semi-structured interviews and provided the basis for case studies before analysing the data in detail using Miles and Huberman methods of data reduction, data display and conclusions (appendix 8). All the transcribed data produced the final themes that were combined into relevant categories and concepts. To validate the interview findings, an audio validation was performed on the remainder 9 interviews (appendix 10-11) by audio listening to the files and making notes on key issues. In summary, the semi-structured interviews gave an insight to the academic MMs developmental needs, and, supported overall research, it also provided prerequisites for the next enquiry of the research. As mentioned, the author further utilised probing techniques in the semi-structured interviews to maximise the outputs from participants (appendix 6).

5.2.4 Job role form

After self and research introduction, the interviewee conducted a career trajectory exercise as an ice breaker (appendix 7) to facilitate the academic MMs to feel comfortable and natural in sharing their experiences. The consent form was signed prior to emabarking on the interview (appendix 2).

5.2.5 The semi-structured interview questions

A questionnaire transcript was prepared having been influenced from the emergent themes during the critical literature review and building of theoretical framework. The interview protocol was divided into 5 parts and 22 questions in total. The themes of questions instrumented included demographics data, education, and qualifications, work experience. The context of changes and challenges experienced by academic MMs in their respective higher education institution (HEIs) over the years. academic MMs experience, roles and career trajectories. Individual developmental needs, management and leadership development and practice (appendix 5).

Part 1: Demographics data, Education, Qualifications, Work Experience

Q1. So, what is your current job title?
Q2. And do you work on permanent basis or contract basis?
Q3. And did you have any industry experience prior to joining HEI?
Q4. And have you ever held a position of being a research assistance?
Q5. And what are the education institutions you studied at and how much time did you spend at each of these institutions?
Q6. And I know you hold a PHD? Could you tell me what subject area it was in?
Q7. And were you a part time or full-time student during your University Education?
Q8. Ok and what do you feel about your background that has hindered or helped your career development?
Q9. Have you embarked on any further qualifications during your career after your education period?

Part 2: Ok the 2nd part is about the context of changes and challenges in Higher Education Institution (HEIs) over the years that you have experienced.

Q10. So how long have you been serving in the HEI industry?
Q11. And what do you perceive as the main changes to have taken place in UK higher education system over the years that affected your career trajectories?
Q12. And what are, about, the key challenges you faced in your job role over the years in your career?
Q13. And how would you describe the current position of HEI system in comparison to when you started your career?

Part 3: Experience, Roles and Career Trajectories in Higher Education Institution

Q14. So, could you please share with us the details of your current job description?
Q15. And do you feel your current job is well defined?
Q16. And in your experience, how has the role of a Middle Manager transformed in HEIs over the years?
Q17. And could you please reflect on your career and identify key the development stages you experienced and how did these developments assist you in your job?
Q18. And in those developmental stages, could you please identify you know a key critical event that occurred in each of the stages?

Part 4: Development programme in HEIs
Q19. So, could you please reflect on 3 key courses that impacted your career development?
Q20. And what are the other key formal or informal development programmes and mentoring you have undertaken during your career that assisted you in accomplishing your job tasks?
Q21. So, what are the features of efficient and successful the development practices and processes for development of Middle Managers today?

Part 5: Management and Leadership development and Practice
Q22. So, what are the key gaps that exists in HEI management development programme provision today and how can we narrow these gaps?

23 Academic MMs devoted their time and experiences to the study by participating in the semi structured interviews and cases studies. Although, every effort was made to balance out on the different classes of MMs and genders during recruitment, this was not entirely achieved. Therefore, the participants who responded comprised of 3 deans, 7 HOD, 4 Subject heads, 7 Programme leaders, 1 Development provider and 1 Emeritus professor.

5.3 Rationale for Case Studies

The main rationale to conduct case studies was to analyse, compare, merge and explore emergent themes from semi-structured interviews. Additionally, this Qualitative method would facilitate the other research methods, namely the pilot study and survey providing a framework to use for the quantitative approach. The case studies were divided into three main levels under; micro (23 cases) of individual academic MMs; meso (1 post-1992 case) and macro (1 UK comparison HEIs case). this was achieved using case study designs and case study agenda expounded by Yin, (2009) by undertaking a single case study of a post-1992 university treated as a main holistic organization for the case study. And, 23 individual multiple embedded cases designed included the two-pilot study whose participants' data was also analysed.

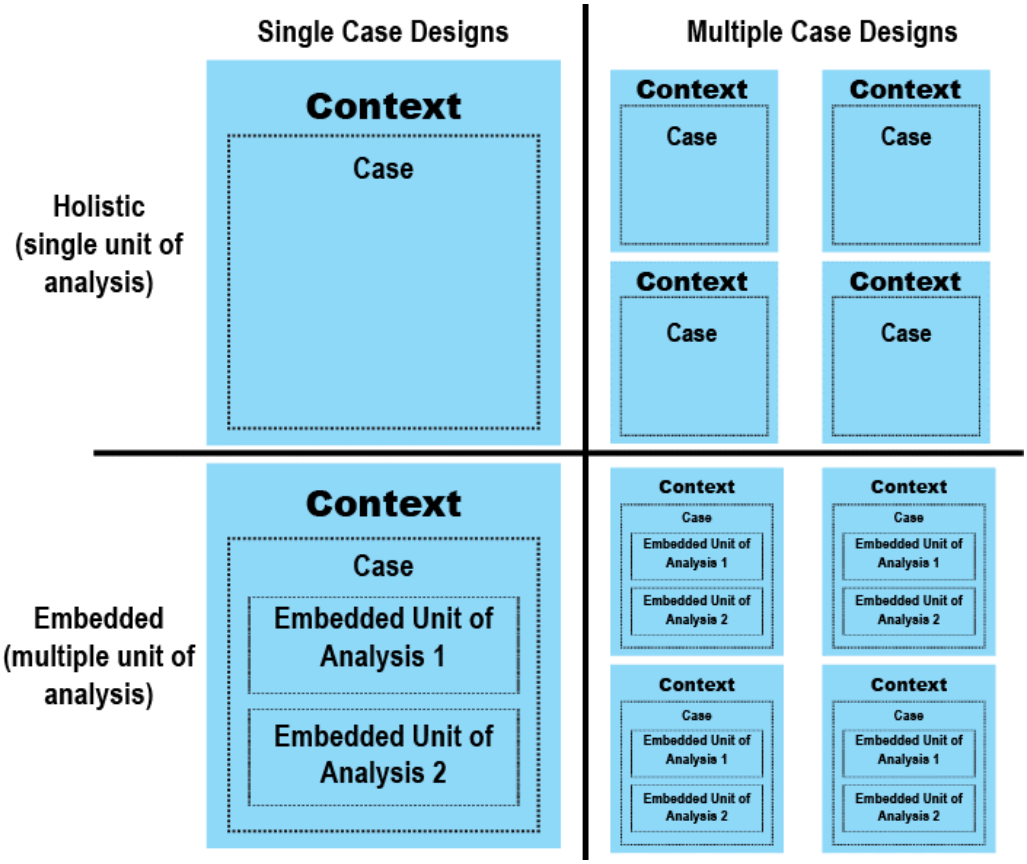

Figure 20: Case study designs, cited in Yin 2009, source: COSMOS Corporation. (pp 46)

The following multisession agenda for case study was implemented during the proceedings of the case studies.

Table 9: Case study agenda, adapted from Yin 2009 (pp 76).

Preparatory Readings: Should include the original case study proposal, if any; a field oriented methodological text; several works on the substance of the case study; and sample case studies (reports or publications) from previous case study research
Session 1: Discussion of the Purpose of the Case Study, the Main Research Questions, and the Selection of the Case(s)
Session 2: Review of the Case Study Protocol
A. Discussion of relevant theoretical frameworks and literature
B. Development or review of hypothetical logic model, if relevant
C. In-depth discussion of protocol topics (discuss importance of topic and possible types of evidence to be collected in relation to each topic)

D. Anticipated topics to be covered in the eventual case study report (helps to create consensus over the end goals)
Session 3: Methodological Review
A. Arrangement of site visit (sample confirmation letter to site)
B. Fieldwork procedures (discuss methodological principles)
C. Use of evidence (review types of evidence and need for convergence)
D. Note taking and other field practices
E. Follow-up activities (sample thank you note)
F. Project schedule, including key deadlines

5.3.1 Understanding Qualitative case data - Thematic analysis

To place the collected data into understanding and perspective, a thematic analysis was performed prior to a more in-depth grounded theory approach. This consisted of procedures to value across all the collected data and to identify the commonalities and differences between the cases. The process of applying thematic analysis helped identify the main themes in the interview transcripts and summarise all the views that were collected from the participants. The key stages for performing thematic analysis followed Patton, (1990) propositions as outlined below:

- Read and annotated the interview transcripts of 23 Academic MMs
- Identified themes in each interview transcript
- Developed a coding scheme for each case
- Coding the data from all the 23 Academic MMs
- Identifying categories, sub categories and merging all the data and variables
- Reporting on the main themes of all cases for individuality and comparisons using tables.

This technique of descriptive qualitative in the various methods laid the foundation for the next enquiry (appendix 12-13).

5.3.2 Strategy, Sampling, Data collection and Data Analysis Why?

An empirical inquiry was conducted to examine the contemporary phenomenon of development needs of academic MMs in HEIs in its depth and within its real-life situation. Themes were developed from analysing thesemi-structured interviews to produce cases at micro, meso and macro levels. Furthermore, evaluation of the richness of data facilitated individual, sub-cases and cross-cases between the participants and institutions. Analysis of the data made realistic interpretations in the

cases and explored each of them in turn and on a cross platform basis. The case studies process disseminated the most significant aspects of a post-1992 university and unveiled a contribution to case studies at micro (individual), meso (institutionally) and macro levels (nationwide). Subsequently, the practicality of the case studies drew on researchers prior knowledge acquired during the Literature review andsemi-structured interviews in an unbiased and objective manner.

5.3.3 Strategy, Sampling, Data collection and Data Analysis How?

Similarly, tosemi-structured interviews, the sampling technique used purposeful stratified sampling data of 23 academic MMs in a post-1992 university. Selection of the Academic MMs individuals and cases was based on definitions of academic MMs. At micro level 23 academic MMs semi-structured interviewees were rigorously analysed as independent cases by exploring individual participants in their social setting. Thus, this procedure facilitated channelling cross case analysis between the individual roles and sub cases between roles. Whereas, at meso level the 23 academic MMs cases were analysed and viewed under the institutional level lens between the micro levels, i.e. within the post-1992 organization and the individual 23 academic MMs cases embedded in the main study of the post-1992 organization, however, at macro level the outcomes relied on comparison with internal and external findings i.e. quantitative survey external to the post-1992 institution and internal pilot studies. Case studies evaluation further developed the themes to structure the survey questionnaire which was pilot tested twice internally before being disseminated externally for exploration and confirmation (appendix 14-21). In summary, the case studies presented an insight to the academic MMs developmental needs at the afore mentioned levels. The case studies results set a stronger platform and provide prerequisites for a survey external to the post-1992 university.

5.4 Rationale for Grounded theory

The main rationale to administer Grounded theory after thematic analysis was to analyse, compare, merge and explore emergent themes from semi-structured interviews in extensive rich detail. This immense and inductive technique of line_by_line investigation would provide the key categories for the proposed conceptual model produced using Miles and Huberman, (1994) procedures (appendix 12-13). Furthermore, this strategy would derive concepts, relationships,

and principles to understand the underlying research phenomenon under investigation.

5.4.1 Strategy, Sampling, Data collection and Data Analysis Why?

As previously mentioned in the methodology chapter, a considerable amount of literature has been published on grounded theory (Cresswell, 2007; Strauss and Corbin, 1994; Barney G. Glaser and Anselm L. Strauss, 1967; Charmaz, 2006; Charmaz, 2017; Igti, 2015; Dey, 1993; and Miles and Huberman 1994; and Miles and Huberman 1984). This study adapted the Miles and Huberman (1984, 1994) technique of grounded theory by open coding, axial coding and selective coding. pattern coding collected data during the semi-structured interviews gave rise to main categories. The analysis was conducted in three main steps, namely: data reduction, data display and conclusions. The sample size included detailed analysis of interview data from 14 academic MMs working at a post-1992 university out of 23 semi-structured interviews.

Although, grounded theory can be described as the systematic development of theory from the data through inductive and deductive approaches (Igti, 2015), the approach for this project was based on inductive reasoning where theory was generated from data gathered by observing the phenomenon, looking at patterns, hypothesing and building final theory.

Thus, theory guided processes during the research process such as coding, memo-writing, and sampling for theory development in NVIVO, and comparative methods are, in many ways neutral. However, grounded theory complemented other approaches to qualitative data analysis, such as case studies and survey, rather than standing in opposition to them and they were used as mixed methods to produce this strong research. Grounded theory strategies help a researcher focus on analysis rather than on arguments about it (Charmaz, 2006). Convergent and divergent themes were also established.

5.4.2 Strategy, Sampling, Data collection and Data Analysis How?

Detailed scrupulous approach of grounded theory analysis was applied to all data gathered during the semi-structured interviews. The interviews were transcribed in rich detail and a line_by_line analysis of the verbatim transcripts was carried out. A node structure was built consisting of themes coded. Themes totalled 264 plus 3

nodes for researchers feedback. A comprehensive matrix table is presented in (appendix 12) showing all the codes against participants. The presence of a particular aspect is denoted by value 1 and absence as 0 for all themes. Furthermore, (appendix 13) shows the grounded theory themes developed node structure under the main categories in NVIVO. Nodes were coded using this recurring technique and constantly comparing the content and analysing the words and phrases until exhaustion of all data occurred using a technique of data reduction via a ladder of analytical abstraction (Miles and Huberman, 1994). The themes were grouped in relevance to their property values producing 6 core explicit categories of: HEI changes, career trajectories, challenges of HEIs, staff experiences, skills and attributes, student events and education institutions.

5.5 Pilot study 2 Changes

The second and third pilot approached 60 academic MMs to participate via email for their opinions and remarks internally at the post-1992 university to refine the survey questionnaire prior to dissemination externally. 15 complete returns were received that considered the reliability and validity of the questionnaire and to check if the layout, questionnaire aesthetics and, instructions were comprehensible. Participants were requested to check the contents of the pilot test questions and complete findings so far. Assessment on completion time for answering the questionnaire was also vital in shortening the questionnaire to take approximately 10-15 minutes. Also, the clarity of question instructions was sought for, looking at which, if any, questions the respondent felt uneasy about answering; and whether in their opinion there were any major topic omissions. 11 feedback forms were received to update changes and prepare the survey questionnaire. The 2nd pilot ran from 16 Aug 2017 to 30 Aug 2017. The third pilot study had 25 fully completed forms and 16 feedback forms running from 14 Dec 2017 to 9 Jan 2018. Further changes were made to the questionnaire ending the testing period for it. This exercise completed the processes, procedures and amendments to fine-tune the concluding survey questionnaire inclusively. Further information in (appendix 14).

5.6 Pilot study 3 Changes

Questionnaire changes after 3rd pilot test with 25 responses with 16 feedbacks can be found in (appendix 15).

5.7 Summary of Chapter 5

Chapter 5 draws on the phase 2 qualitative part of the research. The chapter reported on various methods adopted in answering the research questions namely: semi-structured interviews, case studies, and grounded theory.

The qualitative stage was composed of semi-structured interviews with internal academic MMs working in a post-1992UK universities. The results showcased a comprehensive list of issues discussed by academic MMs that included aspects of development related to university structures, leadership and management, staff support, skills development and communication, courses, external outlook and engagement, rules, regulations and policies, mentorship and coaching, student experiences, role model and shadowing, PDPRs, team work, teaching, learning and research, accountability, reporting and responsibilities and lastly technological advances.

Case studies were also evaluated and reported on at three different levels of analysis namely micro, meso and macro. Micro cases comprised of all individual 23 embedded cases while meso level comparisons were appraised at university level. The interesting facet of research comparing a post-1992university against all other types of university was analysed at national level using macro cases between a post-1992 university against all other categories of university in single cohort. An in-depth meticulous approach of Grounded theory style of analysis was applied to all data gathered during thesemi-structured interviews. The verbatim interview transcripts were analysed in prodigious detail by overseeing line_by_line analysis and building a substantial node structure consisting of themes. The themes were grouped in relevance to their property values producing 6 core explicit categories of; HEI changes, career trajectories, challenges of HEIs, staff experiences, skills and attributes, student events and education institutions. Further information is provided in the model developmental chapter.

Table 10: Themes emergent from qualitative methods

	Theme	Semi Structured Interviews	Grounded Theory	Case studies
	'Semi-structured' Interviews			
1	University structures	✔		
2	Leadership and Management	✔		
3	Staff Support	✔		
4	Skills development and communication	✔		
5	Courses	✔		

6	External Outlook and engagement	✔		
7	Rules, Regulations & Policies	✔		
8	Mentorship and coaching	✔		
9	Student experiences	✔		
10	Role Model and Shadowing	✔		
11	PDPR	✔		
12	Team Work	✔		
13	Teaching Learning and Research-assessments	✔		
14	Accountability- Reporting - Responsibilities	✔		
15	Technological Advances	✔		
	Grounded Theory			
1	Education		✔	
2	Student Issues		✔	
3	Career Trajectories		✔	
4	HEI Changes		✔	
5	Challenges of HEI		✔	
6	Staff Experiences, Skills & Attributes		✔	
	Case studies			
1	Management			✔
2	Development			✔
3	Skills			✔
4	Leadership			✔
5	Role			✔
6	Time			✔
7	Mentoring			✔
8	Support			✔

CHAPTER 6. PHASE 3 – QUANTITATIVE SURVEY

6.1 Chapter 6 overview

This chapter reports on the quantitative aspect of the research in phase three. The rationale of the Survey Questionnaire is discussed along with strategy, sampling, data collection and data analysis. The types of variables and levels of measurements related with types of statistical analysis tests conducted in SPSS. Finally, the results and discussion of the quantitative phase are elaborated upon.

6.2 Survey Questionnaire

The survey questionnaire was conducted to gather more data in order to confirm the qualitative results. Furthermore, this exercise was necessary to explore the convergent and divergent themes in the research. The following key points expand on the rationale behind implementing the survey questionnaire.

6.3 Rationale of Survey Questionnaire

The following key points expand on the rationale behind the survey questionnaire which was pilot tested twice internally before being disseminated externally.

1. To validate the constructed conceptual model with external HEIs for confirmation on validity.
2. Uncover the answers related to the conceptual model. To capture what motivates survey respondents and what is important to them, and gather meaningful opinions, comments, and feedback.
3. To target the respondents to provide open and honest feedback in a more confidential survey method.
4. To give survey academic MMs respondents an opportunity to discuss important key topics facing them in relation to their developmental needs.
5. To communicate effectively and efficiently with academic MMs respondents and gain a broader perspective.
6. To base decisions on objective information and conduct the survey in an unbiased approach.
7. To make sensible decision-making based on analysed results and operationalizing the study by means of facts and figures.
8. To compare survey questionnaire results showing the attitudes and behaviours of academic MMs including thoughts, opinions, and comments of the target academic MMs survey population.

9. To gain valuable feedback to measure and establish a benchmark from which to compare the results.

6.4 Strategy, Sampling, Data collection and Data Analysis Why

Phase three of the study embarked on conducting a survey via a questionnaire designed, implemented, and managed online using a platform called *Bristol Online Survey (BOS)*. The BOS software aimed to capture data from academic MMs working in HEIs. The questions structure and concepts of the survey questionnaire were formulated in relation to the synthesized results obtained from the literature review, semi-structured interviews, case studies and pilot interviews. The final questionnaire was updated in line with the recommendations received from the pilot studies conducted internally in a post-1992 university. The questionnaire comprised of 7 main questions. The questionnaire was divided into 3 sections (appendix 25). A list of UKs HEIs was sought from UK Gov. (2017) totalling to 141 universities in all the different categories of universities. This survey instrument captured academic MMs from views on their developmental needs from a total of 141 UK HEIs approached to confirm and further explore the research findings. An open qualitative question number 7 requested the academic MMs to outline their top three development needs. Profiling of academic MMs working at these 141 UK HEIs was done via the internet by analysing the home page of the respective university and selecting participants stratified purposeful sampling. Sets of 3-4 people were listed from each one of the categories of academic MMs namely; 33 item sets for Principal/Senior Lecturer, 35 items set for Subject Head/Leader, 37 item sets Head of Dept./School Director and 36 item sets Deans. This totalled to 2,035 academic MMs participants approached at 141 UK universities using email requests and all ethical protocols taken into consideration. Participants were convinced in the recruitment process of their anonymity, volunteer-ship, no risk involved, and all information provided to be treated in strict confidence (appendix 22-23). This well planned and executed technique proved to give strong and unbiased opinions from the participants. 24 different lists containing details of participants were prepared and sent out from 26th January 2018 to 26th February 2018. 166 participants who responded by fully completing the survey questionnaire fulfilling the criterion of high standards and research quality, were included in the analysis. More so, the questionnaire was designed in such a tactical manner that each question captured numerous variable data components and it was designed for social media friendliness. Participants who did not complete the survey fully were disregarded

automatically by customising of BOS software. Not to mention, there was no response from one HEI called Dartington College of Arts who were approached severally times without any response. However, a thank you and reminder email was sent to all participants at all the HEIs. The full list of UK universities approached for the survey can be found in (appendix 24).

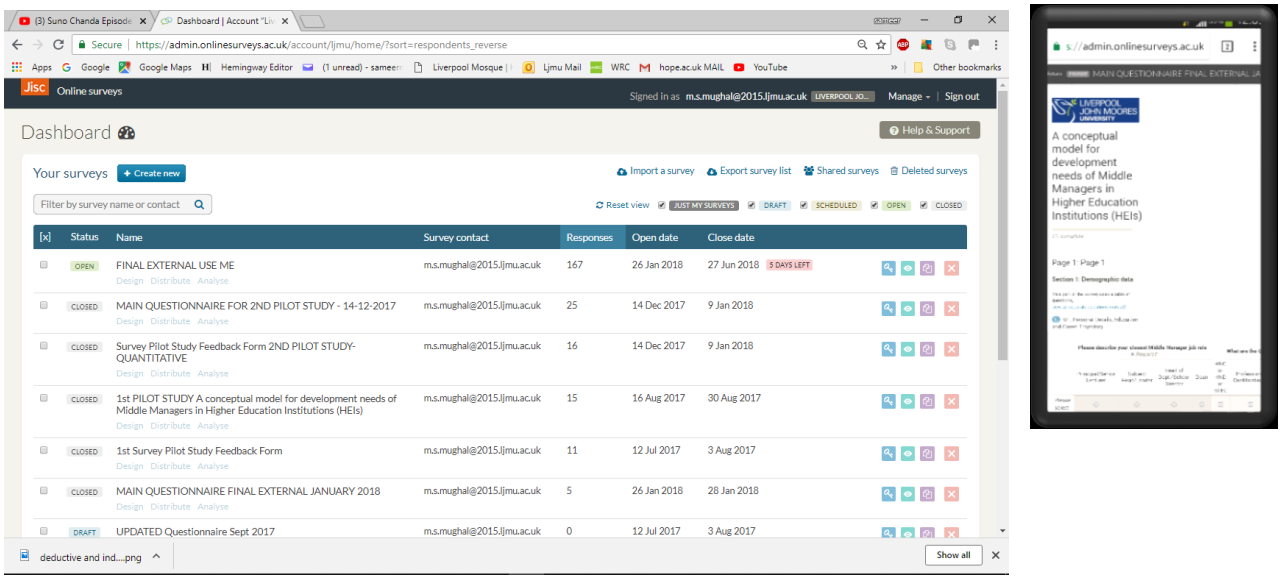

Figure 21: Screenshots of the surveys on social media platforms

The full quantitative stage documentation can be viewed in (appendix 22-26).

6.5 Strategy, Sampling, Data collection and Data Analysis How

The purpose of statistical analysis helps a researcher to summarize data into understandable and meaningful forms making exact statistical descriptions possible. Statistical analysis also helps in the identification of the causal factors underlying complex phenomena. It helps in the drawing of reliable inferences from observed data and facilitates formulating estimations or generalizations from the results of sample surveys.

6.6 Working with the types of variables

As seen in the table below, variables can be classified into main categories namely nominal (e.g. gender, male and female), ordinal (e.g. class grades) or ratio/ interval (e.g. age and wage). The 75 questions of the survey questionnaire were deliberated in 3 different levels of measurement i.e. Nominal (10 variables), Ordinal (60 variables) Interval scale (5 variables). However, none of the questions was ratio based and only three types of levels of measurements were applied. The level of

measurement was allocated to each question dependant on the questions and research objectives (appendix 27).

Table 11: Types of variables and statistic methods:

types of variable	Inferential statistics
Nominal (e.g. gender, male and female)	Compare the distribution, central tendency
Ordinal (e.g. class grades)	Crosstab, Measures of association
Ratio/ Interval (e.g. age and wage)	Regression analysis

6.7 Types of statistical analysis tests conducted in SPSS

Analysis of data refers to the critical examination of the assembled and grouped data for studying the characteristics of the object under study and for determining the patterns of relationships among the variables relating to it. Analysis may be broadly classified into descriptive and inferential statistics. Descriptive statistics describes the nature of an object under study and may describe data on one (univariate) or more than two variables (bivariate and multivariate) analysis. In contrast, inferential statistics are concerned with drawing inferences and conclusions from the findings of a research study. There are two areas of statistical inferences, statistical estimation and the testing of hypotheses (Mitra, 2016).

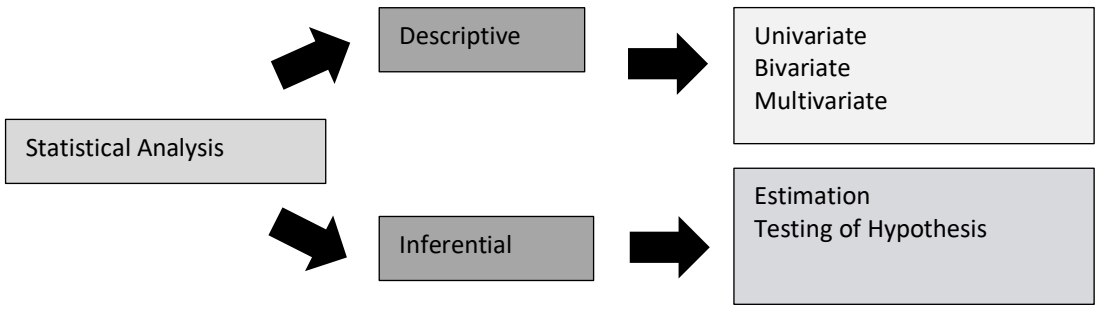

Figure 22: Statistical Analysis process – Adapted from Mitra, V., (2016)

6.8 Univariate analysis

Univariate analysis is a method for analysing data on a single variable at a time, where we're observing only one aspect of a phenomenon at a time. With single-variable data, we can put all our observations into a list of numbers. Univariate analysis explores each variable in a data set separately. Sometimes data is collected to analyse just one variable. Representation and analysis of one variable can be expressed as a frequency distribution which shows the number of times an

event occurs within the topic being researched. Also, a graph may be used to enhance univariate analysis. There are different types of graphical analysis including; histograms that convey the relationship of one group or class of the variable to the other, and frequency polygons which display the area under the curve that is represented by the values of the variable. This type of chart is also used to show time series graphs or the changes in rates over time; and lastly: Pie charts in where each slice of the chart represents the proportion of the total phenomenon that is due to each of the classes or groups. Univariate analysis on the 75 questions and variables is disclosed and represented in (appendix 28).

6.9 Bivariate analysis

On the other hand, researchers might be interested in gathering information about more than one variable using bivariate analysis when two variables are under consideration and two values are recorded for each observation. Bivariate analysis tends to observe variables under X and Y axis. Furthermore, when using bivariate analysis, we can look at the association (correlation coefficient) to predict the value of the dependent variable once we know the value of the independent variable by testing the hypotheses of association and causality. However, the measure of association often ranges between -1 and 1 the sign of which represents the direction of correlation (negative or positive relationships). The measure of association attempts to measure how values of ordered variables relate to each other. Most of such analysis begins with a simple cross tabulation as presented from (appendix 28 and appendix 32).

6.10 Multivariate analysis

Another form of analysis is the Multivariate analysis meaning that there are many variables and is usually used when referring to analyses in which there is more than one outcome variable for example principal component analysis or factor analysis (Fields, 2018). We can conclude it as an inductive approach to data analysis where we generate theory from observation, patterns and hypothesis.

In summary analysis of data refers to the critical examination of the assembled and grouped data for studying the characteristics of the object under study and for determining the patterns of relationships among the variables relating to it. Statistical analysis summarizes data into understandable and meaningful forms and helps in the identification of the causal factors underlying complex phenomena. It also helps

in making estimations or generalizations from the results of sample surveys. analysis may be broadly classified into descriptive and inferential statistics. Descriptive statistics describes the nature of an object under study. Inferential statistics is concerned with drawing inferences and conclusions from the findings of a research study. Finding answers to statistical problems by collecting and analysing data on one variable is known as univariate analysis while two variables under consideration is known as bivariate analysis. However, in bivariate analysis we test hypotheses of association and causality (Mitra, 2016).

Table 12: The different types of variables can be summarized as follows:

Univariate Data	Bivariate data
Involves a single variable	Involves two variables-independent and dependent
Does not deal with causes or relationships	Deals with causes or relationships
Major purpose of univariate analysis is to describe	Major purpose of bivariate analysis is to explain
Analysis may be done through *Central tendency* - mean, mode, median *Dispersion* - range, variance, max, min, quartiles, standard deviation. *frequency distributions* *bar graph*, histogram, pie chart, line graph, box-and-whisker plot	*Analysis may be done through* analysis of two variables simultaneously. Correlations, comparisons, relationships, causes, explanations tables where one variable is contingent on the values of the other variable.

Based on these concepts of analysing the quantitative data, only relevant tests were chosen to analyse and report on from SPSS and discussed in detail in Chapter 6.

6.11 Results and discussion

6.11.1 Survey Questionnaire tests

There are numerous methods and tests available that can be conducted on data gathered during the quantitative methodology. Hypothesis testing is mainly used where you normally test the theory through the intense analysis. Hypothesis can be described as a prediction from a theory whereas falsification is the opposite and described as an act of disproving a hypothesis or theory (Fields, 2018). Following

are the tests conducted for the survey questionnaire in SPSS during the quantitative stage of the project.

6.11.2 Validity and Reliability Testing - Cronbach Alpha

To begin the analysis, the Cronbach alpha test was conducted to check validity and reliability of the questionnaire on all the 166 valid cases with no case excluded and applied on all questions. Results disclosed a score of Cronbach's Alpha of .758 on 71 items that were relevant (appendix 30). A score above 0.7 is regarded as having good internal reliability. Therefore, the questionnaire was reasoned to be reliable and valid having undergone vigorous quality checks (using environmental validation, population validation, construct validation, criterion related (predictive) validation, ecological validation, external validation, internal validation (measurement validation) and face validation during its construction. Strict controls and protocols were followed which included two pilot tests prior to external dissemination. Full results are found in (appendix 16-21).

Table 13: Reliability statistics Cronbach alpha results

Case Processing Summary

		N	%
Cases	Valid	166	100.0
	Excluded[a]	0	.0
	Total	166	100.0

a. List wise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.758	71

6.11.3 Descriptive statistics - Demographics data analysis

A total of 166 participants completed the survey questionnaire form fully with no missing data reported with 93 male and 71 female participants while 2 preferred not to state their genders. A total of 52 (29M and 23F) Principal/Senior Lecturer participated (31.3%) and were the highest contributors followed by 46 (26M and 20F) Head of Dept. /School Director (27.7%). 43 (28M and 15F) Subject Head/Leader (26.5%) and 23 (10M and 13F) Deans (14.5%) completed the academic MMs roles cohort. HNC/HND/BTEC Qualifications were held by 4 participants (3M and 1F) (2.4%) of the 166 participants. Professional Qualification/s were held by 38 participants (17M and 21F) (22.9%) of the 166 participants. Bachelors Qualification/s were held by 66 participants (36M and 30F) (39.8%) of the 166 participants. Masters Qualification/s were held by 54 participants (30M and 24F)

(32.5%) of the 166 participants. MPhil Qualification/s were held by 10 participants (6M and 4F) (6%) of the 166 participants. PhD Qualification/s were held by 136 participants (77M, 57F, 2 not disclosed) (81.9%) of the 166 participants. In conclusion to the Qualification part, number of the participants whose highest qualification was having a PhD was 136 academic MMs (77M, 57F, 2 not disclosed) (81.9%) of the total 166 participants holding the degree. Masters was second with 20 academic MMs (12.0%), Bachelors 6 academic MMs (3.6%), MPhil 3 academic MMs (1.8%) and lastly Professional Qualification 1 academic MMs (0.6%). No participants' highest degree was an HNC or HND or BTEC.

The highest age group of the cohort were 74 MM participants (37M, 35F) (44.6%) aged between 51 – 60 years old followed by 47 MM participants (29M, 18F) (28.3%) 41 - 50, 25 Academic MMs participants (17M, 8F) (15.1%) more than 60 and lastly the lowest age group of 20 academic MMs participants (10M, 10F) (12.0%) between the ages of 30 – 40.

The highest cohort of 51 academic MMs participants (30M, 20F) (30.7%) have been working in their current HEI for 11yrs - 20yrs. 74 academic MMs participants (44.6%) have a total of over 21 years' experience working in HEIs. 70 academic MMs participants (42.2%) had no industry experience prior to joining HEI while academic MMs who had industry experience prior to joining HEIs amounted to 51 academic MMs (30.7%) having over 7 years of experience. The majority of academic MMs participants were Males at 93 (56.0%) while Females accounted for 71 academic MMs (42.8%). 2 academic MMs (1.2%) preferred not to disclose their gender. The mainstream of 147 academic MMs participants (88.6%) current employment status was permanent while 19 academic MMs participants (11.4%) worked on a contract basis at their respective HEI.

Full descriptive results for all variables are available from (appendix 32-33). including propositional statements (appendix 29) which were formulated from each variable using univariate analysis detailing on the current academic MMs position in HEIs. The level of effect is shown in Likert scales ranging from;

Academic MMs opinion was measured in 5 levels.
1. Not at all 2. Minimum 3. Moderately 4. Highly 5. Very Highly

The perceptions and attitudes scales reported on academic MMs in the survey were measured at six levels.

1. Definitely agree 2. Mostly agree 3. Neither agree nor disagree
4. Mostly disagree 5. Definitely disagree 6. Not applicable

6.11.4 Propositional Statements- Univariate analysis

Based on the results of univariate analysis for each variable in the survey, the following propositional statements are devised based upon the responses from academic MMs in 141 Universities across the UK. Initially the results portray the demographic data for participants prior to in depth analysis of the survey. Academic MMs perceptions and attitudes were measured in relation to how a particular theme affects them in their job role.

6.11.5 Test for Normality - Skewness and Kurtosis

The second test was to determine whether to use parametric or non-parametric tests by testing the normality of data distribution this was done by analysing its skewness and kurtosis on the variables. The data was tested for normality of distribution and it was found not to be normally distributed; consequently, non-parametric descriptive statistics were applied. A Kolmogorov-Smirnov (KS) test for normality and Shapiro-Wilk (SW) tests were applied to all the distributions that related to the academic MMs developmental questionnaire. Field, (2018) suggests that when performing normality tests the KS test can be used but recommends it shouldn't be used to assess whether the distribution of scores significantly differs from a normal distribution, but the SW test should be used because it has more power to detect differences from normality. Hence, the SW test might be significant when the KS test is not. Due to the volume of KS and SW tests performed, a sample histogram is shown below showing how off the values are from 0 and how graphically the data is off the bell curve. Furthermore, Field, (2018) describes positive values of skewness indicate too many low scores in the distribution, whereas negative values indicate a build-up of high scores. Positive values of kurtosis designate a heavy-tailed distribution, alternatively negative values indicate a light-tailed distribution. The further the value is from zero, the more likely it is that the data are not normally distributed, and this was evidenced in the data. The scores can be converted to z-scores by dividing by their standard error. If the resulting score (when you ignore the minus sign) is greater than 1.96 then it is significant ($p < 0.05$). In our case the values from all variables was below this threshold. Lastly, it is recommended by the

same author that significance tests of skew and kurtosis should not be used in large samples because they are likely to be significant even when skew and kurtosis are not too different from normal. Based on this analogy, NPT tests were chosen. Besides, descriptive statistics of 166 external participants showing central tendencies, skewness and kurtosis can be found in (appendix 33).

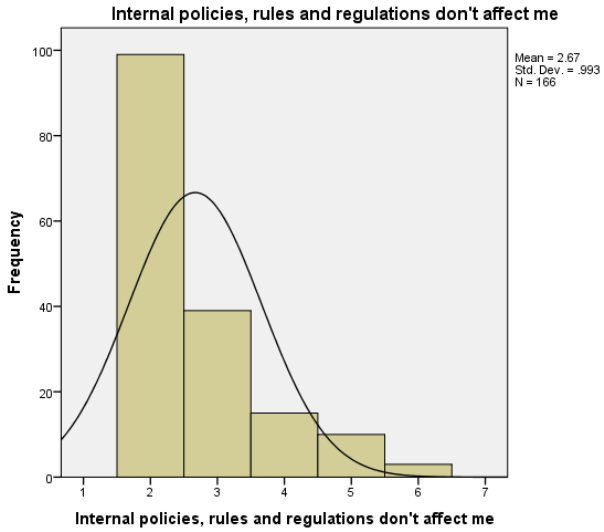

Figure 23: Skewness and Kurtosis to access normality

In summary, mostly the MM survey data was not normally distributed; this is due to the assumption of normality with categorical predictors variable in the questionnaire and sampling procedures. Hence, appropriate NPT were applied to determine the most appropriate statistical technique for the assessment of the data. Likewise, parametric tests require four basic assumptions that must be met for the test to be accurate: a normally distributed sampling distribution, homogeneity of variance, interval or ratio data, and independence not present fully in the data set. Therefore, this criterion did not match the purpose of parametric tests and for scores to be greater than 1.96, hence, NPT tests were opted for.

6.11.6 Non-Parametric tests (NPTs)

NPTs are used in cases where the data is nominal or ordinal and the assumptions of parametric tests are inappropriate. NPTs can be used to test hypotheses that don't make many of the assumptions and are known as assumption-free tests because they make fewer assumptions than the other. NPTs were adopted since data was not normally distributed as seen from tests of normality.

Statistical Test Alternatives: **Parametric** - Nonparametric

		Output variable	**Output variable**	**Output variable**
		Nominal	Ordinal	Interval Ratio
Input variable	Nominal	Chi-square	Mann Whitney Kruskal - Wallis	Unpaired t-test or Mann Whitney Paired t-test or Wilcoxon Analysis of variance or Kruskal - Wallis
Input variable	Ordinal	Chi-square Mann Whitney	Spearman Rank	Linear regression or Spearman
Input variable	Interval Ratio	Logistic regression	Poisson regression	Pearson's r, Linear regression or Spearman

Figure 24: Types of variables and parametric vs NPTs adapted from (Dalgic, 2014)

Although there are countless tests to analyse the data, one sample and spearmans correlations were tests chosen because they were appropriate with the data type. To add on this restriction, it was also because the research questionnaire produced massive results analysed from many different tests and perspectives, however only relevant tests are reported on. Time constraints and controlling the volume of the thesis also was a deterrent factor in reporting other tests conducted.

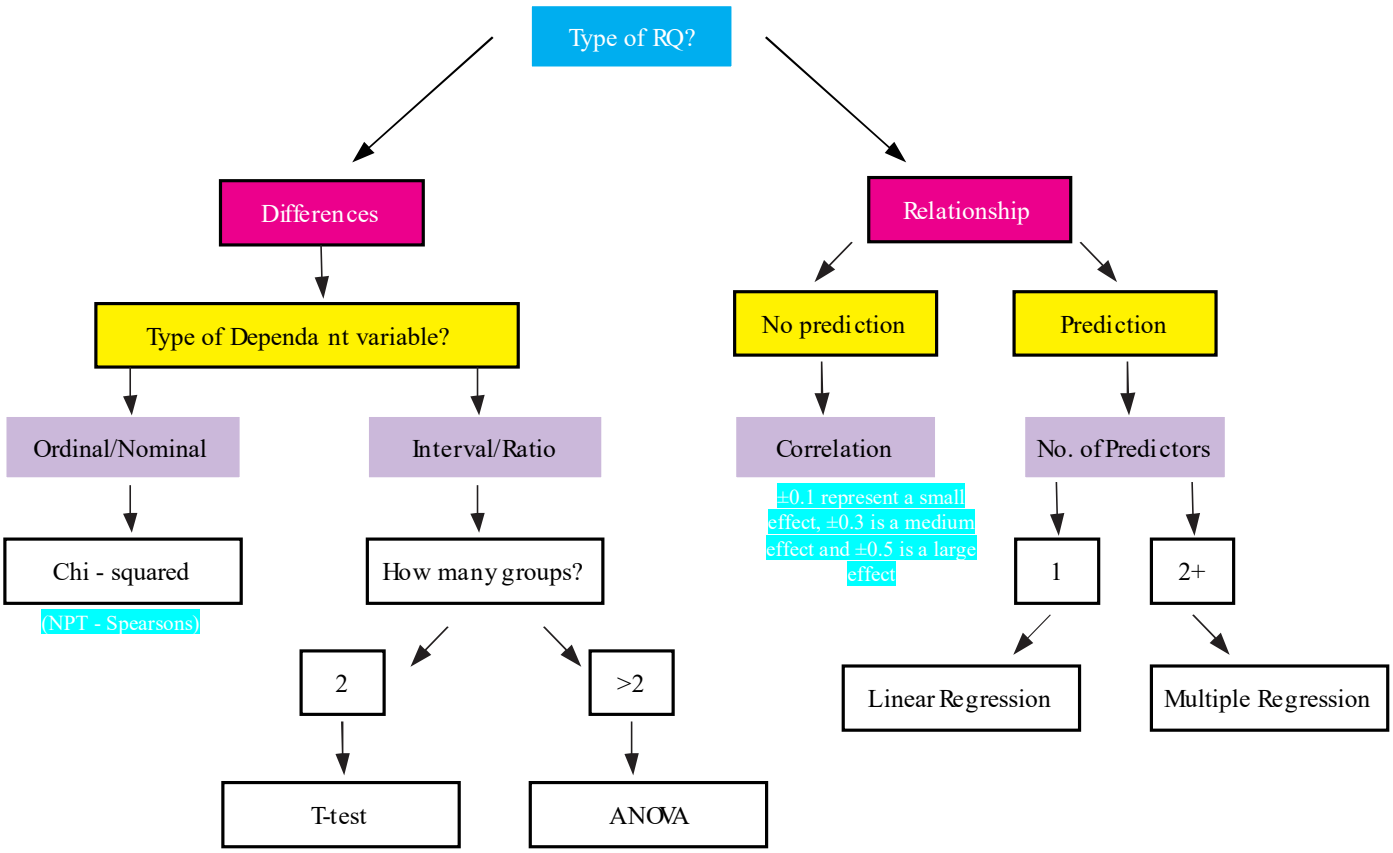

Figure 25: NPTs conducted

6.11.7 NPT- One Sample test

A one sample automated NPT was chosen in SPSS. The objective was to identify differences in a single variable using one or more NPT. The comparison of observed data was hypothesised automatically using Chi squared test, Binomial test, and Kolmogorov-Smirnov test based on the data variables. Also, the field incorporated the use of predefined roles of the academic MMs by testing all the fields in the survey questionnaire prior to running the tests. Besides, the tests were chosen based on the data type by comparing observed binary probabilities.

Results showed One sample chi squared test was applied to questions 1 all the way to question 61, and questions 63, 64, 66, 68, 70, 72, 74 and lastly 75. Results showed one sample binomial test applied to questions 62, 65, 67, 69, 71, and 73. It can be interpreted that when $p>.05$ we accept null hypothesis meaning data is not significant and proves nothing while when $p<.05$ we reject null hypothesis meaning data is significant. (Statistical Significance, 2008) present a simple guidance to probability significance testing ranging from data being not significant to data being excellent based on the following probabilities.

p>.10 not significant

p<.10 marginal

p<.05 fair

p<.01 good

p<.001 excellent

Based on this criterion. The questions were assessed using these values as shown in the table below;

Table 14: Significance based on Chi squared and Binomial tests

Question 1 - good	Question 2 - good	Question 3 - good
Question 4 - good	Question 5 - good	Question 6 - good
Question 7 – not significant	Question 8 - good	Question 9 - good
Question 10 - good	Question 11 - good	Question 12 - good
Question 13 - good	Question 14 - good	Question 15 - good
Question 16 - good	Question 17- good	Question 18 - good
Question 19 - good	Question 20 - good	Question 21 - good
Question 22 - good	Question 23 - good	Question 24 - good
Question 25 - good	Question 26 - good	Question 27 - good
Question 28 - good	Question 29 - good	Question 30 - good
Question 31 - good	Question 32 - good	Question 33 - good
Question 34 - good	Question 35 - good	Question 36 - good
Question 37 - good	Question 38 - good	Question 39 - good
Question 40 - good	Question 41 - good	Question 42 - good
Question 43 - good	Question 44 - good	Question 45 - good
Question 46 - good	Question 47 - good	Question 48 - good
Question 49 - good	Question 50 - good	Question 51 - good
Question 52 - good	Question 53 - good	Question 54 - good
Question 55 - good	Question 56 - good	Question 57 - good
Question 58 - good	Question 59 - good	Question 60 - good
Question 61 - good	Question 62 - good	Question 63 - good
Question 64 - good	Question 65 - good	Question 66 - good
Question 67 - not significant	Question 68 - good	Question 69 - good
Question 70 - good	Question 71 - good	Question 72 - good
Question 73 - good	Question 74 - good	Question 75 - not significant

Further details can be found in (appendix 34) showcasing a table of null hypothesis testing with summary as applied to all the questions with significance based on Chi squared and Binomial test.

6.11.8 Correlations

Spearman's correlation coefficient, r_s, is a non-parametric statistic and requires only ordinal data for both variables (Fields, 2018). Alternative related tests which can be conducted are Kendall's tau-b or Goodman and Kruskal's gamma. However, to

conduct the Spearman's correlation the following assumptions must be considered when carrying out test.

Assumption #1: Your two variables should be measured on an ordinal, interval or ratio scale.

Assumption #2: There is a monotonic relationship between the two variables. A monotonic relationship exists when either the variables increase in value together, or as one variable value increases, the other variable value decreases (Laerd Statistics, 2016).

Therefore, a Spearman's correlation coefficient, r_s, test was applied on all the relevant data collected. Though there were multiple relationships found between one variable and others, the most appropriate strongest positive or negative relationship is reported on. A sample of how the data could be interpreted and reported is found below. Due to the volume of the thesis, comprehensive mixed methodology and time constraints for the project, the entire analysis is presented in (appendix 35) with the positive and negative correlations between variables highlighted in gold colour. Greater emphasis is placed on factor analysis foregoing these results.

A Spearman's rank-order correlation was run to determine the relationship between *describe your closest academic Middle Manager job role* with other variables in the questionnaire. Results showed that there was positive/negative correlation between closest academic Middle Manager job with 27 variables. The most critical relationship was with Strategic/operational planning which is a crucial variable. There was strong, negative correlation between these variables which was statistically significant where r_s=-.423, and statistically significant values of (p<.000).

A Spearman's rank-order correlation was run to determine the relationship between *MM Highest Qualifications -NEW* with other variables in the questionnaire. Results showed that there was positive/negative correlation between closest Middle Manager job with 9 variables. The most critical relationship was with Research Excellence Framework (REF). There was strong, positive correlation between these variables which was statistically significant where r_s=0.322, and statistically significant values of (p<.000).

6.11.9 KMO, Bartlett's Test of Sphericity and Factor analysis

After identifying the variables and applying the level of measurements to the variables, individually, two approaches were possible either inductive or deductive and both were considered. The factor analysis approach looked at data for strong or weak correlations and ran an anti-image correlation process which analysed every variable by its strengths of correlation with other variables grouping those in terms of high-medium-low factors.

Fields, (2018) suggests that preliminary analysis whether to conduct factor analysis entails that KMO and Bartlett's tests be run. The KMO measure should be used as an index of whether there are linear relationships between the variables and whether it is suitable to run a Principal Component Analysis (PCA) on the data set. Its value can range from 0 to 1, with values above 0.6 suggested as a minimum requirement for sampling adequacy, but standards above 0.8 considered good and suggestive of principal component analysis being useful. A KMO measure can be calculated for all variables combined and for each variable individually. Therefore, KMO and Bartlett's Test was conducted on all but two questions; Question 1 comprised of a demographics-based set of questions and question 7 was an open string question, hence not tested using this method as they were irrelevant. The overall rating of Kaiser-Meyer-Olkin measure of sampling adequacy was .724 and middling a fraction away from being meritorious as seen in recommendations placed by Laerd Statistics, (2015).

KMO Measure	Meaning
KMO ≥ 9	Marvellous
0.8 ≤ KMO < 0.9	Meritorious
0.7 ≤ KMO < 0.8	Middling
0.6 ≤ KMO < 0.7	Mediocre
0.5 ≤ KMO < 0.6	Miserable
KMO < 0.5	Unacceptable

Bartlett's test of Sphericity tests the null hypothesis that the correlation matrix is an identity matrix. An identity matrix is one that has 1's on the diagonal and 0's on all the off-diagonal rudiments. This suggests that if there are no correlations between any of the variables then PCA is not possible by reducing the variables to a smaller number of components. As such, you want to reject the null hypothesis. Furthermore, (Fields, 2018) laments that a Bartlett's test of Sphericity will usually be significant when the value of Sig. will be less than 0.05, if it's not, you can't conduct PCA. The result from running the Bartlett's Test of Sphericity on our data showed

significance level of .000 which was less than 0.05 hence the tests proved that PCA was highly recommended for the data.

Table 15: KMO and Barlett's test results

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.724
Bartlett's Test of Sphericity	Approx. Chi-Square	3749.808
	df	1431
	Sig.	.000

When conducting factor analysis, we try to discover what the underlying linear factors might be within the data. One method to do this is by using principal axis factoring which was used to locate these factors by extracting if the factor is important based on its Eigen value which is a measure of how much variance a variable has within the data. The rotation is used for minimizing or maximizing the loadings of variables on a factor. Oblique rotation was a realistic assumption to use as the variables were correlating in one way or other as opposed to orthogonal rotation e.g. using varimax were each variable is treated independently. Hence direct oblimin was selected under oblique rotation. No cases were excluded in the list of choices. The coefficient display format was set to sort the variables by size and suppress small coefficients, so they don't appear in the table as blank spaces and set to .3. The results showed the 54 questions initially extracted 54 factors. Using the Eigen value of 1 and above 16 factors were extracted after computation. A visual test using a scree plot to verify this extraction was conducted. The table below expresses the total variance results by using Principal Axis Factoring extraction method.

Table 16: Total Variance results by extraction method: Principal Axis Factoring.

Total Variance Explained						
	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	8.036	14.882	14.882	7.620	14.112	14.112
2	4.771	8.835	23.717	4.372	8.096	22.208
3	3.866	7.158	30.876	3.470	6.426	28.634
4	2.484	4.600	35.475	2.014	3.730	32.364
5	2.009	3.721	39.197	1.517	2.810	35.173
6	1.853	3.431	42.628	1.433	2.654	37.828
7	1.622	3.004	45.632	1.163	2.154	39.982
8	1.569	2.906	48.538	1.106	2.047	42.029
9	1.539	2.851	51.389	1.040	1.925	43.954
10	1.358	2.514	53.903	.852	1.577	45.531
11	1.294	2.397	56.300	.806	1.492	47.023
12	1.258	2.329	58.629	.722	1.336	48.360

13	1.151	2.131	60.760	.634	1.174	49.534
14	1.114	2.063	62.823	.625	1.158	50.691
15	1.088	2.014	64.837	.565	1.047	51.738
16	1.065	1.973	66.810	.538	.997	52.735
17	.985	1.824	68.634			
18	.946	1.752	70.386			
19	.912	1.689	72.075			
20	.877	1.623	73.698			
21	.829	1.535	75.234			
22	.803	1.487	76.720			
23	.793	1.468	78.188			
24	.734	1.359	79.548			
25	.690	1.278	80.825			
26	.656	1.215	82.040			
27	.641	1.187	83.227			
28	.625	1.157	84.384			
29	.603	1.117	85.501			
30	.566	1.048	86.548			
31	.555	1.027	87.575			
32	.518	.959	88.534			
33	.495	.917	89.451			
34	.466	.863	90.314			
35	.447	.829	91.142			
36	.407	.753	91.895			
37	.398	.737	92.633			
38	.391	.724	93.357			
39	.374	.693	94.049			
40	.337	.624	94.674			
41	.331	.613	95.286			
42	.290	.537	95.824			
43	.273	.505	96.329			
44	.268	.496	96.826			
45	.257	.477	97.302			
46	.230	.427	97.729			
47	.197	.365	98.094			
48	.192	.355	98.450			
49	.185	.343	98.793			
50	.166	.307	99.100			
51	.153	.284	99.384			
52	.131	.243	99.627			
53	.115	.212	99.840			
54	.087	.160	100.000			
Extraction Method: Principal Axis Factoring.						

A scree plot was outlined showing the Eigen values against the factors to see if the factor extraction was reasonable that showcased the curvature at three points of inflexion at 6, 10, and 17. However, the extraction produced 16 factors and meant that the extraction was rational and applicable.

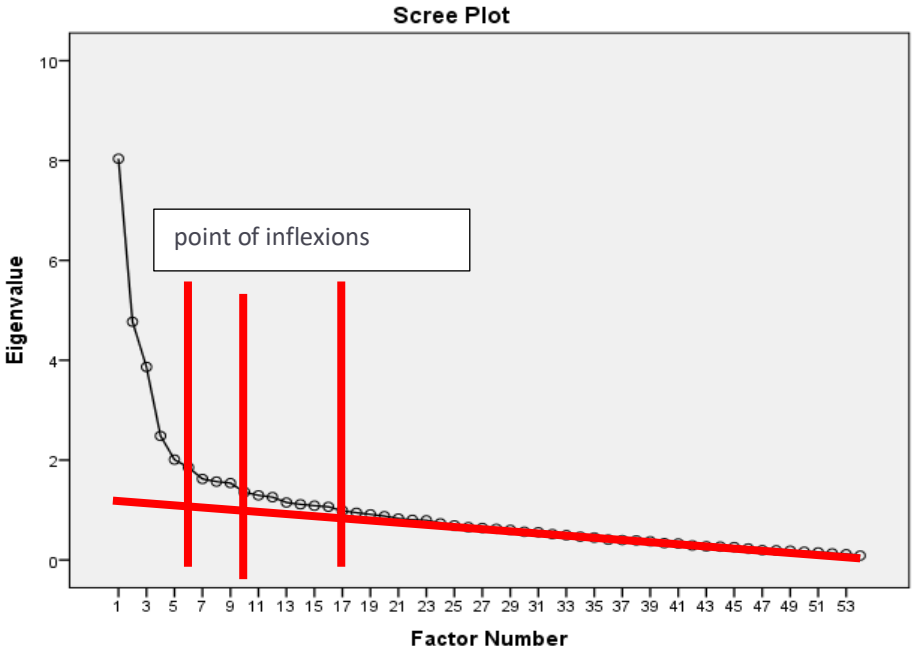

Figure 26: Factor analysis scree plot

Then a pattern matrix was analysed to gauge on which variable loads onto which factor/s (appendix 42). The blanks cells that had values of <.3 were automatically administered to be ignored in SPSS to give appropriate and reliable results. The 16 different factors consisting of relevant themes were grouped together and named. However, the emergent factors were defined using grouped themes content structure produced via factor analysis. Also, the theoretical findings during the literature review process, questionnaire design and researcher's knowledge of the data during the projects cross-sectional period highly influenced on determining the factors as discussed following in the model development chapter.

In conclusion, the process of adopting the Factor analysis approach assisted in reducing the load of all variables into a few categories. However, the emergent factors were nameless and related factors were grouped together in a particular category which was given a name based on the content. These groups were defined by contents, theoretical knowledge of the literature and questionnaire design and researchers knowledge of the data during this study. The next step was to look at the content of questions that load highly on the same factor and identify common themes in the factor. The mathematical factors represented around a real-world construct using common themes between highly loading questions assisted in identifying what that construct might be. Factor extraction using the principal axis factoring method with oblimin rotation and Kaiser Normalization was used. A total of 16 factors emerged consisting of grouped themes which were named. Hence, a

confirmatory model was prompted out of the data. A visual representation of factors is presented in the model development chapter.

6.12 Question 7- qualitative responses

Question 7 was designed as an open question for participants to record qualitative data emphasizing on the top three areas of development that would support them in their job role. All 166 respondents replied to the Questions.

6 (4%) Academic MMs had more than 3 development needs, **101 (60%)** Academic MMs had 3 needs, **12 (2%)** Academic MMs had 2 needs, **22 (13%)** Academic MMs had 1 need, **10 (6%)** Academic MMs left the space blank or had no development needs, **3 (2%)** MM showed no comment or interest in answering the question, **3 (2%)** Academic MMs said they didn't know, **6 (4%)** Academic MMs expressed not applicable option, **3 (2%)** Academic MMs chose other reasons. The tables below summarize these findings. There was no missing statistical data.

Table 17: All 166 valid cases with no missing case

Statistics		
Overall, what are the top three areas of development that would support you in your role?		
N	Valid	166
	Missing	0

The table below was generated manually by analysing the data using constant comparison technique applied to all cells and identifying the reoccurring data for each of the 166 respondents. The data was categorized under two facets. A numeric number was assigned to each respondent who had development needs and string data for respondents who didn't provide a value. However, the researcher corrected typos made by respondents. As, seen in table below majority of the participants had 3 developmental needs. Moreover, String data from qualitative open question 7 in the survey is displayed in (appendix 36). Furthermore, themes emergent from question 7 from survey questionnaire are displayed.

Table 18: External response to open question 7

Question 7 Respondents											
No. of Developmental needs		**More than 3**	**3**	**2**	**1**	**Blank or None**	**No comment/ interested**	**Don't know/?**	**N/A**	**Other**	**Total**
	MM Roles	6	101	12	22	10	3	3	6	3	**166**
	% (rounded off)	4%	60%	7%	13%	6%	2%	2%	4%	2%	**100%**

Table 19: Themes emergent from question 7 from survey questionnaire

Word	Length	Count
management	10	55
research	8	39
time	4	25
training	8	22
development	11	21
managing	8	17
people	6	17
leadership	10	15
support	7	15
skills	6	14
financial	9	11
student	7	11

6.13 Summary of Chapter 6

Chapter 6 was phase three of the project and reported on the quantitative characteristic of the research. Firstly, the rationale of the survey questionnaire was discussed with its strategy, sampling, data collection and data analysis. the chapter showcased the types of variables and levels of measurements related with types of statistical analysis tests conducted in SPSS. Finally, the results and discussion of the quantitative phase were expanded upon. The other dimension of the research presented the survey questionnaire to 166 external academic MMs under quantitative data collection and analysis. Only fully completed questionnaires were accounted for to enhance the quality of research. Several tests were accomplished from the quantitative data which commenced with validity and reliability testing using Cronbach alpha whose results were positive at .758. Comprehensive descriptive statistics was carried

out on the data at univariate, bivariate and multivariate levels. 100 propositional statements were outlined preceding univariate analysis of the data showing frequencies tables and cross tabs. Furthermore, the descriptive statistics reported standard deviation, central tendency, dispersion, skewness and kurtosis. Test for normality was also carried out to anlayse the distribution of data using the skewness and kurtosis. The results showed that mainstream data was not normally distributed hence NPTs were relevant. Although there were several NPTs conducted due to constraints only two tests were included namely: One Sample test and Correlations.

Correspondingly, a KMO test, Bartlett's test of Sphericity was undertaken to evaluate the likelihood of conducting factor analysis. The test was positive and principal component analysis was applied to reduce all the elements in the questionnaire. Also, the resulting themes were grouped together in SPSS and named according to the essence of its properties. A total of 16 factors were extracted from the loading of the data using the principal axis factoring method with oblimin rotation and Kaiser Normalization. Therefore, a confirmatory model was prompted out of the data.

Finally, evaluation of the string open question 7 was analysed showing the qualitative responses of the 166 academic MMs who participated in the survey via word cloud and table. 12 main categorical themes emerged from the analysis of data consisting of: management, research, time, training, development, managing, people, leadership, support, skills, financial and students. String data from qualitative open question 7 are explicitly displayed. Further information is discussed in the model development chapter.

Table 20: Themes emergent from quantitative method

	Theme	**Survey Questionnaire**	**Factor Analysis**
	Survey Questionnaire		
1	Research Excellence Framework (REF)	✔	
2	National Student Survey (NSS)	✔	
3	Government Bodies	✔	
4	Internal policies, rules and regulations	✔	
5	Pressure and workloads	✔	
6	Strategic/operational planning	✔	
7	Programme/Curriculum design	✔	

8	Student complaints	✔	
9	HEIs commercialisation	✔	
10	Changes in HEIs	✔	
11	International programmes	✔	
12	University outlook and image	✔	
13	Bureaucratic processes	✔	
14	Accountability and Reporting	✔	
15	Complaints and Legal Issues	✔	
16	Increase in Student Numbers	✔	
17	Balancing workloads & work-life	✔	
	Factor Analysis		
1	Time management and coherence		✔
2	KPIs		✔
3	Teaching, learning and student issues		✔
4	Responsibility		✔
5	Staff severances		✔
6	Skills building		✔
7	External influences		✔
8	Internal and external bureaucracy		✔
9	Job role pressures		✔
10	Communication and job satisfaction		✔
11	Policies, rules and regulations		✔
12	Decision making and deliverables		✔
13	Programmes development and technology		✔
14	University structures		✔
15	Leadership and management skills, staff support and rewards		✔
16	HEIs changing, accountability and reporting		✔

CHAPTER 7. MODEL DEVELOPMENT

7.1 Chapter 7 overview

This chapter reports on model development in mixed methodology. The chapter commences with discussion of findings in the qualitative phase through semi-structured interviews. It discloses the key themes which arise from this phase. The qualitative stage comprising of case studies measured at three different levels micro, meso and macro. Then, the chapter presents another qualitative intervention using grounded theory. Also, the chapter then analysis the 2nd part of the mixed methodology in the quantitative stage via a survey questionnaire. The final aspect of the chapter discusses the innovative conceptual model and presents a model statement of the various methods adopted in answering the research questions.

7.2 Introduction

The findings from different strategies consisting ofsemi-structured interviews, case studies, grounded theory and survey for this research project, paint a rich and varied picture of the current standing of UK HEIs, and its implications on academic MMs. The interventions needed for academic MMs development needs are discussed in detail in both mixed methodologies.

7.3 Qualitative Stage - semi-structured interviews

Below are brief statements yielding themes regarding the findings during the semi-structured interviews. The complete rich detailed semi-structured interview transcripts can be found in (appendix 8). Also, sample statements from the interviewees transcripts highlighting key themes found out are shown followed by an overall synopsis.

7.3.1 University structures

A fundamental aspect in HEIs observed during thesemi-structured interviews which create issues for academic MMs, is the understanding of the core structures of HEIs including organization hierarchies, course programmes, pay scale structures, student development, department restructuring, monitoring staff, structure of the university, formalized managerial structure, communication in structures, structured courses, programmes and meetings,

structure to progress in career trajectories and an overall good support structure.

7.3.2 Leadership and management

The second finding highlighted during the semi-structured interviews is the aspect of Leadership and Management for both HEIs and academic MMs that entail issues such as; line managing staff, people management in general, resource management, financial management, dealing with grievances, gaining management and leadership skills, leading and managing research, effective leadership development, leadership and management styles, succession planning.

7.3.3 Staff support

The third finding showed a number of factors identified during the semi-structured interviews: the aspect of staff support for both HEIs and academic MMs which entail issues such as; team support, coaching and mentorship, support structure, block release programmes, support in student issues, staff confidence building, promotions and rewards, supporting staff in career progression both internally and externally to the HEIs, support from senior team and supporting junior staff new in their role, improve and manage development system for academic MMs, develop knowledge with industry stakeholders, academic MMs engagement in training and development, support services by HEIs systems in bureaucratic issues, dealing with internal and external complaints, supporting line managing staff, have faculties and structures that support staff and research e.g. from bodies like professional services, keeping with international global context, HR playing their role in academic MMs development, support and guide staff in their career trajectory, seek and manage operative budgets for staff support, programmes delivered on skills related issues such as making presentations, research and teaching skills, supporting outcome measures like key performance indicators and managing staff.

7.3.4 Skills development and communication

The fourth finding during the semi-structured interviews was a sense amongst interviewees about the necessity of skills development and communication for both HEIs and academic MMs such as; various skills were reported which included career progression skills, time management skills, writing skills, analytical skills, people skills, leadership and management skills, interpersonal skills, negotiations skills, communication skills, bureaucracy skills, and students skills to deal with pressure coming from them. However, well-organized developmental programmes were sought via different courses for academic MMs, also, skills relevant to academic MMs PDPR. The participants expressed their views on good practices and people supporting exchange between staff such as technical, administrative and academic staff being encouraged to develop their skills and competencies all the time through development programmes.

7.3.5 Courses

A variety of perspectives were expressed in the fifth finding related to courses during the semi-structured interviews for both HEIs and academic MMs which demand matters such as; better management courses like procedures, programme development, writing programmes, documentation, identifying people's individuals needs through the PDPR process, personal development courses, mandatory courses at the university e.g. ethical diversity, disability courses dealing with data security, health and safety. Besides other courses suggested by the participants involved block release programmes, continuing professional development (CPD) courses, leadership courses, people and budget managing courses, student experiences related courses, courses on being a supervisor, courses dealing with accrediting bodies, courses on recruitment and grievance procedures, courses on understanding process and procedures, research courses and digital technology courses.

7.3.6 External outlook and engagement

In their accounts for events surrounding external outlook and engagement, the sixth finding during the semi-structured interviews presented various challenges experienced by academic MMs such as; issues with external

engagement through marking, external work, consultancy, research bids, editing papers, writing papers, collaborative programmes, growing international base as part of the university strategy, increasing international staff base, learning about marketing, HR, finance, leadership, management, engagement with strategic initiatives, knowledge transfer industry and government, external examination, talking to other people in universities about their experiences of teaching or assessing or managing, improving and maintaining league tables, formal and informal meetings with industry and academia, attending lecture series, professional networking and course conferences, dealing with external compliance units, harnessing benchmarks or frameworks and maintaining HEIs prestige.

7.3.7 Rules, regulations and policies

There was a sense of a high volume of rules, regulations and policies amongst the interviewees as found in the seventh finding of the semi-structured interviews. Results showed issues engrossed academic MMs in topics such as; legislation matters linked to REF (Research Excellence Framework) for the research access, TEF (Teaching Excellence Framework), exam boards, accreditations, validations, reporting, university policy with regards to students policies, research, teaching and learning, government policy to increase the number of students, new rules, regulations and policies to be online, academic frameworks, dealing with student related policies and fees, balancing paper work, administration, markings, strict deadlines, balancing family life, student feedback, other policies driven by indicators such as NSS. Furthermore, various factors contributed to managing increased pressure from managers above based on accountability, responsibility, provision of indicators, provision of data, performance, how programmes were performing, how the schools were performing, regulatory frameworks, information on legal consequences, university regulations on budgets and financial aspects, knowing HR rules, policies and procedures, international policy, operationalize policies like staff discipline policy, managing sickness and absence policies.

7.3.8 Mentorship and coaching

The eighth finding highlighted during the semi-structured interviews is the position of mentorship and coaching for both HEIs and academic MMs which compel issues such as; both external and internal mentorship and coaching desired by academic MMs to be supported in their roles. Also, senior staff acting as a mentor and coach in supporting academic MMs for university related matters e.g. by moderation during meetings, advice on developing research profile, understanding and explaining the procedures laid down by the university, providing formal and informal mentoring through role models. Furthermore, mentorship and coaching could be provided through team work, peer support through formal and informal mentoring by developing communities of practice locally and externally. It was suggested that 360-degree courses on leadership and management should be aligned with coaching and mentorship programmes to assist academic MMs through role modelling e.g. Aurora leadership foundation exclusively for women.

7.3.9 Student experiences

The views which surfaced during the ninth finding from semi-structured interviews related to student experiences. Various concerns were highlighted for both HEIs and academic MMs alike; Government policy on increasing the number of students allowed in education, pressures to bring in external funding, dealing with student problems which are identified within a personal tutor role, students requiring support and dealing with their expectations. complaints about student behaviour during study periods, managing students and their parents expectations during application processes were reported. Interestingly, in the past students highlighted their academic satisfaction by participating in the P-TEST survey which had now been upgraded to the National Student Survey (NSS) for modules and evaluation in general. Another key challenge was investment for students' facilities and understanding and responding to students' needs due to their perceptions and changing behaviour since inception of fees. HEIs were also being measured by widening participation for students, designing effective and interesting student programmes and maintaining student retention rates. Besides, the need to

provide information on all the league tables based on rankings and course provision and staff student ratios were also reported.

7.3.10 Role model and shadowing

The participants overall demonstrated the importance of role model and shadowing. The tenth finding highlighted this phenomenon during the semi-structured interviews for both HEIs and academic MMs. This entailed issues such as: experienced and retired staff providing role modelling and shadowing for junior and less experienced staff. Gaining knowledge from experienced staff was crucial though a few participants reported a lack of role models and demanded an increase in role models, shadowing and peer support. Besides, supporting new staff, promoting community interaction and a collegial form of development from peers was needed. For academic MMs career progression advice and support required for seeking opportunities and knowledge.

7.3.11 PDPR

The eleventh finding underlined during thesemi-structured interviews showcased the perspective of Personal Development and Performance Review (PDPR) for academic MMs. Personal development for academic MMs could be achieved through teaching, research and learning programmes. Although a handful of academic MMs testified that PDPR affiliated programmes were running developmental exercises which were structured in a “tick the box” attitude. However, the HEI provided formal and informal PDPR’s for those staff who required skills and to improve their staff working weaknesses via PDPRs processes. Furthermore, it was suggested that the PDPR review process with line managers be transparent and realistic PDPRs be provided based on academic MMs actual needs. Academic MMs recommended that job descriptions be clear cut outlining their roles and be well defined. In conclusion, academic MMs wanted development courses in place which were suited to their needs and not generic.

7.3.12 Team work

The twelfth finding featured during the semi-structured interviews was the attribute of team work for both HEIs and academic MMs which compel

concerns such as: developing and supporting the people in the team, building on team working skills, attending meetings and forums related to teams, seeking support and advice for issues through dialogue, improve culture on information provision and staff supporting one another, sharing good practice between individuals and teams, every academic MMs having team spirit and fulfillings the role as an excellent team player, teams connecting with their students and in HEIs hierarchy, teams who are well-motivated and well-focused, having a good staff HR development team, reducing the blame culture, better connection between service teams and lastly teams laid down to building academic MMs confidence.

7.3.13 Teaching, learning and research

The thirteenth finding from the semi-structured interviews expressed the importance of teaching, learning and research for both HEIs and academic MMs which entail issues such as: perspectives of the university strategic plan addressing all that is important for teaching, learning and research, student partnership, industrial and enterprise partnerships, collaborative programmes e.g. Higher Education Academy (HEA) and working with the HEA. Efficient teaching and learning particularly with the TEF (Teaching Excellence Framework), conducting research in prestigious research projects linked to the research excellence framework and increase funding. Also, university developing international profile and recruiting staff with good research potential, student recruitment and future staff recruitment. Additionally, the teaching, learning and research relied on student experiences into how to inspire and motivate students in their courses. Academic MMs needed to balance research, learning, teaching, and administration e.g. with student results. Improving and delivering on teaching materials and teaching quality. Publishing in journals and participating in conferences and seminars. Besides, academic MMs needed the skills in dealing with heavy teaching, learning and research loads to produce various outcome measures.

7.3.14 Accountability, reporting and responsibilities

The fourteenth finding during the semi-structured interviews reported by the informants was on accountability, reporting and responsibilities for both HEIs

and academic MMs which comprised issues such as: senior staff such as heads of department who have lots of responsibilities demanded accountability and reporting and responsibility from other staff included themselves and teams due to changes in policies. This was the norm in the hierarchical structures of HEIs. Leadership and management roles dealing with the academic framework was full of accountability, reporting and responsibilities. Also, transparency was stipulated by academic MMs due to increasing pressure from managers and HEIs in fundamentals such as data analysis, committees responsibilities, dealing with office of independent adjudicator, dealing with stress, support in career trajectories, financial matters, student retention, people management, administration, bureaucracy, legal perspectives, risk management which was full of reporting of progression, outcomes, monitoring and action plans.

7.3.15 Technological advances

The fifteenth finding accentuated during the semi-structured interviews is the aspect of technological advances faced by HEIs and academic MMs which entail concerns such as; HEIs investing in new technology, internet, placing university documents online through software like blackboard, provide course material for students' online, providing staff documents such as induction handbook online. Academic MMs dealing with computer systems, software changes, digital technology, and technological encroachments courses aimed at academic MMs career progression.

A visual representation of thesemi-structured interviews findings is found in the conclusion chapter.

7.4 Qualitative Stage - Case studies

The case studies process propagated on the key significant aspects internally of a post-1992 university and externally with 141 HEIs in UK. The case studies further highlighted on expanding research using micro (23 individual cases), meso (1 institutional case) and macro levels (1 nationwide case). However, analysis of the macro case was obtained from second pilot study data prior to externally conducting a survey with 141 UK HEIs.

7.4.1 Micro cases – individual embedded cases

The micro cases comprised of individual embedded cases of 3 deans, 7 HOD, 4 Subject heads, 7 Programme leaders, 1 Development provider and 1 Emeritus professor. The demographic data showed results of gender distribution encompassing 12 males and 11 females. The total age of all 23 participants amounted to 1,182 with average of 53.72 years each. However, one participant who was a male did not disclose his age. The 23 participants' total service in all the participating HEIs amounted to 565 years with an average of 24.56 years each.

Following is a complete synopsis of each individual embedded case showing themes related to their developmental requirements.

The first micro case was a male dean aged 50-60 with pseudo name MM4 whose academic MMs role was defined. The participant held a PhD and studied in 1 HEI during academic endeavours on a full-time basis. The participant achieved further qualifications and came to work from industry to his current HEI in a permanent position. Also, the participant held various roles in his career trajectory of research assistant, lectureship, programme leader, subject head, professorship and currently in the position of dean. To date the participant holds a total of 25 years' working experience in HEIs. 13 different themes related to his developmental needs were reported.

Table 21: Micro Case 1 - DEAN - MM 4 - M – 50-59 - Y

Micro Case 1
1. Training
2. Workshops
3. Share of good practices
4. Support staff externally
5. National Student Survey (NSS)
6. Student retention
7. Research quality
8. Income generation
9. Prestige

10. Internationalisation
11. Enterprise
12. Teaching and Learning
13. International collaborative partners

The second micro case was a male Head of department (HOD) aged 50-60 with pseudo name MM7 whose academic MMs role was defined. The participant held a PhD and studied in 3 HEIs during academic endeavours on a part-time basis. Also, the participant achieved further qualifications and came to work from industry to the current HEI in a permanent position. The participant held various roles in a career trajectory of lectureship, programme leader, subject head, professorship and is currently in a head of department position. To date the participant holds a total of 28 years working experience in HEIs. 20 different themes related to his developmental needs were reported.

Table 22: Micro Case 2 - HOD - MM7- M- 50-59-Y

Micro Case 2
1. Strategy and Planning
2. Managing People and Resources
3. Research
4. Resource and Finance Management
5. Communication
6. National Students Survey (NSS)
7. Annual staff surveys
8. Technological advances
9. Time management
10. University structures
11. Teamwork
12. Contracts
13. Trainings and Support
14. Staff development programmes - PDPR
15. Performance management
16. Expectation management
17. Student positioning
18. Knowledge transfers with industry

19. Teaching and Learning
20. Rules, Regulations & Policies

The third micro case was a male head of department aged 40-49 with pseudo name MM1 whose academic MMs role was not defined. The participant held a PhD and studied in 2 HEIs during academic endeavours on a full-time basis. Also, the participant achieved no further qualifications and came to work from through education to the current HEI in a permanent position. The participant held various roles in a career trajectory of research assistant, lectureship, programme leader, subject head, professorship and is currently in a head of department position. To date the participant holds a total of 23 years' of working experience in HEIs. 13 different themes related to his developmental needs were reported.

Table 23: Micro Case 3- HOD- MM1- M-40-49- N

Micro Case 3
1. Bespoke courses
2. Career progression
3. Confidence building
4. Course information
5. Development courses
6. Mentorship
7. Opportunity seeker
8. Project deliverables
9. Shadowing
10. Stress management
11. Support
12. Teaching and Learning
13. Team work

The fourth micro case was a male subject head aged 50-59 with pseudo name MM6 whose academic MMs role was not defined. The participant held a PhD and studied in 3 HEIs during academic endeavours on a part-time basis. The

participant achieved further qualifications and came to work from industry to his current HEI in a permanent position. Also, the participant held various roles in a career trajectory of lectureship, programme leader, subject head, professorship and is currently in a subject head position. To date the participant holds a total of 28 years working experience in HEIs. 13 different themes related to his developmental needs were reported.

Table 24: Micro Case 4 – SH- MM6 – M-50-59- N

Micro Case 4
1. Mentorship
2. People management
3. Data analysis
4. Reporting/accountability
5. Courses knowledge
6. Student experience
7. Understanding changes in HEIs
8. Vision of future
9. Understand regulations
10. Develop a team
11. Leadership
12. Budget managing
13. Developing communities of practice

The fifth micro case was a male programme leader aged 40-49 with pseudo name MM5 whose academic MMs role was not defined. The participant held a PhD and studied in 2 HEIs during academic endeavours on a part-time basis. Also, the participant achieved further qualifications and came to work from through industry to his current HEI in a permanent position. the participant held various roles in a career trajectory of lectureship, programme leader, and is currently in a programme leader position. To date the participant holds a total of 18 years' working experience in HEIs. 10 different themes related to his developmental needs were reported.

Table 25: Micro Case 5- PL-MM5-M-40-49-N

Micro Case 5
1. Formal support
2. Formal training
3. Information on data
4. Mentoring scheme
5. Collegial form of development
6. Student development & support- using structured approach
7. Appropriate timings - sacrificing own development time
8. Personal development planning (PDP)
9. Customized and appropriate development courses for Academic MMs
10. Suitable event times

The sixth micro case was a male programme leader aged 50-59 with pseudo name MM2 whose academic MMs role was not defined. The participant held a PhD and studied in 4 HEIs during academic endeavours on a part-time basis. Also, the participant achieved further qualifications and came to work from industry to current HEI in a permanent position. The participant held various roles in a career trajectory of lectureship, programme leader and is currently in a programme leader position. To date the participant holds a total of 35 years' working experience in HEIs. 22 different themes related to his developmental needs were reported.

Table 26: Micro Case 6- PL-MM2-M-50-59-N

Micro Case 6
1. Time management
2. Formal training and development
3. Peer knowledge sharing
4. Quality Teaching and Learning
5. Quality & Student feedback
6. Marking & Assessments
7. Best practice
8. Reporting responsibilities
9. Students progression

10. Maintaining standards- quality accredited programmes & professional review
11. Project & Facilities management
12. Information sharing
13. Experience sharing
14. Individuals needs by PDPR
15. Effective training sessions
16. Interaction with other staff
17. Academic misconduct-plagiarism, online tests, ethics
18. Focus Groups and Developing systems
19. Student time completions
20. Consultancy
21. Research bids
22. Mentoring and Coaching

The seventh micro case was a female programme leader aged 50-59 with pseudo name MM3 whose academic MMs role was not defined. The participant was acquiring a PhD and studied in 3 HEIs during academic endeavours on a part-time basis. Also, the participant achieved further qualifications and came to work from through industry to her current HEI in a permanent position. The participant held various roles in a career trajectory of lectureship, programme leader, and is currently in a programme leader position. To date the participant holds a total of 17 years' working experience in HEIs. 16 different themes related to her developmental needs were reported.

Table 27: Micro Case 7- PL -MM3-F-50-59-N

Micro Case 7
1. Mentoring
2. Training
3. Shadowing job role
4. Leadership & Management
5. Further qualifications e.g. PGCert
6. Time management
7. PDPR's

8. People management
9. Self-management
10. Organic/Collegial management
11. Information on processes
12. Support
13. Semesterisation
14. Module assessments
15. HEI Rules and Regulations changes
16. Annual monitoring review

The eighth micro case was a male retired emeritus professor aged over 60 with pseudo name MM8 whose academic MMs role was not applicable as he worked on a contract basis. The participant held a PhD and studied in 2 HEIs during academic endeavours on part-time basis. Also, the participant achieved further qualifications and came to work from through education to the current HEI in a temporary position. The participant held various roles in a career trajectory of lectureship, programme leader, subject head, professorship and is currently in an emeritus position. To date the participant holds the highest number of years in HEIs totalling to 46 years' of working experience. 14 different themes related to his developmental needs were reported.

Table 28: Micro Case 8- EMPROF-MM8-M- over 60 -n/a

Micro Case 8
1. Financial management
2. Staff management
3. Communication
4. Data analysis
5. Disability awareness
6. Ethics
7. Data security
8. Dispute resolution
9. Staffing problems
10. University structures
11. Rules and Regulations

12. Stress management
13. Information assessment
14. Reporting

The ninth micro case was a male programme leader who did not disclose his age and job definition with pseudo name DevProv 1. The participant held a PhD and studied in 9 HEIs during academic endeavours on a full-time basis. Also, the participant achieved further qualifications and came to work from education to the current HEI in a permanent position. The participant currently holds the role of a manager in development provider position. To date the participant holds a total of 24 years' working experience in HEIs. 14 different themes related to his developmental needs were reported.

Table 29: Micro Case 9- PROV-DevProv 1-M

Micro Case 9
1. Interpret policies and decisions
2. Communication
3. More power allocation
4. Balance strategic
5. Balance operations
6. Day to Day role practicality
7. Bespoke Training & Development
8. Structured development modules
9. ILM courses
10. Enhance skills
11. Align perceptions
12. Development programmes for entrants
13. Coaching
14. Teamwork

The tenth micro case was a female head of department aged 50-59 with pseudo name MM13 whose MM role was not defined. The participant did not hold a PhD and studied in 2 HEIs during academic endeavours on a part-time basis. Also, the participant achieved further qualifications and came to work

from education to her current HEI in a permanent position. The participant currently holds the role of a subject head. To date the participant holds a total of 22 years' working experience in HEIs. 11 different themes related to her developmental needs were reported.

Table 30: Micro Case 10- HOD-MM 13 -F-50-59-NO

Micro Case 10
1. Recruitment process
2. Critically review
3. People management
4. Resource management
5. Health and safety
6. Absence management
7. Financial management
8. Budgetary control
9. Stock control
10. Grievances
11. Management or leadership skills

The eleventh micro case was a female dean aged 50-59 with pseudo name MM14 whose academic MMs role was defined. The participant held a PhD and studied in 2 HEIs during academic endeavours on a full-time basis. Also, the participant achieved further qualifications and came to work from education to her current HEI in a permanent position. The participant held various roles in a career trajectory of lectureship, programme leader, subject head, professorship and is currently in the position of dean. To date the participant holds a total of 31 years' working experience in HEIs. 11 different themes related to her developmental needs were reported.

Table 31: Micro Case 11- DEAN-MM 14 -F-50-59-YES

Micro Case 11
1. Management programmes
2. Understanding structures
3. Understanding systems

4. Business operations
5. Leadership development
6. Mentorship
7. Roles support
8. Interpersonal skills
9. People skills
10. Collegiate fashion
11. International global context

The twelfth micro case was a female head of department aged over 60 with pseudo name MM21 whose academic MMs role was defined. The participant held a PhD and studied in 2 HEIs during academic endeavours on a part-time basis. Also, the participant achieved further qualifications and came to work from education to her current HEI in a permanent position. The participant held various roles in a career trajectory of lectureship, programme leader, subject head, and is currently in a head of department position. To date the participant holds a total of 21 years' working experience in HEIs. 24 different themes related to her developmental needs were reported.

Table 32: Micro Case 12- HOD-MM 21-F- over 60 -YES

Micro Case 12
1. Mentorship and guidance
2. Research
3. Work-Life balance
4. Stress in the job
5. HEI support
6. Role model
7. Group network
8. Structures
9. Leadership
10. Role Play
11. Research
12. PDPR
13. Strategic

14. Writing workshops
15. Processes and Policies
16. Communication
17. Collegial
18. NLP
19. Quality Teaching & Research
20. Mentoring & Coaching
21. Continuing Professional Development (CPD)
22. Time Management
23. Support Staff
24. PhD Writing Group

The thirteenth micro case was a female subject head aged 50-59 with pseudo name MM23 whose academic MMs role was not defined. The participant did not hold a PhD and studied in 2 HEIs during academic endeavours on a full-time basis. Also, the participant achieved further qualifications and came to work from industry to her current HEI in a permanent position. The participant held various roles in a career trajectory of lectureship, programme leader, subject head, and is currently in a subject head position. To date the participant holds a total of 21 years' working experience in HEIs 13 different themes related to her developmental needs were reported.

Table 33: Micro Case 13- SH-MM 23 -F-50-59-NO

Micro Case 13
1. Avoiding making mistakes
2. Bureaucratic issue
3. Decision making
4. Managing people
5. PDPR
6. Leadership and Management training
7. Mentorship and Coaching
8. Negotiation skills
9. Sharing experiences
10. Aurora Leadership
11. Role clarification

12. Legal perspective
13. Risk management

The fourteenth micro case was a female programme leader aged 40-49 with pseudo name MM9 whose academic MMs role was not defined. The participant held a PhD and studied in 3 HEIs during academic endeavours on a full-time basis. Also, the participant achieved further qualifications and came to work from industry to her current HEI in a permanent position. The participant held various roles in a career trajectory of research assistant, lectureship, programme leader, and is currently in a programme leader position. To date the participant holds a total of 23 years' working experience in HEIs. 11 different themes related to her developmental needs were reported.

Table 34: Micro Case 14 - PL-MM 9 -F-40-49-NO

Micro Case 14
1. System changes
2. Bureaucratic processes
3. Paperwork
4. Timetabling
5. Role clarification
6. PDPR
7. Time management
8. Validations
9. Accreditations
10. Marketing
11. Dealing with students

The fifteenth was a validation micro case of a female head of department aged 50-59 with pseudo name MM10 VAL whose academic MMs role was not defined. the participant did not hold a PhD and studied in 2 HEIs during academic endeavours on a part-time basis. Also, the participant achieved further qualifications and came to work from industry to her current HEI in a permanent position. The participant held only two roles in a career trajectory

working as a subject head and as a head of department, currently her role is of as a head of department. To date the participant holds a total of 26 years' working experience in HEIs. 11 different themes related to her developmental needs were reported.

Table 35: Micro Case 15- HOD-MM 10 VAL 9-F-50-59-N

Micro Case 15
1. Leadership and Management
2. Tailor made programmes for development needs
3. Time for personal reflection
4. Good practice
5. PDPR effective
6. Direct reporting
7. Rules, Regulation and Policies
8. Student events
9. Knowledge sharing
10. Internationalisation and local
11. Mentoring

The sixteenth was a validation micro case of a male programme leader aged 50-59 with pseudo name MM11 VAL whose academic MMs role was not defined. The participant held a PhD and studied in 3 HEIs during academic endeavours on a full-time basis. Also, the participant achieved further qualifications and came to work from industry to his current HEI in a permanent position. The participant held various roles in a career trajectory of research assistant, lectureship, programme leader, and is currently in a programme leader position. To date the participant holds a total of 31 years' working experience in HEIs. 14 different themes related to his developmental needs were reported.

Table 36: Micro Case 16- PL-MM11 VAL5 -M-50-59-N

Micro Case 16
1. Strategy and Planning (workloads)
2. Mentoring
3. Teamwork (community too)
4. Handling Complexity of role
5. Skills development
6. Technological advances
7. People management
8. HEI Outlook
9. Marketing
10. Curriculum/Programme Design
11. Leadership and Management
12. Role models
13. Decision making
14. Communication

The seventeenth was a validation micro case of a male programme leader aged over 60 with pseudo name MM12 VAL whose academic MMs role was not defined. The participant did not hold a PhD and studied in 2 HEIs during academic endeavours on a full-time basis. Also, the participant achieved no further qualifications and came to work from industry to his current HEI in a permanent position. The participant held various roles in a career trajectory of lectureship, programme leader, and is currently in a programme leader position. To date the participant holds a total of 19 years' working experience in HEIs. 14 different themes related to his developmental needs were reported.

Table 37: Micro Case 17- PL-MM12 VAL6-M- over 60 -N

Micro Case 17
1. Strategy and Planning (workloads)
2. Administration
3. University structures
4. Staff discipline
5. Accountability

6. Quality Teaching and Learning
7. Student events
8. Leadership and Management
9. Time management
10. Skills development
11. Budget
12. Resources management
13 Team work
14. Understanding culture

The eighteenth was a validation micro case of a female assistant dean aged over 60 with pseudo name MM15 VAL whose academic MMs role was not defined. The participant held a PhD and studied in 4 HEIs during academic endeavours on a part-time basis. Also, the participant achieved further qualifications and came to work from industry to her current HEI in a permanent position. The participant held various roles in a career trajectory of lectureship, programme leader, assistant dean, and is currently in an assistant dean position. To date the participant holds a total of 24 years' working experience in HEIs. 14 different themes related to her developmental needs were reported.

Table 38: Micro Case 18- ASST. DEAN-MM 15 VAL 1-F- over 60 -N

Micro Case 18
1. People management
2. Skills development
3. Development programmes
4. Staff attitude
5. Academic skills
6. Role Models
7. Mentoring
8. Coaching
9. University structures
10. Bureaucracy skills (Tick a box attitude)
11. Interpersonal skills

12. Communication skills
13. Self confidence
14. Positive thinking
15. Dealing with emails

The nineteenth was a validation micro case of a male head of department aged over 60 with pseudo name MM16 VAL whose academic MMs role was not defined. The participant held a PhD and studied in 3 HEIs during academic endeavours on a full-time basis. Also, the participant achieved further qualifications and came to work from education to the current HEI in a permanent position. The participant held various roles in a career trajectory of research assistant, lectureship, programme leader, subject head, professorship and is currently in a head of department position. To date the participant holds a total of 36 years' working experience in HEIs. 13 different themes related to his developmental needs were reported.

Table 39: Micro Case 19- HOD-MM 16 VAL 2-M- over 60 -N

Micro Case 19
1. Skills development
2. Leadership and Management
3. Stress management
4. Time management
5. Good citizen
6. Teamwork
7. Promotion
8. University structures-knowledge
9. Academic processes
10. Deadlines
11. Marking
12. Rules, Regulation and Policies (System Governance)
13. Personal attitude

The twentieth was a validation micro case of a female head of department aged over 60 with pseudo name MM17 VAL whose academic MMs role was

defined. The participant held a PhD and studied in 2 HEIs during academic endeavours on a full-time basis. Also, the participant achieved further qualifications and came to work from education to her current HEI in a permanent position. The participant held various roles in a career trajectory of lectureship, programme leader, subject head, professorship and is currently in a head of department position. To date the participant holds a total of 26 years' working experience in HEIs. 13 different themes related to her developmental needs were reported.

Table 40: Micro Case 20- HOD-MM 17 VAL 3-F- over 60 -Y

Micro Case 20
1. Mentoring
2. Teamwork
3. PDPR
4. Strategy and Planning (workloads)
5. Project management
6. Resources management
7. Leadership and Management
8. Bureaucracy skills
9. Budget management
10. Finance management
11. PDPRs
12. Project management
13. Role model- Aurora programme

The twenty-first was a validation micro case of a male subject head aged 40-49 with pseudo name MM18 VAL whose academic MMs role was defined. The participant held a PhD and studied in 2 HEIs during academic endeavours on a full-time basis. Also, the participant achieved further qualifications and came to work from industry to his current HEI in a permanent position. The participant held various roles in a career trajectory of research assistant, lectureship, programme leader, subject head, and is currently in a subject head position. To date the participant holds a total of 26 years' working

experience in HEIs. 8 different themes related to his developmental needs were reported.

Table 41: Micro Case 21-SH-MM 18 VAL 4-M-40-49-Y

Micro Case 21
1. PDPR
2. Professional development
3. Resources management
4. People management
5. Strategy and Planning (workloads)
6. Stress management
7. Work-life balance
8. Finance management

The twenty-second was a validation micro case of a female programme leader aged 30-39 with pseudo name MM19 VAL whose academic MMs role was defined. The participant did hold a PhD and studied in 2 HEIs during academic endeavours on a part-time basis. Also, the participant achieved further qualifications and came to work from education to her current HEI in a permanent position. The participant held various roles in a career trajectory of lectureship, programme leader, and is currently in programme leader position. To date the participant holds a total of 13 years' working experience in HEIs. 9 different themes related to her developmental needs were reported.

Table 42: Micro Case 22-PL-MM 19 VAL7 -F-30-39-Y

Micro Case 22
1. Leadership and Management
2. Mentoring
3. Coaching
4. Informal support
5. Technological advances
6. Quality Teaching and Learning
7. Time management
8. Stress management

9. Networking

The twenty-third was a validation micro case of a female programme leader aged 30-39 with pseudo name MM24 VAL whose academic MMs role was not defined. The participant holds a PhD and studied in 3 HEIs during academic endeavours on a part-time basis. Also, the participant achieved further qualifications and came to work from industry to her current HEI in a permanent position. The participant held various roles in a career trajectory of lectureship and programme leader and is currently in a programme leader position. To date the participant holds a total of 2 years' working experience in HEIs. 10 different themes related to her developmental needs were reported.

Table 43: Micro Case 23- PL-MM 24 VAL10 -F-30-39-N

Micro Case 23
1. Training and development
2. Tailor made programmes for development needs
3. Research Skills & Excellence
4. Leadership and Management
5. University structures-knowledge
6. EFMD (Europeans in Academia)
7. Curriculum/Programme design
8. Communications
9. Role model - Aurora
10. Mentoring

Table 44: Developmental needs of 23 participants during case studies

Developmental Needs 14 main embedded cases	Micro Case 1	Micro Case 2	Micro Case 3
UNIT	DEAN	HOD	HOD
PSEUDONYM	MM4	MM7	MM1
GENDER	M	M	M
AGE	50-59	50-59	40-49
JOB DEFINED	Y	Y	N
MM DEVELOPMENT NEEDS	1 Training	1. Strategy and Planning	1. Bespoke Courses
	2. Workshops	2.Managing People and Resources	2. Career Progression
	3. Share of Good Practices	3. Research	3. Confidence Building
	4. Support Staff Externally	4. Resource and Finance Management	4. Course Information
	5. National Student Survey (NSS)	5. Communication	5. Development Courses
	6. Student Retention	6. National students survey (NSS)	6. Mentorship
	7. Research Quality	7. Annual Staff Surveys	7. Opportunity Seeker
	8. Income Generation	8. Technological Advances	8. Project Deliverables
	9. Prestige	9. Time Management	9. Shadowing
	10. Internationalization	10. University structures	10. Stress Management
	11. Enterprise	11. Teamwork	11. Support
	12. Teaching and Learning	12. Contracts	12. Teaching and learning
	13. International Collaborative Partners	13. Trainings and Support	13. Team Work

		14. Staff development program-PDPR	
		15 Performance Management	
		16. Expectation Management	
		17. Student Positioning	
		18. Knowledge Transfers with Industry	
		19. Teaching and Learning	
		20. Rules, Regulations & Policies	

Developmental Needs 14 main embedded cases	Micro Case 4	Micro Case 5	Micro Case 6
UNIT	SH	PL	PL
PSEUDONYM	MM6	MM5	MM2
GENDER	M	M	M
AGE	50-59	40-49	50-59
JOB DEFINED	N	N	N
MM DEVELOPMENT NEEDS	1. Mentorship	1. Formal support	1. Time Management
	2. People management	2. Formal trainings	2. Formal Training & Development
	3. Data analysis	3. Information on data	3. Peer Knowledge Sharing
	4. Reporting/accountability	4. Mentoring scheme	4. Quality teaching and learning
	5. Courses knowledge	5. Collegial form of development	5. Quality & student feedback
	6. Student experience	6. Student development & support-using structured approach	6. Marking & Assessments

	7. Understanding changes in HEIs	7. Appropriate timings - sacrificing own development time	7. Best practice
	8. Vision of Future	8. Personal development planning (PDP)	8. Reporting responsibilities
	9. Understand regulations	9 Customized and appropriate Development courses for MM	9. Students Progression
	10. Develop a team	10 Suitable event times	10. Maintaining standards- quality accredited programmes & professional review
	11. Leadership		11. Project & Facilities management
	12. Budget managing		12. Information sharing
	13. Developing communities of practice		13. Experience Sharing
			14. Individuals needs by PDPR
			15. Effective training sessions
			16. Interaction with other staff
			17. Academic Misconduct- Plagiarism, online tests, ethics
			18. focus groups and developing systems
			19. Student time completions
			20. Consultancy
			21. Research bids
			22. Mentoring and Coaching

Developmental Needs 14 main embedded cases	Micro Case 7	Micro Case 8	Micro Case 9
UNIT	PL/SL	EMPROF	PROV
PSEUDONYM	MM3	MM8	DevProv 1
GENDER	F	M	M
AGE	40-49	Over 60	TBC
JOB DEFINED	N	n/a	TBC
MM DEVELOPMENT NEEDS	1. Mentoring	1. Financial Management	1. Interpret policies and decisions
	2. Training	2. Staff Management	2. Communication
	3. Shadowing Job Role	3. Communication	3. More Power Allocation
	4. Leadership & Management	4. Data Analysis	4. Balance Strategic
	5. Further Qualifications e.g. PGCert	5. Disability Awareness	5. Balance Operations
	6. Time Management	6. Ethics	6. Day to Day Role Practicality
	7. PDPR's	7. Data Security,	7. Bespoke Training & Development
	8. People management	8. Dispute Resolution	8. Structured Development Modules
	9. Self-Management	9. Staffing Problems	9. ILM Courses
	10. organic/Collegial management	10. University Structures	10. Enhance Skills
	11. Information on Processes	11. Rules and Regulations	11. Align Perceptions
	12. Support	12. Stress Management	12. Development programme for Entrants
	13. Semesterisation	13. Information Assessment	13. Coaching

	14. Module assessments	14. Reporting	14. Teamwork
	15. HEI Rules and Regulations Changes		
	16. Annual monitoring review		

Developmental Needs 14 main embedded cases	Micro Case 10	Micro Case 11	Micro Case 12
UNIT	HOD	DEAN	HOD
PSEUDONYM	MM 13	MM 14	MM 21
GENDER	F	F	F
AGE	50-59	50-59	Over 60
JOB DEFINED	NO	YES	YES
MM DEVELOPMENT NEEDS	1. Recruitment process	1. Management Programmes	1. Mentorship and Guidance
	2. Critically review	2. Understanding Structures	2. Research
	3. People management	3. Understanding Systems	3. Work-Life Balance
	4. Resource management	4. Business Operations	4. Stress in The Job
	5. Health and safety	5. Leadership Development	5. HEI Support
	6. Absence management	6. Mentorship	6. Role Model
	7. Financial management	7. Roles Support	7. Group Network
	8. Budgetary control	8. Interpersonal Skills	8. Structures
	9. Stock control	9. People Skills	9. Leadership
	10. Grievances	10. Collegiate Fashion	10. Role Play

	11. Management or leadership skills	11. International Global Context	11. Research
			12. PDPR
			13. Strategic
			14. Writing Workshops
			15. Processes and Policies
			16. Communication
			17. Collegial
			18. NLP
			19. Quality Teaching, Research,
			20. Mentoring & Coaching
			21. Continuing Professional Development (CPD)
			22. Time Management
			23. Support Staff
			24. PhD Writing Group

Developmental Needs 14 main embedded cases	Micro Case 13	Micro Case 14
UNIT	SH	PL
PSEUDONYM	MM 23	MM 9
GENDER	F	F
AGE	50-59	40-49

JOB DEFINED	NO	NO
MM DEVELOPMENT NEEDS	1. Avoiding Making Mistakes	1. System changes
	2. Bureaucratic Issue	2. Bureaucratic Processes
	3. Decision Making	3. Paperwork
	4. Manage People	4. Timetabling
	5. PDPR	5. Role clarification
	6. Leadership and Management Training	6. PDPR
	7. Mentorship and Coaching	7. Time management
	8. Negotiation Skills	8. Validations
	9. Sharing Experiences	9. Accreditations
	10. Aurora Leadership	10. Marketing
	11. Role Clarification	11. Dealing with students
	12. Legal Perspective	
	13. Risk Management	

Developmental Needs 9 validation embedded cases	Micro Case 15 (1)	Micro Case 16 (2)	Micro Case 17 (3)
UNIT	HOD	PL	PL
PSEUDONYM	MM 10 VAL 9	MM11 VAL5	MM12 VAL6
GENDER	F	M	M
AGE	50-59	50-59	50-59
JOB DEFINED	N	N	N
MM DEVELOPMENT NEEDS	1 Leadership and Management	1. Strategy and Planning (workloads)	1. Strategy and Planning (workloads)
	2. Tailor made programmes for DN	2. Mentoring	2. Administration

	3. Time for personal reflection	3. Teamwork (community too)	3. University Structures
	4. Good Practice	4. Handling Complexity of Role	4. Staff Discipline
	5. PDPR effective	5. Skills development	5. Accountability
	6. Direct reporting	6. Technological Advances	6. Quality teaching and Learning
	7. Rules, Regulation and policies	People management	7. Student events
	8. Student events	8. HEI Outlook	8. Leadership and Management
	9. Knowledge sharing	9. Marketing	9. Time Management
	10. Internationalisation and local	10. Curriculum/Programme Design	10. Skills development
	11. Mentoring	11. Leadership and Management	11. Budget
		12. Role Models	12. Resources Management
		13. Decision Making	13 Team Work
		14. Communication	14. Understanding Culture

	Micro Case 18 (4)	Micro Case 19 (5)	Micro Case 20 (6)
UNIT	ASST. DEAN	HOD	HOD
PSEUDONYM	MM 15 VAL 1	MM 16 VAL 2	MM 17 VAL 3
GENDER	F	M	F
AGE	Over 60	Over 60	Over 60
JOB DEFINED	N	N	Y
MM DEVELOPMENT NEEDS	1. People Management	1. Skills development	1. Mentoring
	2. Skills development	2. Leadership and Management	2. Teamwork
	3. Development Programmes	3. Stress Management	3. PDPR
	4. Staff attitude	4. Time Management	4. Strategy and Planning (workloads)
	5. Academic skills	5. Good citizen	5. Project management
	6. Role Models	6. Teamwork	6. Resources Management
	7. Mentoring	7. Promotion	7. Leadership and Management

	8. Coaching	8. University Structures -Knowledge	8. Bureaucracy skills
	9. University Structures	9. Academic processes	9. Budget management
	10. Bureaucracy skills (Tick a box attitude)	10. Deadlines	10. Finance management
	11. Interpersonal skills	11. Marking	11. PDPRs
	12. Communication skills	12. Rules, Regulation and policies (System Governance)	12. Project management
	13. Self confidence	13. Personal attitude	13. Role model- Aurora programme
	14. Positive thinking		
	15. Deal with emails		

	Micro Case 21 (7)	Micro Case 22 (8)	Micro Case 23 (9)
UNIT	SH	PL	PL
PSEUDONYM	MM 18 VAL 4	MM 19 VAL7	MM 24 VAL10
GENDER	M	F	F
AGE	40-49	30-39	30-39
JOB DEFINED	Y	Y	N
MM DEVELOPMENT NEEDS	1. PDPR	1. Leadership and Management	1. Training and development
	2. Professional Development	2. Mentoring	2. Tailor made programmes for DN
	3. Resources Management	3. Coaching	3. Research Skills & Excellence
	4. People Management	4. Informal Support	4. Leadership and Management
	5. Strategy and Planning (workloads)	5. Technological Advances	5. University Structures -Knowledge
	6. Stress Management	6. Quality teaching and Learning	6. EFMD (European in Academia)
	7. Work-life balance	7. Time Management	7. Curriculum/Programme Design
	8 Finance management	8. Stress Management	8. Communications
		9. Networking	9. Role model - Aurora
			10. Mentoring

Table 45: Career trajectories of 23 participants in the case studies

AGE	GENDER	UNIT	PSEU.	EDU				CAREER PROG.								SERVICE IN HEI
				PHD	ED. INST.	F/P TIME	FUR. QUAL	IND/ EDU	PER/ TEMP	RES ASST	LEC/ S.LEC	PROG LEAD	SUB.L / HD	PROF	DEAN	EXP. YEARS (2018)
50-59	M	DEAN	MM4	Y	1	FT	Y	IND	PER	Y	Y	Y	Y	Y	Y	25
50-59	M	HOD	MM7	Y	3	PT	Y	IND	PER	N	Y	Y	Y	Y	N	28
40-49	M	HOD	MM1	Y	2	FT	N	EDU	PER	Y	Y	Y	Y	Y	N	23
50-59	M	SH	MM6	Y	3	PT	Y	IND	PER	N	Y	Y	Y	Y	N	28
40-49	M	PL	MM5	Y	2	PT	N	IND	PER	N	Y	Y	N	N	N	18
50-59	M	PL	MM2	Y	4	PT	Y	IND	PER	N	Y	Y	N	N	N	35
50-59	F	PL/SL	MM3	N	3	PT	Y	IND	PER	N	Y	Y	N	N	N	17
Over 60	M	EMPROF	MM8	Y	2	PT	Y	EDU	TEMP	N	Y	Y	Y	Y	N	46
TBC	M	PROV	Dev Prov 1	N	9	FT	Y	EDU	PER	N	N	N	N	N	N	24
50-59	F	HOD	MM 13	N	2	PT	Y	EDU	PER	N	N	N	Y	N	N	22
50-59	F	DEAN	MM 14	Y	2	FT	Y	EDU	PER	N	Y	Y	Y	Y	Y	31
Over 60	F	HOD	MM 21	Y	2	PT	Y	EDU	PER	N	Y	Y	Y	N	N	21
50-59	F	SH	MM 23	N	2	FT	Y	IND	PER	N	Y	Y	Y	N	N	21
40-49	F	PL	MM 9	Y	3	FT	Y	IND	PER	Y	Y	Y	N	N	N	23
50-59	F	HOD	MM 10 VAL 9	N	2	PT	Y	EDU	PER	N	N	N	Y	N	N	26
50-59	M	PL	MM11 VAL5	Y	3	FT	Y	IND	PER	Y	Y	Y	N	N	N	31

Over 60	M	PL	MM12 VAL6	N	2	FT	N	IND	PER	N	Y	Y	N	N	N	19
Over 60	F	ASST. DEAN	MM 15 VAL 1	Y	4	PT	Y	IND	PER	N	Y	Y	N	N	Y	24
Over 60	M	HOD	MM 16 VAL 2	Y	3	FT	Y	EDU	PER	Y	Y	Y	Y	Y	N	36
Over 60	F	HOD	MM 17 VAL 3	Y	2	FT	Y	EDU	PER	N	Y	Y	Y	Y	N	26
40-49	M	SH	MM 18 VAL 4	Y	2	FT	Y	IND	PER	Y	Y	Y	Y	N	N	26
20-29	F	PL	MM 19 VAL7	N	2	PT	Y	EDU	PER	N	Y	Y	N	N	N	13
30-39	F	PL	MM 24 VAL10	Y	3	PT	Y	IND	PER	N	Y	Y	N	N	N	2

7.4.2 Meso level – university

At meso level (institutional), the main case comprised of 23 individual embedded units of 3 deans, 7 HOD, 4 Subject heads, 7 Programme leaders, 1 Development provider and 1 Emeritus professor. The demographic data showed results of gender distribution encompassing 12 males and 11 females. The total age of all 23 participants amounted to 1,182 with average of 53.72 years each. However, one participant who was a male did not disclose his age. The 23-participants' total service in all the participating HEIs amounted to 565 years with an average of 24.56 years each. A distinct majority of the participants held a PhD with 16 participants possessed having it while 7 did not. The total educational institutions where the 23 participants studied at amounted to 63 with an average of 2.73 per participant. Whether the participants studied on full time or part time basis during their careers, results showed almost a balance with 11 participants having studied for their higher education degrees on a full-time basis while 12 studied on a part time basis. 20 participants gained further qualifications after their higher education degrees while 3 participants did not. However, the majority of the participants had come from industry to work in HEIs. 10 participants career path was from educational background while 13 participants came from industry in their career trajectory. It was apparent that the majority of the participants were employed on a permanent basis at their current HEI while only 1 participant who was obviously a retired emeritus professor, worked on a contract basis.

Having critically analysed the career trajectories for the entire 23 academic MMs cohort, it was apparent that in a typical scenario, it is expected that the career track of an Academic MMs goes through a typical path of starting career in a research assistant and going all the way to lecturer, programme leader, subject head, head of department, to dean. However, results contradicted this statement and showed that only 6 participants had ever taken on this avenue of holding a research assistant position while the majority comprising 17 participants never took on that position. 19 participants held a position of lectureship while 4 participants did not; 20 participants had programme leader role while 3 participants did not; 14 participants had subject leader role while

9 did not. Interestingly, 8 out of the 23 participants were professors while 15 were not. Lastly 3 of the contingents were deans while 20 were not.

To conduct analysis at the meso level, the 23 micro cases word file was converted to a PDF file and imported into NVIVO 11. The pdf file contained all 23 micro cases with their developmental needs which amounted to a sum of 318(13+20+13+13+10+22+16+14+14+11+11+24+13+17+11+14+14+15+13 +13+8+9+10). A word frequency query was explored selecting the pdf file with most frequently words occurrence through the 318 development needs. The parameters were set to display a cumulative 8 words with minimum word length of 3 characters and grouping with exact matching words. The highest reported theme was 'management' with a count of 50 and lowest 'support' with a count of 10. A word cloud was generated for visual display by encompassing all 8 main categorical themes together with sibling themes related to the main facet. In conclusion, at the meso level the 23 academic MMs cases were analysed and viewed under the institutional level lens between the micro levels, i.e. within a post-1992 organization. The individual 23 academic MMs cases were embedded in the main study of a post-1992 organization. Furthermore, a pyramid visual representation of the case study is discussed in the conclusion in chapter 5.

Under the first category of management 14 different themes were reported as shown below.

1. Management

1. Resource and Finance Management
2. Time Management
3. Performance Management
4. Expectation Management
5. Stress Management
6. People Management
7. Leadership and Management
8. Self-Management
9. Organic/Collegial Management
10. Absence Management
11. Management Programmes
12. Risk Management

13. Project Management
14. Budget Management

Under the second category of development 12 different themes were reported as shown below.

2. Development

1. Staff Development Programmes and Courses
2. Collegial Form of Development
3. Student Development & Support- Using Structured Approach
4. Personal Development Planning (PDPR)
5. Customized and Appropriate Development Courses for Academic MMs
6. Formal Training and Development
7. Bespoke Training and Development
8. Structured Development Modules
9. Development Programme for Entrants
10. Leadership Development
11. Continuing Professional Development (CPD)
12. Skills Development

Under the third category of skills 8 different themes were reported as shown below.

3. Skills

1. Enhance Skills
2. Management or Leadership Skills
3. People Skills
4. Interpersonal Skills
5. Mentorship and Coaching
6. Negotiation Skills
7. Academic Skills
8. Bureaucracy Skills
9. Communication Skills
10. Research Skills and Excellence

Under the fourth category of leadership 3 different themes were reported as shown below.

4. Leadership

1. Leadership
2. Aurora Leadership

3. Leadership and Management

Under the fifth category of role 5 different themes were reported as shown below.

5. Role

1. Shadowing Job Role
2. Day to Day Role Practicality
3. Role Model
4. Role Play
5. Handling Complexity of Role

Under the sixth category of time 4 different themes were reported as shown below.

6. Time

1. Time Management
2. Sacrificing Own Development Time
3. Student Time Completions
4. Time for Personal Reflection

Under the seventh category of mentoring 2 themes complimented each other as reported and shown below.

7. Mentoring

1. Mentoring and Coaching

Under the eighth category of support 7 different themes were reported as shown below.

8. Support

1. Support Staff Externally
2. Training and Support
3. Formal Support
4. Student Development and Support
5. Roles Support
6. HEIs Support
7. Informal Support

7.4.3 Macro level – national

The case studies evaluation in the micro and meso further developed the themes to structure the survey questionnaire for exploration and confirmation. Final changes were made to the questionnaire after a second pilot test consisting of 25 participants. During the macro level the outcomes relied on comparison with internal and external findings i.e. comparing on pilot study questionnaire with a post-1992university and running a survey externally with 141 UK HEIs. 2,035 participants were approached and 166 fully returned the questionnaires. A strategy ensured only fully completed forms were prepared for analysis and incomplete forms were disregarded. The macro level compared the second pilot study questionnaire internally with 25 cases developed from a typical post-1992 university. As for the external survey questionnaire, it comprised of returns from ancient universities, red brick, new universities, Russell group and post-1992 HEIs making a total of 166 cases from 141 UK universities.

Other questions asked in external survey and not in internal pilot study were: **HEIs are becoming more commercial** 81 Academic MMs (48.80%) Mostly agreed and **I am full supported by my line managers** 61 Academic MMs 36.75% Mostly agrees.

The predominant values were analysed the variables recorded encompassing years in current institution, total years HEI experience, industry experience prior to joining HEI and current employment status. Changes to the questionnaire were undertaken from recommendations of the participants. However, only one facet of the questionnaire differed in the questions…**Approximately, how much time do you spend on Human Resource (HR) related activities per week related to your job role?** This was because the question was not asked in the pilot study and was included after recommendation by its participants for external validation.

It was interesting to note the results of the question asked of participants about their perceptions…**Are the Middle Management development programmes provided at your institution effective and supportive?** Results showed that

Academic MMs from external HEIs were satisfied with the development programmes in their institutions with the majority of Academic MMs saying Yes 99 Academic MMs (59.3%) while 67 Academic MMs said No (40.4%). However, this statement was contradictory to Academic MMs in the typical post-1992 university who were dissatisfied, with 16Academic MMs (64%) saying No and 9 Academic MMs saying Yes (36%).

On the following question…**Overall, how would you rank the development programmes at your institution? (Please, select one percentage value graded from 0% being poor to 100% being excellent)**

Almost half of the cohort consisting of 77 Academic MMs (46.4%) from 141 UK universities ranked it between 70%-100% while 9 Academic MMs ranked it 0%. Full results are shown below.

0% **9** (5.4%)
10% **11** (6.6%)
20% **3** (1.8%)
30% **14** (8.4%)
40% **13** (7.8%)
50% **20** (12%)
60% **19** (11.4%)
70% **32** (19.3%)
80% **32** (19.3%)
90% **7** (4.2%)
100% **6** (3.6%)

However, on the same question academic MMs at a typical 'post 1992' university showed their dissatisfaction with 12 academic MMs (48%) ranking it 0-50% and 7 academic MMs (28%) ranking it 51-100% while 6 academic MMs (24) either reported as don't know/not applicable.

The optional questions on Development Programmes in Higher Education Institution (HEIs) showcased interesting results. The question explored on participants' interests, relevance and partaking in the development programmes offered by their respective HEIs. Analysing the question commenced with recording different perspectives on development programme

associated with key performance indicators (KPIs) related to e.g. TEF, REF, League tables, NSS between the two groups. External HEIs reported as 59Academic MMs (35.54%) saying Yes to have participated in such development programmes while 107 Academic MMs (64.46%) saying No. 26 Academic MMs (33.77%) reported such development to be important. However, the typical post-1992 university reported with 2 Academic MMs (8.3%) saying Yes to have participated in such development programmes and 22 Academic MMs (91.7%) saying No. 3 Academic MMs (37.5%) reported such development to be very important.

Analysing the same question with a different perspective on development programmes associated with management of people, external HEIs reported as 82 Academic MMs (49.40%) saying Yes to have participated in such development programmes while 84 Academic MMs (50.60%) saying No. 41Academic MMs (44.09%) reported such development to be very important. However, in the typical post-1992 university 12 Academic MMs (50%) said Yes to have participated in such development programmes while 12 Academic MMs (50%) said No. Also, 5 Academic MMs (31.3%) reported such development to be very important. Analysing the same question with a different perspective on development programmes associated with management of research, external HEIs reported as 56 Academic MMs (33.73%) saying Yes to have participated in such development programmes while 110 Academic MMs (66.27%) saying No. 29 Academic MMs (33.33%) reported such development to be very important. However, in the typical post-1992 university 7 Academic MMs (29.2%) said Yes to have participated in such development programmes while 17 Academic MMs (70.8%) said No. 4Academic MMs (30.8%) reported such development to be very important.

Analysing the same question with a different perspective on development programmes associated and linked to student issues e.g. student experiences, performance related, personal issues, external HEIs reported as 66 Academic MMs (39.76%) saying Yes to have participated in such development programmes while 100 Academic MMs (60.24%) saying No. 29 Academic MMs (33.33%) reported such development to be very important. However, the

typical post-1992 university 11 Academic MMs (45.8%) said Yes to have participated in such development programmes while 13 Academic MMs (54.2%) said No. 6 Academic MMs (40%) reported such development to be very important.

Analysing the same question with a different perspective on development programmes associated with self-assessment, skills building, and progression related such as career development, external HEIs reported as 66 Academic MMs (39.76%) saying Yes to have participated in such development programmes while 100 Academic MMs (60.2%) saying No. 31 Academic MMs (36.9%) reported such development to be important. However, the typical 'post 1992' university 7 Academic MMs (29.2%) said Yes to have participated in such development programmes while 17 Academic MMs (70.8%) said No. Besides, 5 Academic MMs (38.5%) reported such development to be important.

A table showing further results using the case cross comparisons between the cases can be found from (appendix 37- 40). The legend depicts the three levels of development needs of Academic MMs, with red showing the most crucial, yellow showing neutral and green showing no issues. The demographics data is also displayed between the main groups i.e. post-1992 versus ancient universities, red brick, new universities and, Russell group and post-1992, and, subsequently the types of roles namely, Principal/Senior Lecturer, Subject Head/Leader, Head of Dept. /School Director and Deans.

In summary, the case studies insights showcased academic MMs developmental needs at the afore mentioned levels of micro-meso-macro. The case studies results set a strong platform and provided basics for the survey external to the post-1992 university. The key areas and visual representation of academic MMs attitude and of development requirements can be found in conclusion chapter.

7.5 Qualitative Stage - Grounded theory

Grounded theory data analysis was the prime approach to analyse the semi-structured interviews data which were recorded in verbatim format. the coding was structured in a systematic manner by coding the data openly in the first instance in which all the interview protocols were analysed using grounded theory of line_by_line investigation. The second stage involved axial coding by grouping relevant themes under emergent topics. The final stage took into consideration and devised actual categorical codes via selective coding. Depending on the sense and content of the nodes, linking of data themes occurred which produced 264 individual nodes while 3 additional captured nodes were feedback nodes for the researcher's feedback on interview contents and overall feedback from all participants (appendix 12-13). A matrix coding was developed with participants against the 264 nodes structure with binary values of 1 and 0. The value 1 represented a node presence against participant while value 0 represented an absence against participant. This final coding process was applied to all 14 rich cases and interview transcripts. Nodes were coded using this recurring technique and constantly comparing the content and analysing the words and phrases until exhaustion of all data occurred using the technique of data reduction via the ladder of analytical abstraction (Miles and Huberman, 1994). The 264 case nodes were further classified into the relevant 6 main categories (education, student issues, career trajectories, and HEI changes, challenges of HEI and staff experiences, skills and attributes). Writing of reflective commentaries and memos for each individual case transpired prior to grouping nodes into the 6 main categories.

The participants whose data was analysed using grounded theory included 8 males and 6 females of which 6 were professors. The highest age group of participants was 51-55 occurring five times while the lowest was a tie between (60-65) and (66-70) occurring once. All 14 interviewees job terms were permanent in nature. The participants included 8 males and 6 females of which 6 were professors. 8 participants suggested that their job role was not defined while 4 stated it was and, 2 did not state. The total nodes coded for all participants equated to 1,437 while references coded amounted to 24,834. However, to check on the research overall relevance and in complete totality, questions seeking on significance of research, interviewing and research

advisory were recorded at the end of the semi-structured interview. 12 student feedback responses were recorded with a mean of 8.04 out of 10 totalling 14 interviews. However, 2 interviewees did not respond. This verified the research content was internally appropriate, reliable, and valid. Detailed table is shown below.

Table 46: 14 participants demographics and researcher's feedback

Cases – Participants main role	Age group	Gender	Job Defined	Nodes	References coded	Researcher Feedback
MM 13 - Head of Department (HOD)	50-59	F	no	120	1,401	9 / 10
MM 14 - Dean - Prof.	50-59	F	yes	117	1,259	9 /10
MM 2 - Principal Lecturer/Programme Leader	50-59	M	no	101	2,671	7 / 10
MM 21 - Head of Department (HOD)	Over 60	F	yes	143	2,021	8 / 10
MM 22 - Development Provider - Pilot	-	M	-	46	333	-
MM 23 - Subject Head/Leader	50-59	F	no	162	1,859	8.5 / 10
MM 3 - Principal Lecturer/Programme Leader	40-49	F	no	88	2,387	9 / 10
MM 4 - Dean - Prof.	50-59	M	yes	91	2,242	8 / 10
MM 5 - Principal Lecturer/Programme Leader	40-49	M	no	90	1,599	8 / 10
MM 6 - Subject Head/Leader - Prof.	50-59	M	no	113	1,625	6 / 10
MM 7 - Head of Department (HOD) - Prof.	50-59	M	yes	90	2,566	-
MM 8 - Emeritus Prof. - Pilot	Over 60	M	-	67	1,112	8 / 10
MM 9 - Principal Lecturer/Programme Leader	40-49	F	no	137	1,796	8 / 10
MM 1 - Head of Department (HOD) - Prof.	40-49	M	no	72	1,963	8 / 10
		8M-6F	**(Y=4) (N=8)**	**1,437**	**24,834**	Mean **8.04**

One thought-provoking finding from the results obtained from the analysis of the qualitative stage demonstrated that 10 out of 14 participants held a PhD, while 1 female participant was currently undertakings hers. This meant that generally for academic MMs in HEIs the highest qualification was a PhD. From the changes perspective reported by participants in the qualitative stage, all 14 participants suggested that they faced key performance Indicators (KPIs) which heavily influenced them in their job role. Namely such elements included; Research Excellence Framework (REF), League Tables, Teaching Excellence Framework (TEF), National Student Survey (NSS), government bodies, policies, rules and regulations. Significant issues faced by 12 participants included internal policy, rules and regulations, working conditions and terms and hours. Whereas, 10 participants reported that working

environment and government issues overall put more pressure on them. Consequently, the participants needed more staff support and autonomous power in dealing with university issues. These participants called for more engagement from the HEI to enhance their experiences. In contrast, 9 participants mentioned that league tables influenced their job role and that strategic planning and setting objectives was imperative in the HEIs setting. A major peculiarity felt by 7 participants was the necessity of keeping up with the dynamic technology advances especially with new software or equipment. Lastly, 6 participants stated that much development was required in curriculum design and complained of receiving countless emails which they found to be a challenge to cope up with from time to time.

All 14 participants spoke of their career trajectories including their job titles, roles and career development which in general, highly impacted on their career development. Similarly, another vital finding was all 14 participants confirmed that understanding the university structures and systems was a key feature in HEIs and, also, good leadership and management skills were required for their job role. Fundamental issues faced by 13 participants emphasized the accountability and reporting aspects, and student issues while 12 participants stressed the importance of quality projects, research, teaching, learning and more support in budgets and financial related activities. The most stimulating finding was that two quintessential issues with 11 participants were balancing workloads and work-life. Furthermore, bureaucracy, paperwork and administration were rising by the day for their roles. Time management was the other challenge they faced. 10 participants mentioned that modules design, delivery, marking and assessments was a major facet to their workloads and that collegiality between staff was decreasing in general. 9 participants defined their job role to be highly responsible with heavy meetings that required definitive performance. On the question of publishing research, attending conferences and seminars, this study discovered that these challenges affected 8 participants out of 14. International programmes and outlook were a crucial element for the creation of programmes that were to be validated, evaluated, and delivered. Hence, this challenge called for fundamental decision-making processes. 6 participants reported high job

satisfaction and enhanced their problem-solving skills especially during exam boards and dealing with external examiners. The most discernible finding to emerge from the analysis was that, 14 participants all remarked on quality teaching, research and learning in which they had good support and guidance from the institute showing that this particular HEIs supported their staff. Additionally, gaining and making sense of information was crucial on internal matters of their job roles in relation to course entities, accreditations and assignments which could be harvested through effective development courses and workshops. Furthermore, 13 participants pronounced the importance of mentorship, coaching and training. Typically, 9 participants expounded on the value of teamwork in HEIs. Generally, to create value in the academic MMs role, 9 participants touched on the prominence of stress management, good communication, people management, and development via internal and external engagement. 8 participants demonstrated the significance of gaining feedback in their role. 9 participants referred to seeking opportunities and knowledge during their career progression which motivated, gave them confidence and brought a lot of loyalty in the job role. Also, the same group supposed that their knowledge had probably grown from interaction with other staff and senior staff who acted as their role models, which is highly crucial for the role. Lastly, in the challenges section, 6 participants revealed how imperative was coaching and understanding the university culture to enhance their performance and practice. On the part of development, 11 participants said they raised development matters via the Personal Development and Performance Review (PDPR) processes to the structures of rules, procedures and regulations. 10 participants spoke of how necessary strategizing and planning was paramount in the job role in preparing programme development schedules. 9 participants once more spoke of the certainty of communication in relation to development for success especially in the job role and international recruitment. 8 participants emphasized that change management and processes impacted their job roles and were glad about the institution staff development team who provided support. However, 7 participants recommended that more could be done in development in finance, staffing problems, information provision in induction and recruitment selection. 6 participants highlighted on the significance of gender, discrimination, diversity,

and equality. It is encouraging to perceive that in all fourteen individual cases of this study, student numbers affected the academic MMs relating to issues based on student satisfaction, experiences, and expectations. 11 participants highlighted the necessity of dealing with student behaviour, character, and ability while 10 participants emphasized on student perception and voice. 8 participants expanded on aspects of student attendance, monitoring, examinations, and results. In this respect, student requirements, admissions and programmes were another set of student issue faced by the academic MMs. The pragmatic data from the qualitative stage was advanced and appropriately substantiated with the Miles and Huberman, (1994) approach to grounded theory. The productive model was derived from the rich interview data which as mentioned, produced 264 themes by using the inductive approach in where the research question is answered from the observing the empirical data, pattern matching, generating hypothesis and finally theory building, (by occurring and recurring analysis; related and interrelated mapping; single and multi-dichotomous correlated themes). Detailed nodes structure was principally categorized under 6 main core premises followed in this section. All the themes generated through the grounded theory method of coding were developed via NVIVO and reflected in (appendix 12-14). Following is one of the conceptual models for academic MMs developmental requirements using GS theory approach.

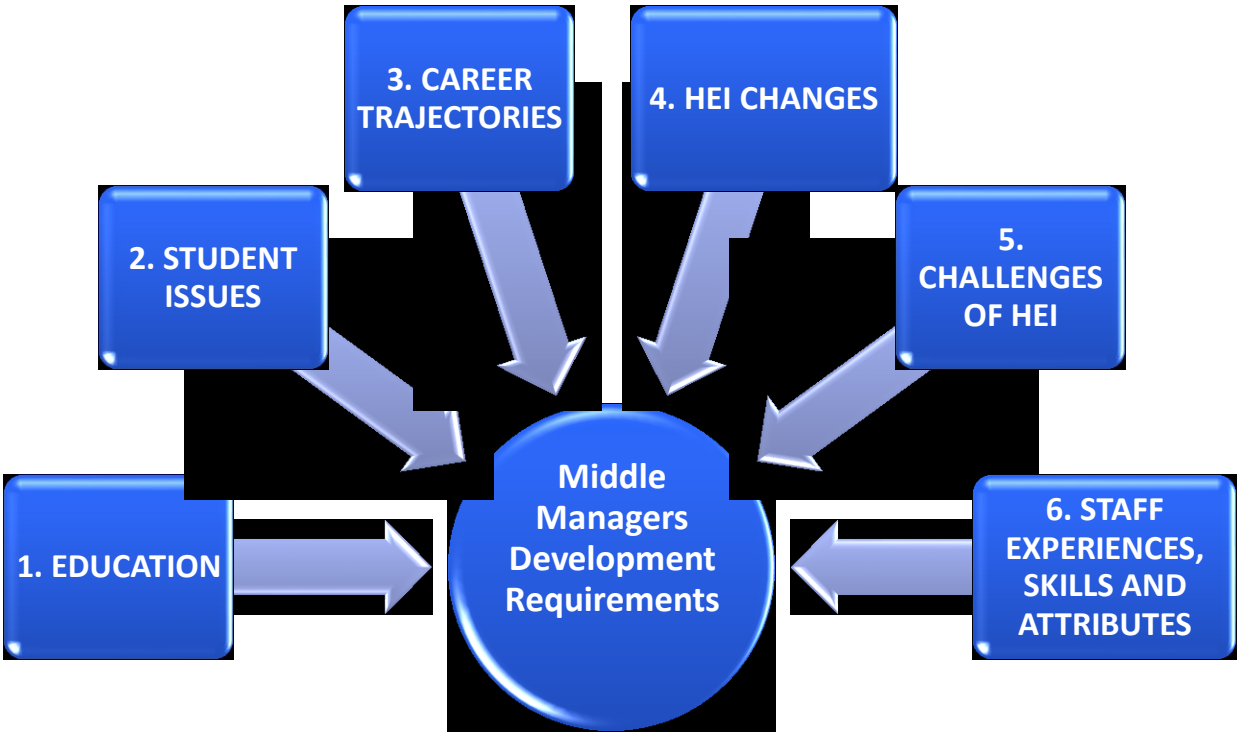

Figure 27: Partial conceptual model for academic MMs developmental requirements using GS theory approach

7.6 Quantitative Stage - Survey Questionnaire

Factor analysis was also conducted on the data from Survey Questionnaire. The following themes were named from the results using Principal Axis Factoring and extraction method.

7.6.1 Time management and coherence - Factor 1

The first factor consisted of 4 themes namely; *Staff collegiality is decreasing, working terms and hours are fair, I am able to manage my time effectively, and, our organisation supports the staff.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Time management and coherence.

Table 47: Factor 1 Time management and coherence extracted from 4 themes.

Factor 1 – Time management and coherence

Staff collegiality is decreasing	.516
Working terms and hours are fair	.511
I am able to manage my time effectively	.378
Our organisation support the staff	.342

7.6.2 Key Performance Indicators (KPI) - Factor 2

The second factor consisted of 3 themes namely; *National Student Survey (NSS), Teaching Excellence Framework (TEF) and League Tables*. Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Key Performance Indicators (KPI).

Table 48: Factor 2 KPIs extracted from 3 themes.

Factor 2 - KPIs

National Student Survey (NSS)	.879
Teaching Excellence Framework (TEF)	.846
League Tables	.437

7.6.3 Teaching, learning and student issues - Factor 3

The third factor consisted of 7 themes namely; *Student requirements, admissions and programmes are very well maintained; Our students have great experiences – e.g. support, progression, engagement, attendance and monitoring, examinations, results, welfare, classes and facilities; Our student retention rates are good; Our institution facilitates high calibre student teaching and learning; I am happy with staff to student ratios; Dealing with external examiners is challenging and I am very supported in marking and assessments.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Teaching, learning and student issues.

Table 49: Factor 3 Teaching, learning and student issues extracted from 7 themes.

Factor 3 – Teaching, learning and student issues

Student requirements, admissions & programmes are very well maintained	-.884
Our student have great experiences – e.g. support, progression, engagement, attendance and monitoring, examinations, results, welfare, classes and facilities	-.864
Our student retention rates are good	-.714

Our institution facilitates high calibre student teaching and learning	-.689
I am happy with staff to student ratios	-.597
Dealing with external examiners is challenging	-.362
I am very supported in marking and assessments	-.347

7.6.4 Responsibility - Factor 4

The fourth factor consisted of 2 themes namely; *University outlook and image is important for student recruitment and Responsibility is a key element in my job role.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Responsibility.

Table 50: Factor 4 Responsibility extracted from 2 themes.

Factor 4 - Responsibility

University outlook and image is important for student recruitment	-.596
Responsibility is a key element in my job role	-.405

7.6.5 Staff severances - Factor 5

The fifth factor consisted of 2 themes namely; *Staff redundancies have an impact on my job role and I feel I get rewarded and promoted by the university fairly.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Staff severances.

Table 51: Factor 5 Staff severances extracted from 2 themes.

Factor 5 - Staff severances

Staff redundancies have an impact on my job role	.585
I feel I get rewarded and promoted by university fairly	.317

7.6.6 Skills building - Factor 6

The sixth factor consisted of 3 themes namely*; I have the necessary problem-solving skills, I am good at dealing with financial aspects of my role and Department restructuring highly affects me.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Skills building.

Table 52: Factor 6 Skills building extracted from 3 themes.

Factor 6 – Skills building

I have the necessary problem-solving skills	.635
I am good at dealing with financial aspects of my role	.322
Department restructuring highly affects me	.305

7.6.7 External influences - Factor 7

The sixth factor consisted of 4 themes namely; *League Tables, Government Bodies, External Policies, Rules and Regulations and Strategic/operational planning is crucial.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named External influences.

Table 53: Factor 7 External influences extracted from 4 themes.

Factor 7 – External influences

League Tables	.422
Government Bodies	.913
External Policies, Rules and Regulations	.753
Strategic/operational planning is crucial	-.529

7.6.8 Internal and external bureaucracy - Factor 8

The eighth factor consisted of 3 themes namely; *International programmes are complex and difficult to deliver, My university is full of bureaucratic processes and I am fully supported by my university in collaborating with industry.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named internal and external bureaucracy.

Table 54: Factor 8 Internal and external bureaucracy extracted from 3 themes.

Factor 8 – Internal and external bureaucracy

International programmes are complex and difficult to deliver	.579
My university is full of bureaucratic processes	.410
I am fully supported by my university in collaborating with industry	.339

7.6.9 Job role pressures - Factor 9

The ninth factor consisted of 2 themes namely*; I am able to balance publishing research, attending conferences and seminars with my main job role and Research Excellence Framework (REF).* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Job role pressures.

Table 55: Factor 9 Job role pressures extracted from 2 themes.

Factor 9 – Job role pressures

I am able to balance publishing research, attending conferences and seminars with my main job role	.604
Research Excellence Framework (REF)	-.548

7.6.10 Communication and job satisfaction - Factor 10

The tenth factor consisted of 4 themes namely; *I am happy with the number of meetings I attend, Overall, I am happy with the changes in HEIs, Communication is getting better and My job is satisfying*. Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Communication and job satisfaction.

Table 56: Factor 10 Communication and job satisfaction extracted from 4 themes.

Factor 10 – Communication and job satisfaction

I am happy with the number of meetings I attend	-.630
Overall, I am happy with the changes in HEIs	-.566
Communication is getting better	-.308
My job is satisfying	-.305

7.6.11 Policies, rules and regulations - Factor 11

The eleventh factor consisted of 3 themes namely; *Student complaints are decreasing, Staff discipline is an important part of the role and Internal policies, rules and regulations don't affect me.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Policies, rules and regulations.

Table 57: Factor 11 Policies, rules and regulations extracted from 3 themes.

Factor 11 - Policies, rules and regulations

Student complaints are decreasing	.376
Staff discipline is important part of the role	.368
Internal policies, rules and regulations don't affect me	-.319

7.6.12 Decision making and deliverables - Factor 12

The twelfth factor consisted of 4 themes namely; *Responsibility is a key element in my job role, We deliver quality projects, research, teaching and learning at our institution, My university has a good academic framework and I am involved with decision making processes.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Decision-making and deliverables.

Table 58: Factor 12 Decision-making and deliverables extracted from 4 themes.

Factor 12 – Decision making and deliverables

Responsibility is a key element in my job role	-.308
We deliver quality projects, research, teaching and learning at our institution	-.777
My university has a good academic framework	-.705
I am involved with decision making processes	-.397

7.6.13 Programmes development and technology - Factor 13

The thirteenth factor consisted of 3 themes namely; *It's tough to keep pace with technology advances, Programme/Curriculum design is simple and Overall, it is simple dealing with student issues.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Programmes development and technology.

Table 59: Factor 13 Programmes development and technology extracted from 3 themes.

Factor 13 - Programmes development and technology

It's tough to keep pace with technology advances	.587
Programme/Curriculum design is simple	.478
Overall, it is simple dealing with student issues	.306

7.6.14 University structures - Factor 14

The fourteenth factor consisted of 3 themes namely; *I fully understand the university structures and systems, it's simple to deal with the academic registry and senior management team and I know our university vision and mission.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named University structures.

Table 60: Factor 14 University structures extracted from 3 themes.

Factor 14 - University structures

I fully understand the university structures and systems		.731
It's simple to deal with the academic registry and senior management team		.620
I know our university vision and mission		.576

7.6.15 Leadership and Management skills, staff support, and rewards - Factor 15

The fifteenth factor consisted of 7 themes namely; *I am fully supported by my university in collaborating with industry; Our university supports Leadership*

and Management skills development; Are the Middle Management development programmes provided at your institution effective and supportive; Our organisation supports the staff; There is high accountability and reporting; I am full supported by my line managers and I feel I get rewarded and promoted by the university fairly. Based on the essence of the data factorized and in pattern matrix, the categorical theme was named Leadership and Management skills, staff support, and rewards.

Table 61: Factor 15 L&M skills, staff support, and rewards from 7 themes.

Factor 15 - Leadership and management skills, staff support and rewards

I am fully supported by my university in collaborating with industry	.300
Our university supports Leadership and Management skills development	.699
Are the Middle Management development programmes provided at your institution effective and supportive?	.626
Our organisation supports the staff	.371
There is high accountability and reporting	.368
I am fully supported by my line managers	.360
I feel I get rewarded and promoted by the university fairly	.356

7.6.16 HEIs changing, accountability and reporting - Factor 16

The sixteenth factor consisted of 3 themes namely; *There is high accountability and reporting, HEIs are becoming more commercial and Department restructuring highly affects me.* Based on the essence of the data factorized and in pattern matrix, the categorical theme was named HEIs changing, accountability and reporting.

Table 62: Factor 16 HEIs changing, accountability and reporting extracted from 3 themes.

Factor 16 – HEIs changing, accountability and reporting

There is high accountability and reporting	-.319
HEIs are becoming more commercial	.710
Department restructuring highly affects me	.392

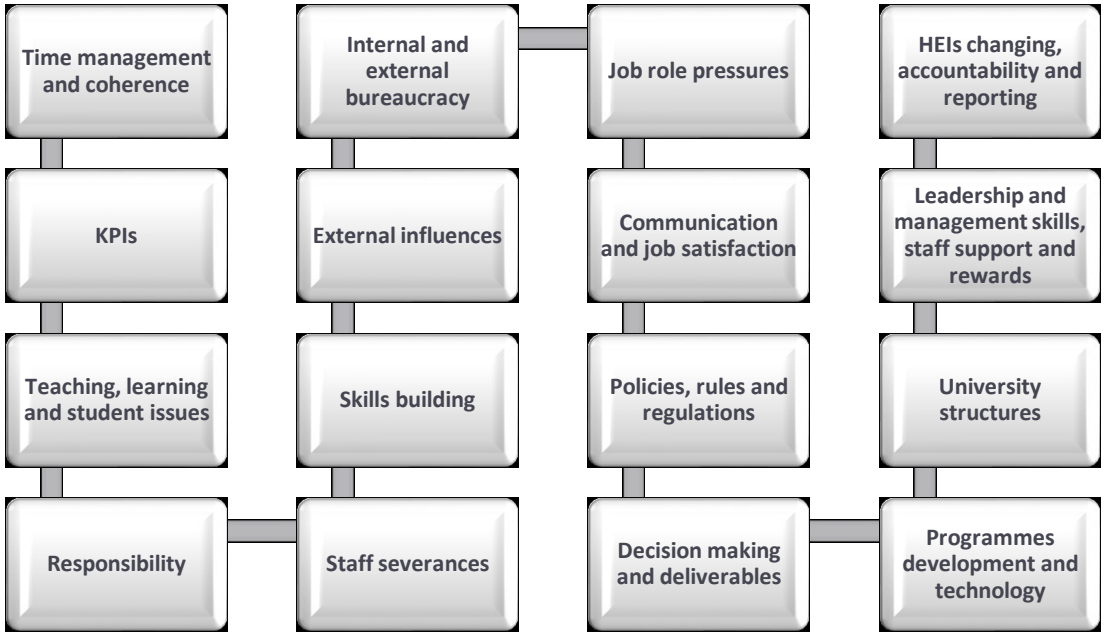

Figure 28: Factors for MM developmental requirements - extraction using principal axis factoring method with oblimin rotation and Kaiser Normalization

7.7 Models Statement

(Appendix 44) reveals all the themes emergent from all the varied models during the study. Furthermore, it shows the developmental areas for academic MMs as seen from literature review and the different methods applied in the study including semi-structured interviews, grounded theory, case studies, survey questionnaire and factor analysis. However, an inquisitive enquiry was launched to establish key categories based upon all the methods adopted. To advance the final conceptual model of the developmental needs of academic MMs the themes in the methods required to be converged. Hence, this was done in NVIVO and table in appendix 44 was imported into the software application minus the themes emerging from the literature review, deleted to authenticate the research findings.

A word frequency was sought to explore the themes to display 10 words that were most frequent in the data from all different emerged models. Using a grouping criterion consisting of synonyms words with three characters were chosen. Ten fundamental words emerged from the data and convergent themes from all study methods is disclosed. Additionally, the table below shows the emerged 10 words with their weighted percentages and similar

words using synonyms grouping in NVIVO. These are categories in which MM developmental provisions lie and are required by HR to be adopted at respective HEIs. However, themes related to all methods are discussed in appendix 44 consisting of themes for MM developmental needs from the complete study. The first area of MM development lies in the facet of management and first area where support is demanded by academic MMs. Secondly, rules and regulations both internally and externally to HEIs. Thirdly, skills development in dimensions such as personal, business, people, performance and organisational skills, Fourthly, from pressures both external and internal, local and international levels from KPIs such as league tables, NSS etc. Fifthly, Accountability and reporting, again both internally and externally. Sixthly, issues faced by staff in the respective HEIs e.g. issues coming from students, teaching, research, learning, HEIs, etc. Seventhly, understanding, actioning and delivering in the complex structures of HEIs. Eighthly, issues for staff and HEIs arising from student experiences. Ninthly, learning which affects the stakeholders of HEIs and which can be divided into teaching, learning, researching based on KPIs. And lastly, development in the sense to all stakeholders, e.g. through proper courses for, staff, students and HEIs availing such developmental opportunities.

Table 63: Top 10 convergent themes from all study methods

Word	**Length**	**Count**	**Weighted (%)**	**Similar Words**
management	10	7	3.54	coaching, management
regulations	11	7	3.28	influences, regulations, rules
skills	6	6	3.03	skills
external	8	5	2.53	external, internal, international
accountability	14	6	2.27	accountability, reporting
staff	5	4	2.02	staff
structured	10	4	2.02	structured, structures
student	7	4	2.02	student
learning	8	6	1.85	learning, studies, teaching
development	11	4	1.77	development, education

7.8 Summary of Chapter 7

Chapter 7 recognized an all-inclusive amplification of models development via the mixed methodology approach of qualitative and quantitative choices. Themes emergent from the choices were applied in detail using the various techniques and procedures namely; literature review, semi-structured interviews, case studies (micro, meso and macro levels), grounded theory and survey. Literature review showcased the first model with 9 core themes. Semi-structured interviews model development displayed 15 core themes, whilst case studies revealed 8 core model themes contributed by three levels of investigation of Micro cases (individual embedded cases), Meso level (university) and Macro level (national). The intense Grounded theory method revealed 6 model core themes. Conducting univariate analysis on the survey questionnaire bestowed 9 model core themes. Applying Factor Analysis to survey questions imparted 17 different model core themes. Finally, the model statement combined all these results to confer the concluding MM developmental model from models. Also, using a qualitative approach to summarise key themes from all the methods in this research. The findings were investigated in NVIVO using key terms from the qualitative and quantitative findings. The results showed 10 key coded themes analysed in qualitative way (appendix 43).

CHAPTER 8. DISCUSSION OF RESULTS AND CONCLUSION

8.1 Chapter 8 overview

The concluding chapter for the study introduces and provides a synopsis of the chapters in the research project. Also, the chapter reveals the accomplishments of the aim and objectives of the project. Equally, the main research findings, implications and deliverables to the area of Academic MMs development. Implications for the contribution to theory, practice and research is discussed with implications for originality. Furthermore, reflection and research limitations are elaborated upon with the beneficiaries of this research. Lastly, future recommendations are made.

8.2 Introduction

Chapter 1 introduced the topic under consideration. Key aspects of the research were outlined by establishing the research rationale, questions, aims and objectives. Also, chapter 1 drew on the environment of HEIs changes and challenges and how it impacts on the role of academic MMs.

Chapter 2 drew on the literature review conducted in the context of the changing environment of HEIs in the UK. Academic MMs position on development was elaborated in HEIs. The main research findings during the in-depth analysis of the Literature study and identification of the key themes were discussed in the same chapter via a theoretical framework deliberated with key authors and core themes for exploration.

Chapter 3 described the overall Research Methodology in detail and features for the research framework/plan and its execution. It encompassed the various elements of the research including; philosophy, approach, strategies, choices, time-period, techniques and procedures.

Chapter 4 reported phase 1 of the project embracing pilot studies carried out in conjunction with literature review findings to verbalize semi-structured interview questions targeted for academic MMs in a post-1992university.

Chapter 5 reported phase 2 qualitative part of the research. Furthermore, the chapter discloses the rationale and strategies adopted, the sampling, data collection and analysis of semi-structured interviews conducted, grounded theory, case studies are shown. Therefore, succeeding in the development of a conceptual models at these different junctures. Following, testing of the models contents via pilot studies prior to validating in quantitative phase 3 was implemented.

Chapter 6 reported phase 3 of the research by carrying out a survey via an advanced questionnaire. The rationale, strategy, sampling, data collection and data analysis of the survey questionnaire were shown in detail. The level of measurements applied on the types of variables in the questionnaire and types of statistical analysis tests conducted were enumerated and featured.

Chapter 7 established a comprehensive interpretation of model development via a mixed methodology approach. Themes emergent from the qualitative stage are described in detail using the various techniques and procedures namely: semi-structured interviews, case studies (micro, meso and macro levels), grounded theory and survey. The chapter concludes with a model statement.

Chapter 8, the results and conclusion chapter of the study revealed achievement of the aim and objectives, main research findings, implications and deliverables to the area of academic MMs development, implications and contribution to theory, practice and research, implications for originality, reflection and research limitations beneficiaries and future recommendations.

8.3 Aim and Objectives

This study set out to determine the developmental needs of academic MMs working in the existing environment of HEIs. In this investigation, the ultimate research aim was to create conceptual models for developmental needs of academic MMs in HEIs based on evidential assessment. The models are to be adopted by UK HEIs to develop their academic MMs in meeting emergent demands of the sector. Also, to identify the key factors requiring

developmental needs for academic MMs. Furthermore, the models are to be embraced by UK HEIs to develop their academic MMs in meeting the emergent demands of the sector. To achieve the above aim the following objectives were derived by the researcher and have been accomplished during the internal and external stages as shown in the table below.

Table 64: Research objectives and its achievements.

Objectives	**Attainment**	**Chapter**
1. To create a theoretical framework based on findings from literature review and two pilot studies and devise a list of questions for data collection by semi-structured interviews (Kvale and Brinkman, 2009).	Literature review and Theoretical framework Qualitative collection and analysis - Pilot Study and Qualitative collection and analysis -semi-structured interviews	Chapter 2 Chapter 3 Chapter 4 Chapter 7
2. To carry out qualitative data collection and analysis using the semi-structured interviews of academic staff (including Deans, Head of Dept. /School Director, Subject Heads and Principal/Senior Lecturers) at a post-1992 UK university. And to evaluate the collected data using grounded theory (Miles and Huberman, 1994)	Qualitative data collection and analysis semi-structured interviews and Grounded theory	Chapter 3 Chapter 4 Chapter 5 Chapter 7
3. To transcribe and examine 14 out of 23 interviews in rich detail (verbatim format) and analyse and compare as case studies using macro, meso and micro cases (Yin, 1994), while the remainder 9 interviews to be audio verified and to validate the findings of qualitative part of the research.	Qualitative data collection and analysis – Case studies	Chapter 3 Chapter 4 Chapter 5 Chapter 7
4. To synthesis and establish a survey instrument derived from the	Quantitative data collection and analysis	Chapter 3 Chapter 6

qualitative findings. To initially pilot test (Bryman, 2012) the survey questionnaire with 15 academic MMs and analyse 11 feedback forms and updating the changes. To conduct a second pilot study with 25 academic MMs and analyse 16 feedback forms.	– Survey Pilot Studies and Survey questionnaire	Chapter 7
5. To make relevant changes and formulate the final survey questionnaire (Oppenheim, 1992). To disseminate the concluding survey questionnaire externally to 2,035 participants working at 141 UK HEIs. To evaluate, analyse and test quantitative data in SPSS (Fields, 2009).	Quantitative data collection and analysis – Survey Pilot Studies and Survey Questionnaire external validation	Chapter 3 Chapter 6 Chapter 7
6. To critique and contribute to HEI environment by developing conceptual models for impartial implementation by HR departments in HEIs so as to develop academic MMs using various methods and techniques.	Complete study	Chapter 1 Chapter 2 Chapter 3 Chapter 4 Chapter 5 Chapter 6 Chapter 7 Chapter 8

8.4 Main research findings

The main findings in both qualitative and quantitative methods are found below starting with semi-structured interviews which produced 15 key themes. Following are case studies, grounded theory and survey.

8.5 Semi-structured interviews

During the semi-structured interviews, to make sense of the initial data a thematic analysis approach was conducted for all the 23 interviews (14 rich case and 9 validation). The themes that emerged from semi-structured interviews were compared to the findings of the literature review and matched

accordingly. Furthermore, the findings from both the platform of literature review and semi-structured interviews are corroborated in the themes below. As an example, Trowler, Ashwin, & Saunders, (2014) studies substantiated that current changes and challenges experienced by academic MMs working in HEIs compounded issues such managerialism and workloads. Similarly, this study found these aspects present in results from the mixed methodology. Likewise, comparisons of the study results were compared, matched and interlinked with literature review and reported in the themes below. As presented below, the themes for semi-structured interviews equalled to 15 key themes namely: University structures, Leadership and Management, Staff Support, Skills development and communication, Courses, External Outlook and engagement, Rules, Regulations & Policies, Mentorship and coaching, Student experiences, Role Model and Shadowing, PDPR, Team Work, Teaching Learning and Research-assessments, Accountability, Reporting, responsibilities and Technological Advances. Taken together, the findings support strong recommendations to the following issues as headings.

8.5.1 University structures

Firstly, one of the more significant findings to emerge during the semi-structured interviews and case studies findings was the academic MMs understanding of the University structures. This was in line with the findings of Kubler and Sayers, (2010) in which the author mentions modern structures of HEIs which are directed by tougher rules, regulations and governance. Similarly, it was found that HEIs structures were becoming multifaceted bureaucratic entities where the academic MMs role was complex and ambiguous, and academic MMs acted as change agents in the HEI system. The notion of HEIs highly influenced by bureaucratic structures was noted from this research too like research by Conway and Monks, (2011). Furthermore, Cowen, (2007) pointed out that dependency on universities rankings and league tables was becoming more and more fundamental to HEIs in competing for student numbers and influenced process protocols in HEIs. Another dimension noted was university structure in terms of the change and challenges that were noted in the former polytechnics converted to modern universities after the Robbins report impacting universities, especially the Pre-

1992 Universities (Plate Glass Universities) and post-1992 having expanded and been given university status (Thomas, 2014). Overall, the results are consistent with research by Trowler, Ashwin, & Saunders, (2014) which revealed that current changes and challenges experienced by academic MMs working in HEIs incorporated issues such as mistrust, lack of collegiality, heavy workloads, losing self-identity especially for academic managers.

8.5.2 Leadership and Management

The second finding was on the Leadership and Management aspect of academic MMs roles in subsequent areas consisting of time management, people management and resources, stress management, resources and finance management, performance management, expectation management, absence management and risk management. These findings were on a par with the thematic core themes of research investigations by core authors such as: “Efficient leadership and management - practices of” (Goldfinch and Wallis 2010) in which the success of the middle manager role in the public sector was founded on achieving and restructuring of public services delivery, allowing leaders to lead and managers to manage by implementing local resolutions. Leadership development and its effectiveness also as discussed in the study by Dopson et al, 2016). HEIs descriptive roles and skills enhancement for academic MMs to enhance their leadership to enable effectiveness and efficiency in their work environment (Bryman, 2011).

8.5.3 Staff support

Thirdly, the present study findings corroborate in understanding and valuing development and support for the staff, who agreed that bespoke courses should be made available to them to support them in their roles both internally and externally to HEIs. An interesting aspect was support for staff who undertook PhDs suggesting a PhD Writing Group. However, an interesting finding in staff support was a course called Neuro-linguistic programming (NLP), which is a communication, personal development, and psychotherapy course. It was found that the development and trainings in HEIs were similar to research by Smith, (2002), where training and development for Academic MMs were inadequate or non-existent. Also, it was found that social structures

and situations provided a platform for academics to follow their personal projects, develop their social identity and personal skills. Universities whose vision and mission related to the provision of HEIs education, development and training, had ironically infrequently empowered much in the development of their own staff. This was in line with the finding by Archer, (2007) meaning more development and support for the staff was needed. Moreover, it was found that advance staff such as Heads of Department (HODs) should encourage HEIs to provide the most desired training and development in the form of personnel management, financial management, dealing with staffing issues and challenging the fundamental causes of stress as described by Smith, (1996). In his study, another key issue was of time management for most of the staff interviewed. Also, it was found that academic MMs roles in HEIs are very demanding and immensely time-consuming which require time management training similar to the study findings of Grummell et al., (2009). The results of this study also indicated that the development of research and research skills within universities was also a crucial aspect and academics having a flexible personality imperative to the success of HEIs similar to the findings of Brew et al, (2016). This study also revealed staff development initiatives so as to assist staff to explore and develop their own teaching philosophy, new practices and sharing and learning from others. Teachers can develop around the various aspects of stimulating teaching by support from senior leadership and HEIs positive culture, a view also expressed by Williams et al (2016) in their study. However, development and training of teaching staff in HEIs required support as found out from research by Lunt, (2008). It is critical for HEIs to offer staff support in the environment of HEIs which is full of dynamic changes and challenges affecting academic MMs roles extensively. Although, the vivacious role of Academic MMs requires support and attention as described in a longitudinal study by Conway and Monks, (2011) that scrutinized organizational change and processes, it offered no total solution to a grounded theoretical approach. However, the key themes from the findings mentioned in this section would act as an inception point for developing academic MMs in their roles.

8.5.4 Skills development and communication

Fourthly, a key strength of the present study finding depicted the trait of skills development and communication needs of academic MMs. These characteristics were crucial for academic MMs confidence building, course knowledge and information. Relevant developmental courses and workshops to enhance their personal and business skills. However, strong strategic direction from top levels in HEIs was required to combat deficiency in communication and new methods required to comprehend the excess innovation and disruptions in HEIs as found in a similar study by Beech and Macintosh, (2012).

8.5.5 Courses

Fifthly, results revealed the desire for relevant courses to be provided by HR departments at HEIs which are appropriate and suitable for the different levels of academic MMs. Generic development programmes were less appealing and productive for academic MMs developmental needs. It is vital for HR departments at HEIs to afford relevant courses for academic MMs such as programmes to assist in teaching, research and supporting learning. The importance of such can be sampled from the revised UK Professional Standards Framework (UKPSF) for teaching and supporting learning in higher education (HEA, 2011), there is a significant degree of unfamiliarity about the framework itself even amongst staff who had embarked on development mapped against it (Turner et al., 2013). Hence, courses available to academic MMs should be not only appealing for participation but significant to academic MMs needs.

8.5.6 External Outlook and engagement

Sixthly, external outlook and engagement was another important attribute of international collaborative partners, knowledge transfers with industry, internationalization, prestige and enterprise for the respective HEIs. The study by (Cowen, 2007) relised that HEIs external outlook and engagement relied on dependency on universities rankings and league tables. While, (Altbach, Reisberg, and Rumbley, 2009) studies suggested that demographic data such

as; size, locations, genders, changes in student type, and variations by region and international student mobility influenced HEIs outlook. However, (Kubler and Sayers, 2010) and (Watson, 2011) studies substantiate that HEIs and academic MMs require good leadership and management, accountability, transparency for the modern era of excellence and pertaining to academic MMs identities.

8.5.7 Rules, Regulations & Policies

Seventhly, understanding the rules, regulations and policies affiliated to the Academic MMs role was crucial. However, the rules, regulations and policies were entities influencing all aspects of academic MMs role, if different perspectives both internally and externally to HEIs. This was in line with the findings of Stanfield, (2011) in which fast paced policy changes in HEIs were a norm and academic MMs had to keep in pace with these developments at the forefront. However, a contemporary subject known as Knowledge Exchange Framework (KEF) was introduced in the process of this project, hence, Academic MMs perceptions in this regard could not be captured in this respect. The Governments former body, HEFCE, changed its name to the Office for Students (OFS) and is now a new regulator of HEIs in England, and Research England. The new council within UK Research and Innovation, developed the knowledge exchange framework, intending to support the Government's Industrial Strategy *Building a Britain fit for the future* in November 2017. The framework plan is to strengthen efficiency and effectiveness in the use of public funding for knowledge exchange HEFCE (2018).

8.5.8 Mentorship and coaching

Eighthly, mentorship and coaching support was crucial in HEIs. The results obtained were in accordance with recent studies indicating that misunderstanding the true Academic MMs role was a phenomenon and drifted between managerialism and collegiality (Rudhumbu, 2015). Another aspect was of career trajectories where academic MMs were perceived as being career track managers who come into HEIs and shadow the trajectory path of advancing in careers via promotions, opportunities and steps-up-the-ladder

approach and who required support in mentorship and coaching at different levels Currie et al, (2008). The research has also shown that HEIs staff with non-traditional backgrounds from within the professions (e.g. from schools and colleges without doctorates) demonstrated low levels of research confidence, poor research networking, dire need for research mentoring and supportive interactions with others, results like those of Sharp et al (2015). Also, it was found that teachers beginning careers in HEIs from schools and colleges ought to experience a dual transition; that is, from teacher to lecturer and lecturer to academic, the latter with a more developed academic identity. Without both entities, individuals or groups may become organizationally rather than academically socialized like the findings of Dinkelman et al. (2006).

8.5.9 Student experiences

Ninthly, student experiences were reported as a paramount issue especially in student recruitment, retention and student positioning. These results corroborate the ideas of Altbach, Reisberg, and Rumbley, (2009), who suggested that escalation in student populations and demographic data has put more pressures on Academic MMs in HEIs. Also, the Browne Review suggested that various factors such as; HEI investment, offering student varied educational choices, widening participation for students, flexible fees payments plan amidst structured affordability, Part time and full-time costs in learning, to be priority and implemented in HEIs, highly influenced student experiences (Browne et al., 2010). Student choices, policies and regulation were highlighted with the new research bill that included aspects for local and international student choices, top education governed by relevant policies and regulation. In addition, promoting the UK to become a world leader in innovation and research (BIS, 2018). Another factor was that widening participation in higher education at both undergraduate and graduate levels in management programmes brought in many challenges for professionals to ensure students' progression, retention and sustain overall professionalism similar to the study of Hazzard, M., and Nwagbara, U., (2016). Finally, intensification in local and international students competition was putting more pressure on HEIs alongside with the funding and staff management as found by (Bolden et al, 2015) research.

8.5.10 Role Model and Shadowing

Tenthly, academic MMs requested a role model and shadowing in their roles. This result agreed with the findings Gatenby et al, (2014) which showed academic MMs role was ambiguous and perceived as a change agent role within public services. This phenomenon was far away from conception of managers to manage and leaders to lead. Academic MMs were required to have both leadership and managerial skills. In addition, Government transformations were influencing the HEIs environment and academic MMs roles were pressurized even more. Hence, academic MMs require support for their role by linking with role models and shadowing in various positions to gain valuable experience and confidence both internally and externally to the HEI.

8.5.11 PDPR

Eleventh, results revealed that efficient PDPR processes and support was drastically needed. The results were consistent with research by Floyd, (2012) who suggested that academic MMs venture into HEIs based on their personal and professional circumstances especially for academic managers who consider elements such as, rewards, socializations, bureaucracy, loyalty and accountability. However, academic MMs were facing massive pressures in their roles which required effective PDPR initiatives for HEIs to seriously consider for academic MMs development.

8.5.12 Team Work

Twelfth, team working between the staff in the HEIs was paramount to the success of HEIs. The results were in line with those of previous studies by Bacon, (2014) and Jónasson, (2008). However, it was found that the lack of decision-making processes for the majority of academic MMs meant that academics felt pressurized and ignored as an HEI resource despite being educated, intellectual and eloquent. Academic MMs felt their dismay for being underused in institutional decision-making as similar to findings of Bacon, (2014). However, HEIs structures were getting tougher and generally ignorant. Also, academic MMs felt they were not involved with decision-making processes and getting a feeling of working in a team. Therefore, having an

understanding and staff working together as one unit would be beneficial for HEIs to build on the team spirit between academic MMs and other staff.

8.5.13 Teaching Learning and Research assessments

Thirteenth, it was found that effective Teaching and Learning should be especially focused on TEF (Teaching Excellence Framework). Not only was this phenomenon reliant on TEF but swift changes and challenges in HEIs also affected effective Teaching and Learning. Support in TEF related issues should be encouraged in HEIs. As reported, the TEF was established to enhance quality teaching for all types of students studying in universities HEFCE, (2017). There was the inception of the new TEF awards based on university rankings aimed at distinguishing and rewarding excellence in teaching and learning in HEIs. Besides, the new TEF supports prospective students a list of various choices about HEIs, TEF exerted more pressure on academic MMs and HEIs from student perspectives. However, the TEF was designed for voluntary participation and individual HEIs determined whether they wish to be accredited or not with more and more HEIs joining in. Besides, awards are based on Olympic style Gold, Silver or Bronze (HEFCE, 2017). Also, it was found that marking and assessments practices relied on staffing or hierarchical models in the HEIs that impacted on academic MMs performance (HEFCE, 2010). Academic MMs roles and careers were influenced by abrupt changing and challenging environment of HEIs. Also, academic and professional staff were highly affected in their practices due to these changes and challenges as found in study by Middlehurst, (2010). Additionally, support in research aspects was crucial and other related results were in accordance with the findings of Sharp et al., (2015) where the HEIs staff with non-traditional backgrounds from within the professions (e.g. from schools and colleges without doctorates) demonstrated low levels of research confidence, poor research networking, dire need for research mentoring and supportive interactions with others. It was found that academics having a flexible personality was critical to the success of HEIs like the findings of Brew et al, (2016). In conclusion, it was found that HEIs and academic MMs are required to have a high level of effective research, teaching and learning practice which validates a joint study by the former Quality Assurance Agency

(QAA) and National Union of Student (NUS), in which students demanded that lecturers have an active learning style and teaching skill developed (QAA & NUS, 2012).

8.5.14 Accountability- Reporting - Responsibilities

Fourteenth, this study found that more clarity on the accountability and reporting was needed with clear definitions of academic MMs responsibilities. Also, issues pertaining to workloads and bureaucracy required support. In this respect, the most important clinically relevant finding agreed with the study of Vincent, (2004) where academic MMs were constraint by various income pressures, to work efficiently and effectively and, were tightly held accountable and who needed to demonstrate transparency. This finding was like that of Watson, (2011). These results agreed with those obtained by Deem, (2000) where bureaucracy, pressure and accountability lacked development support and limited formal training and development for academic MMs in bureaucratic structures was full of pressures such as long extended hours, meetings, unimaginable paperwork and fighting for resources, increase in inspection and scrutiny culture at the HEIs, immense student numbers and difficulties between teaching learning and research. The results further supported the idea of Currie et al. (2008) in which academic MMs were under the spell of new managerialism and becoming entrepreneurial managers and leaders. However, the rewards related for these issues were not balancing with the bureaucratic workloads and HEIs were progressing into becoming more and more complicated entities. Furthermore, the results confirmed the association between teaching and research in HEIs exerting pressures especially for academic MMs who were academics. Also, there were, hefty workloads comprising of management and bureaucratic work instead of more teaching and research activities for head of departments similar to the study by Floyd, (2012).

8.5.15 Technological Advances

Lastly, this study found that support of technological advances was much needed with the unpredicted changes in technology similarly as expressed by Chater, (1998). Excessive innovations were disruptive to academic MMs and

HEIs who required development to keep up with the technology advances. the study confirmed the findings of Bolden et al, (2015) which revealed that in addition to the global financial crisis, the dynamic advancements in technology required more development and training. Other key related findings confirmed the current issue of Digital Literacy as presented in the Higher Education Review in 2015 where a multiple group consisting of representatives of former Higher Education Funding Council for England, Universities UK, GuildHE and Association of Colleges found that the two key themes happening in the academic year 2015-16 were Student Employability, and Digital Literacy. Review, H. E., (2015). In conclusion, modern technology in HEIs had led to various challenges prevailing and it was becoming essential for development of academic MMs in Information Technology as found by Cooke, (2008).

In conclusion however, it was found that employability in HEIs had changed drastically in the past 10 years where it was mainly based on fixed term contracts as previously found in the study by Collinson, (2004). However, currently this study found that majority of academic MMs were now on permanent contracts. The study agreed with (Hoech, 2006) in that the essence of quality assurance in HEI was sought for by all Academic MMs working in HEIs and organizations. Implementation of quality assurance in HEIs in all areas and its importance was an ongoing process. In summary, in addition to the afore mentioned findings, it was discovered that HEIs needed to support academic MMs in the following key areas: strategy and planning, data analysis, National Student Survey (NSS), Academic MMs balancing work and life, academic MMs understanding changes and challenges in HEIs, ethics, Academic MMs participating in annual staff surveys, comprehending contracts, academic MMs influencing their career progression, TEF (Teaching Excellence Framework), academic MMs to be opportunity seekers and face head-on with bureaucratic procedures and processes, disability awareness, project deliverables, academic MMs having a vision and mission for their HEIs and personal future.

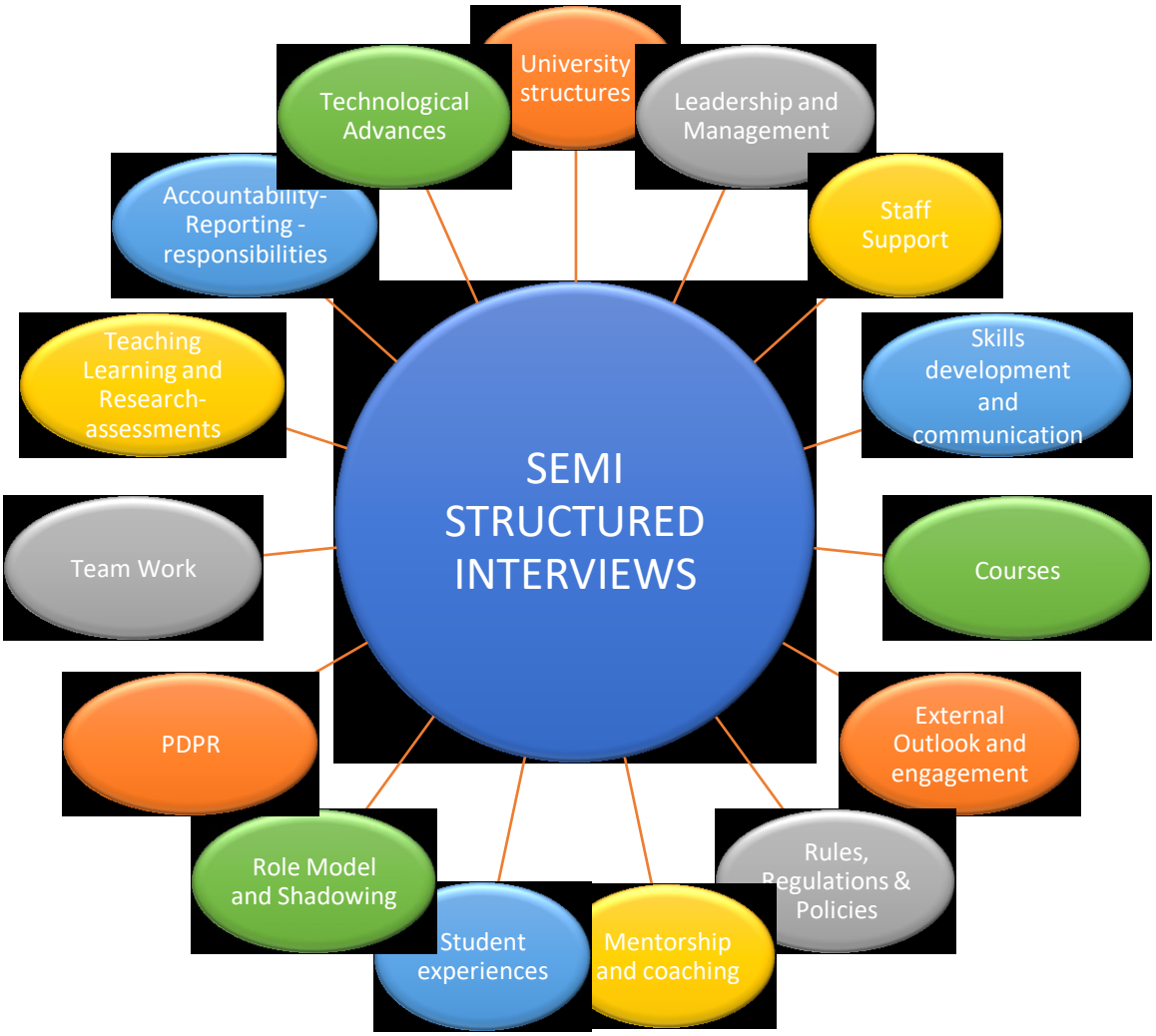

Figure 29: Conceptual model from semi-structured interviews

8.6 Case studies

During the Case studies, 23 Cases were considered at Meso level revealed the top eight key themes as shown below. Please note the micro cases are discussed in detail in qualitative phase two (Chapter 5).

1. MANAGEMENT

- Resource and Finance Management
- Time Management
- Performance Management
- Expectation Management
- Stress Management
- People management
- Leadership & Management
- Self-Management
- Organic/Collegial management

- Absence management
- Management Programmes
- Risk Management
- Project management
- Budget management

2. DEVELOPMENT

- Staff development programmes and courses
- Collegial form of development
- Student development & support- using structured approach
- Personal development planning PDPR
- Customized and appropriate Development courses for MM
- Formal Training & Development
- Bespoke Training & Development
- Structured Development Modules
- Development programme for Entrants
- Leadership Development
- Continuing Professional Development (CPD)
- Skills development

3. SKILLS

- Enhance Skills
- Management or leadership skills
- People Skills
- Interpersonal Skills
- Mentorship and Coaching, Negotiation Skills
- Academic skills
- Bureaucracy skills
- Communication skills
- Research Skills & Excellence

4. LEADERSHIP

- Leadership
- Aurora Leadership
- Leadership and Management

5. ROLE

- Shadowing Job Role
- Day to Day Role Practicality
- Role Model
- Role Play
- Handling Complexity of Role

6. TIME

- Time Management
- Sacrificing own development time
- Student time completions
- Time for personal reflection

7. MENTORING

- Mentoring and Coaching

8. SUPPORT

- Support Staff Externally
- Trainings and Support
- Formal support
- Student development and support
- Roles Support
- HEI Support
- Informal Support

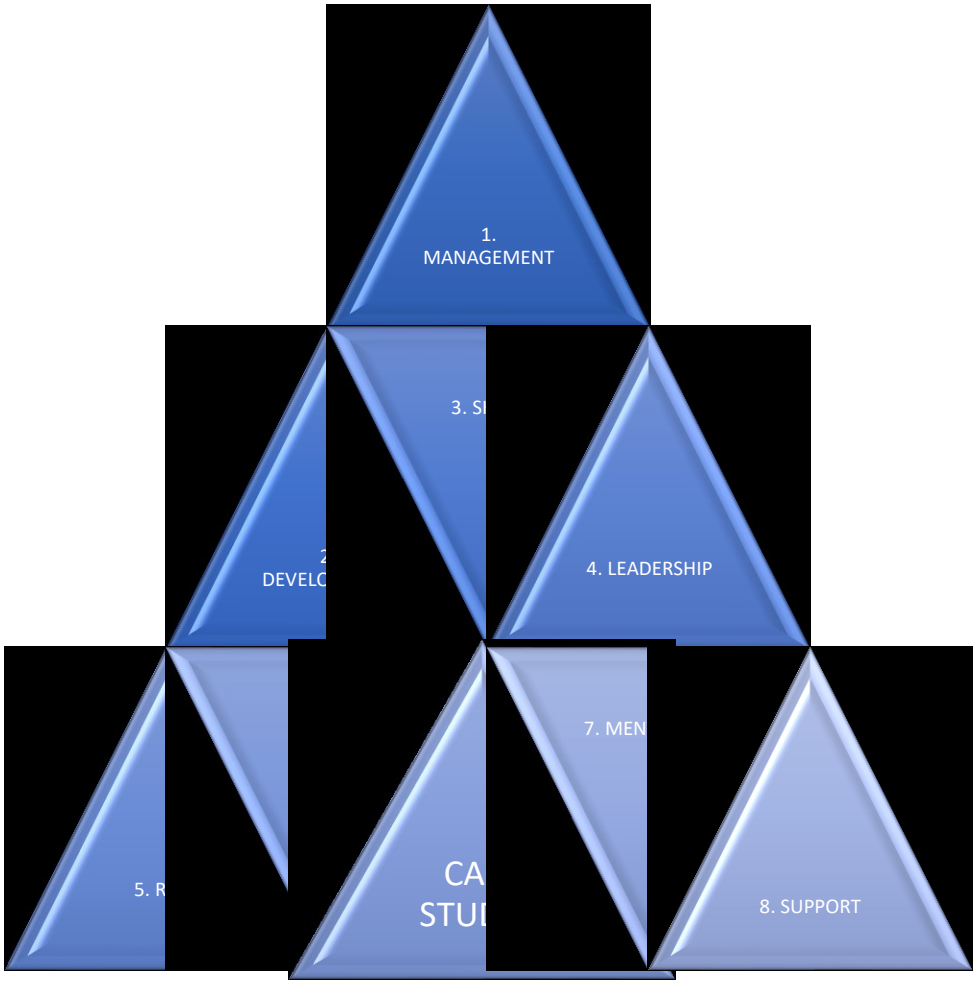

Figure 30: Conceptual model from internal case study of a post-1992 university

8.7 Grounded theory

For the Grounded theory approach, thesemi-structured interviews were converted into detailed transcripts and transcribed in verbatim format. Then, the transcripts were analysed in extensive detail using grounded theory protocol. The approaches embarked on line_by_line investigation open coding, axial and selective coding. Besides, making sense and content, data linking occurred between themes which produced a matrix against the cases with 267 individual case nodes. However, these nodes were categorized and included the 6 Main category headings. Additionally, 3 nodes were formulated for the researcher's general feedback, interview feedback, and Likert scale ranking of the whole interview to gauge research relevance. In conclusion, a model was derived by grouping the nodes rationally derived from pragmatic data of the qualitative stage. The data was advanced and appropriately grounded by the concepts of Miles and Huberman, (1994). The constructive development model consequential from rich interview data produced 264 themes in total subtracting 3 themes of the researcher's feedback which were captured for research quality purposes. The themes used inductive reasoning in which the research question was answered from observing the empirical data, pattern matching, generating hypothesis and finally theory building (by occurring and recurring; related and interrelated mapping; single and multi-dichotomous correlated themes).

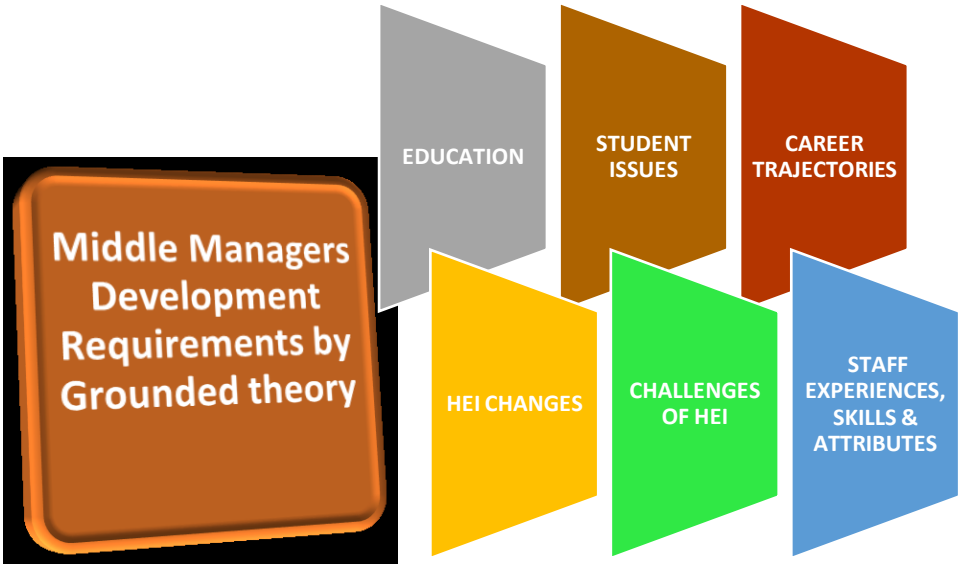

Figure 31: A conceptual model using grounded theory approach

8.8 Survey Questionnaire main contributing factors

The findings from the qualitative stage informed the next level enquiry during the quantitative stage to confirm the results. A validation questionnaire was designed consisting of 75 questions depicting the internal findings under three sections. Section 1 investigated academic MMs Demographic data. Section 2 examined the Changes and Challenges in Higher Education Institution (HEIs) while Section 3 explored the Development Programmes in Higher Education Institution (HEIs). The concluding part of the questionnaire consisted of an open qualitative question scrutinizing the top three areas of development that would support the academic MMs role. The survey questionnaire was pilot tested twice for any drawbacks prior to disseminating externally to other HEIs. The graphical representation of the conceptual model below shows the top seventeen areas for academic MMs development as confirmed by 166 participants during the survey questionnaire using descriptive univariate analysis.

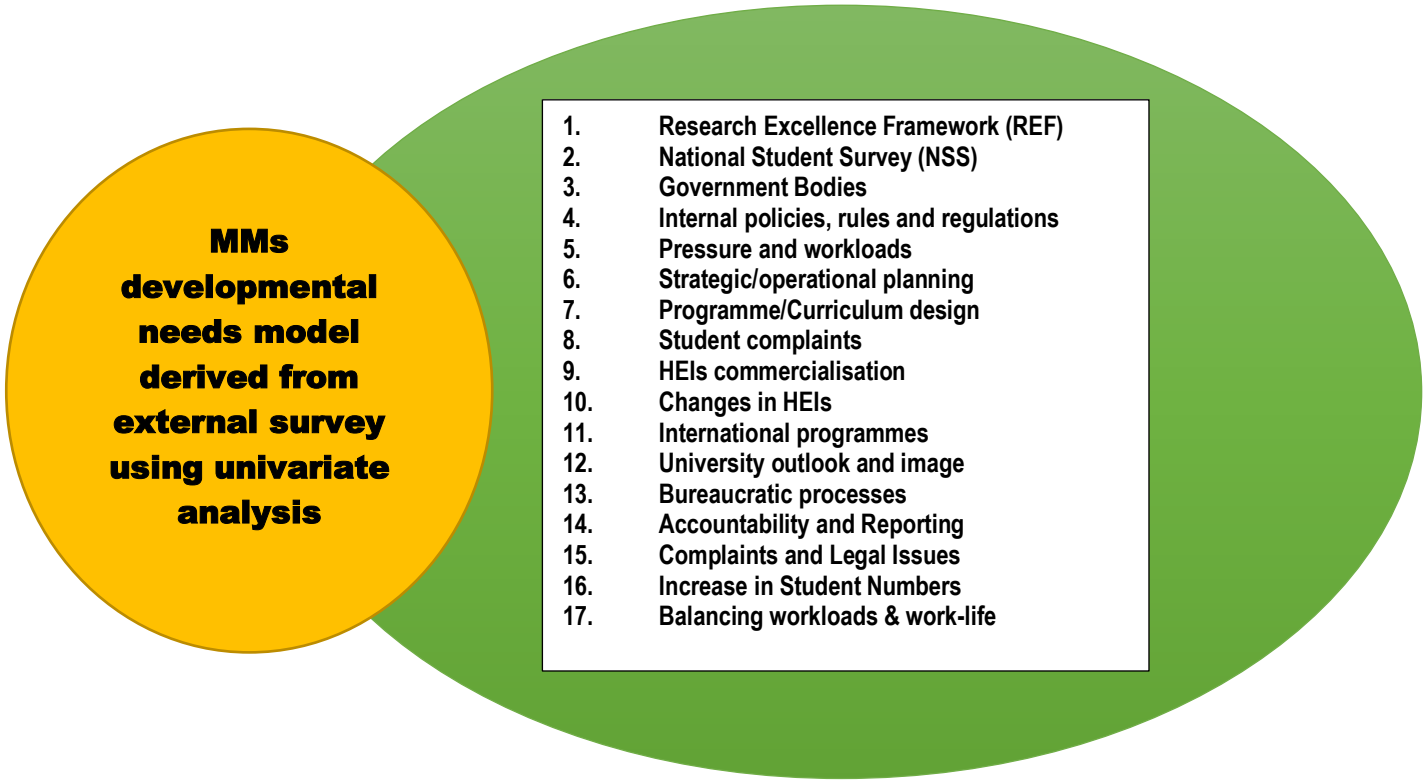

Figure 32: A conceptual model using univariate analysis

8.9 Implications and deliverables to the area of academic Middle Managers development

The study has gone some way towards enhancing our understanding of middle management developmental theory and practice. This study also narrows the gap existing in HEIs between the HEIs, academic MMs and HR. Taken together, these findings suggest key gaps in the academic MMs programmes and HR, and, how to bridge those gaps through management development programmes provision. The present study makes several noteworthy contributions to and extends our knowledge on the expanse of academic MMs development. Change management practice and processes can be easily defined by designing conceptual models in HEIs to understand the contexts, decision-making processes and assessing HEIs cultures as found from the study by Birds, (2014). Hence, this avenue was chosen in this setting of academic MMs and HEI perspectives for delivering a conceptual model for development needs of MM in HEIs based on their actual developmental requirements. This study found that generally there was a gap between the developmental programmes provided by HR in HEIs and academic MMs requirements as evidenced from the literature and results discussed above. Gaps reported lie in the following areas of development programmes that are recommended for HR policy improvement in HEIs as a basic protocol for development of middle managers: support in education, student issues, career trajectories, assistance in understanding and implementing rules, regulations and policy in relation to support in changes and challenges in the sector, and lastly patronage of staff experiences, skills and attributes. However, such gaps can be addressed by HEIs by identifying the core developmental needs of academic MMs and offered through detailed structured programmes as shown in the strategic results of the project.

8.10 Attitude of academic Middle Managers in cross case comparison

However, comparing the attitude of academic MMs in an internal post-1992 university with the external universities which comprised of 141 UK universities (Ancient, Red Brick, post-1992 University, Russell Group) during case comparison revealed interesting results. Three levels of positive, neutral and

negative attitude were recorded based on descriptive analysis of the participants.

Positive academic MMs attitude facing a typical post-1992 university and all other categories of universities in unison showed 16 areas of low development requirements (Figure 33). Also, there were five areas of neutral agreement in all the HEIs (Figure 34). While, negative areas of academic MMs developmental requiring interventions (Figure 35).

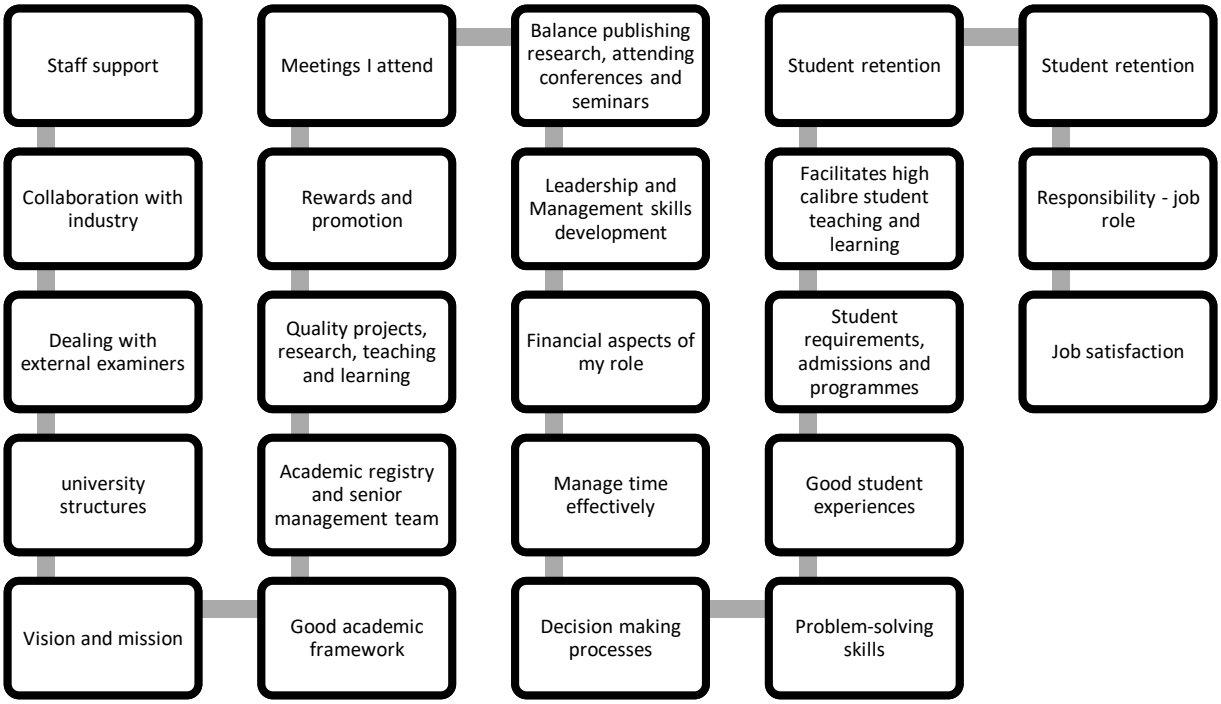

Figure 33: Positive attitude assessment of a post-1992 university with 141 external universities

Neutral academic MMs attitude facing a typical post-1992 university and all other categories of universities in unison showed 4 areas with medium development requirements.

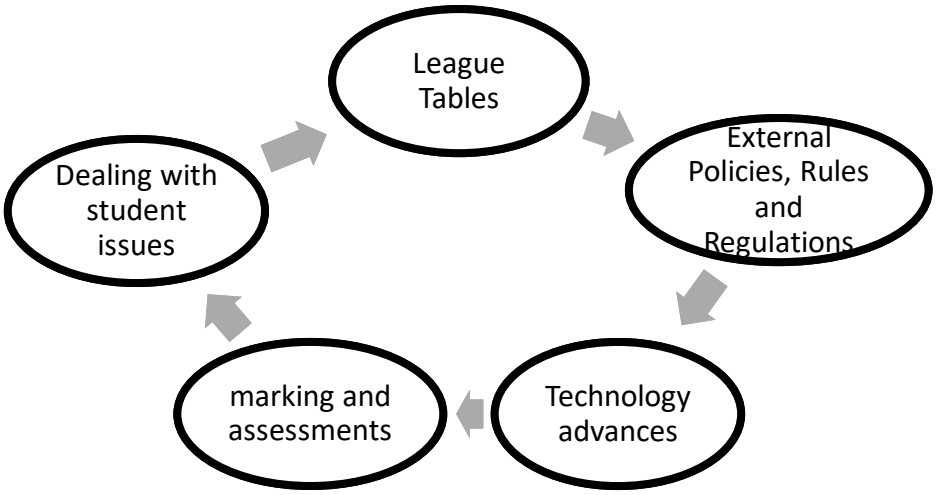

Figure 34: Neutral attitude assessment of a post-1992 university with 141 external universities

Negative academic MMs attitude facing a typical post-1992 university and all other categories of universities in unison showed 4 areas of with high development requirements. However, the levels of Policies, Rules and Regulations is lower in the individual university and high externally.

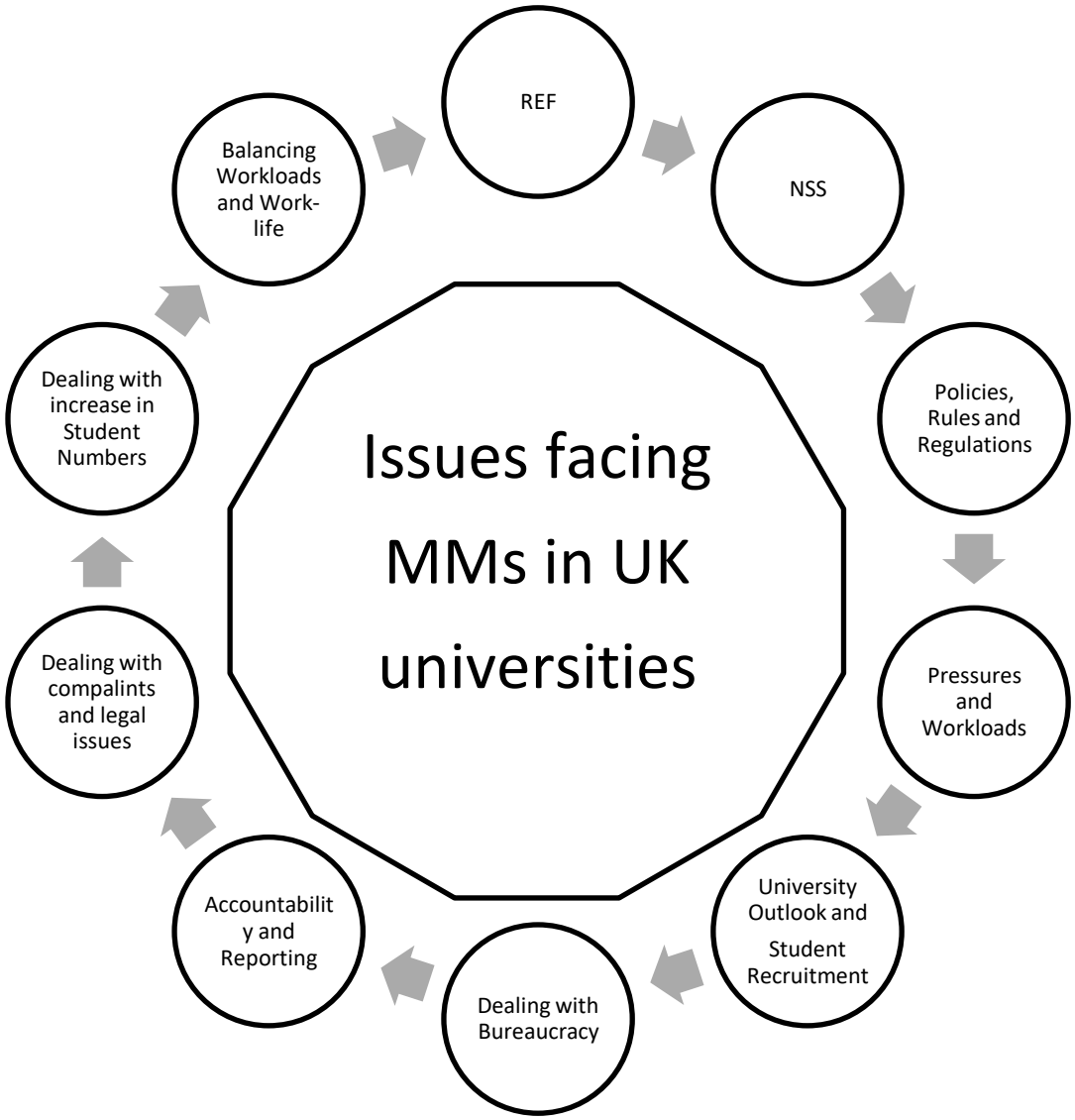

Figure 35: Negative attitude assessment of a post-1992 university with 141 external universities

Conducting factor analysis revealed various related themes grouped together which were grouped together and named dependent on relevance. The key factors identified for the survey questionnaire presented elements requiring academic MMs development in the following areas;

- Factor 1 -Time management and coherence
- Factor 2 - KPIs
- Factor 3 - Teaching, learning and student issues

- Factor 4 - Responsibility
- Factor 5 - Staff severances
- Factor 6 - Skills building
- Factor 7- External influences
- Factor 8 - Internal and external bureaucracy
- Factor 9 - Job role pressures
- Factor 10 - Communication and job satisfaction
- Factor 11 - Policies, rules and regulations
- Factor 12 - Decision making and deliverables
- Factor 13 - Programmes development and technology
- Factor 14 - University structures
- Factor 15 - Leadership and management skills, staff support and rewards
- Factor 16 -HEIs changing, accountability and reporting

8.11 Concluding qualitative conceptual models from all methods for academic Middle Managers developmental needs

Although there are many programmes extended by HR departments at universities supporting academic MMs, the following areas are recommended based from results achieved through 141 UK HEIs. There are several important changes which need to be made now to deliver developmental programmes for academic MMs working in HEIs. The following are areas around which developmental programmes can be structured to meet the demands of academic MMs. By designing and delivering these areas of promotion will efficiently and effectively support all the stakeholders working in HEIs, in particular academic MMs. Also, the full details and key themes are provided in the models development chapter (Appendix 44). Furthermore, results from all the methods were interestingly analysed using a qualitative approach in NVIVO. All themes from the results in methods was imported and text queried. As shown below, the concluding 10 themes were reported using this methodology.

Figure 36: Conceptual model for academic Middle Managers developmental needs based on all methods

Expanding and corroborating on the above themes and findings from the mixed methodology, the following conceptual model shows top 6 areas for academic Middle Managers development. The first area for developmental needs for academic MMs lies in the Key Performance Indicators (KPIs) related issues such as TEF, REF, League tables, NSS. The second area would be associated with management of research, reserach output and training. Thirdly, it is vital for academic MMs to know how to deal with Bureaucracy Rules, Regulations, Policies, Legal issues Accountability at respective HEIs. Fourthly, the key category which was reported by all MMs in all methods is linked to student issues with elements such as student experiences, performance related, and their personal issues. Furthermore, fifthly, academic

MMs need to self-assess for skills building and progression related such as career development and keep par with advancements. Lastly, since academic MMs are smart individuals who are a great asset to HEIs, the aspect of managing people in such institutions requires advanced skills and patience since dealing with smart people can be challenging all together.

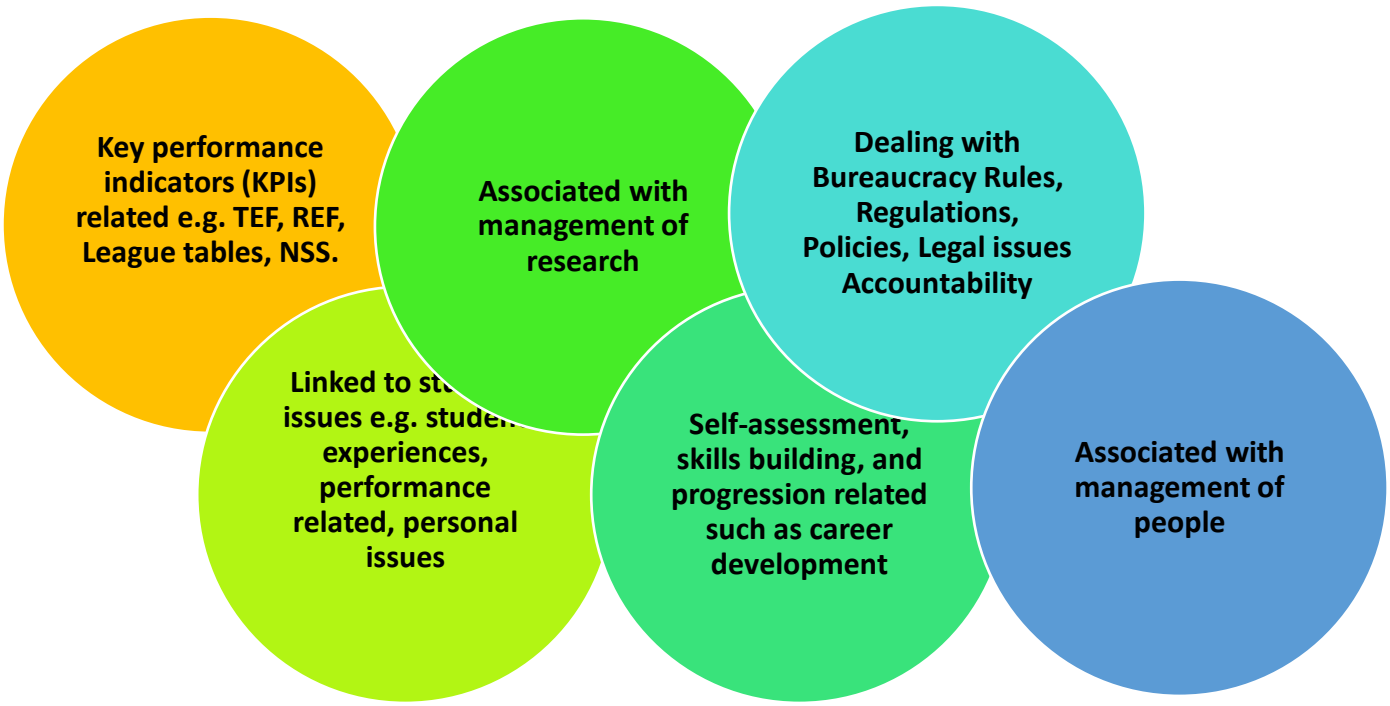

Figure 37: Conceptual model showing top 6 areas for academic Middle Managers developmental

8.12 Logic processes flowchart for delivering the academic Middle Managers developmental requirements

There are several important changes which need to be made now to delivering development programmes for the academic MMs by HR in HEIs. The first step would be to establish the input parameters on the different staff backgrounds. Since HEIs have various forms of academic MMs such as academic staff, administration staff, professional staff, staff from industry, this study focused on academic academic MMs. Nevertheless, the process flowchart suggested

at the end of this section would be applicable in all scenarios and sets of academic MMs. The second step would be to understand the demographic data, age group, gender, qualifications, career trajectories and experiences of academic MMs to be developed whether new or current staff. It is worthwhile to perform development needs analysis, identify user requirements parameters: who, what, how, when, and where to develop academic MMs. There are two approaches to identifying and developing the academic MMs. The first would be through the PDPR of individual academic MMs requirements, and second a provision of generic development programmes key to the cohort of academic MMs requirements as found in this study. For example, generic modules to be provided to all academic MMs would encompass programmes such as understanding the structures of HEIs, what constitutes the Research Excellence Framework (REF), how to provide excellent teaching, learning and research for positive impact on facets like National Student Survey (NSS), mentorship and coaching facilities available, how to deal with Government Bodies, how to deal with internal policies, rules and regulations, how to effectively manage pressure and workloads, how to conduct strategic/operational planning etc. So, based on this, the third step would be decision-making processes, planning, implementing, and feedback would rest on the shoulders of HR for academic MMs support. If no development is required by academic MMs then the process stops otherwise the type of support required is provided, be it through the individual PDPR or generic processes according to the research findings of this study. The entire logic practice can be delivered using the academic MMs developmental requirements flowchart below in a recurring system.

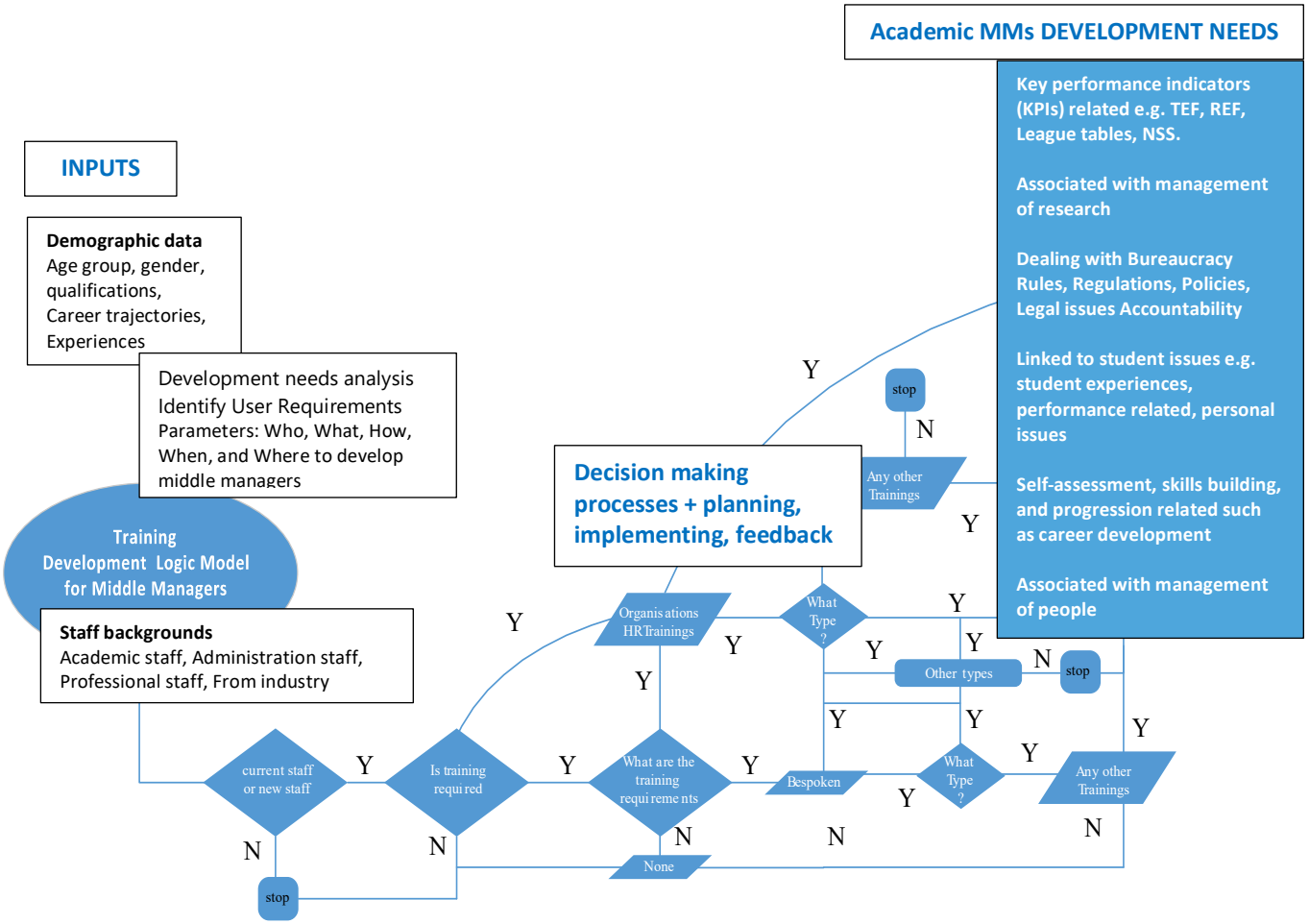

Figure 38: Logic processes flowchart for MMs developmental requirements

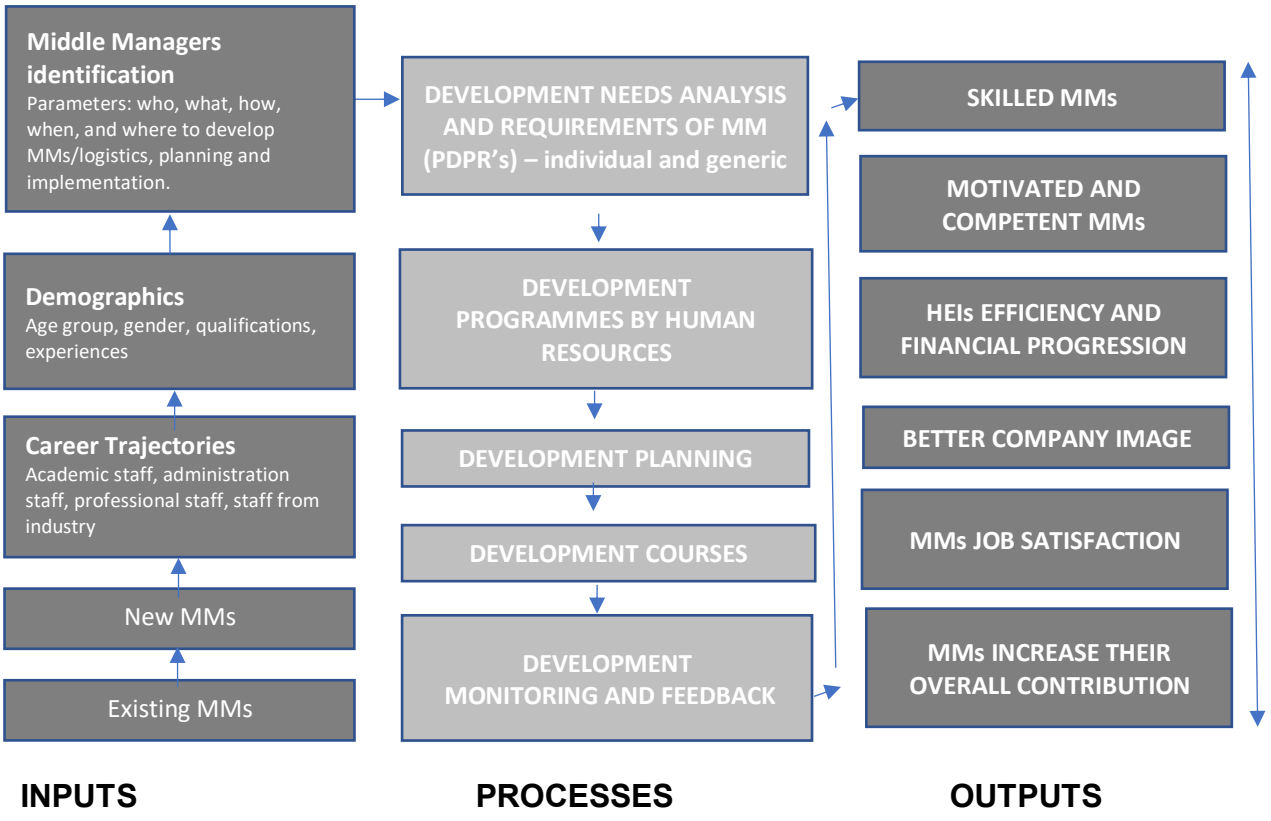

Figure 39: Developmental process model - input-processes-output

Furthermore, the suggested approaches will require the HEIs HR to monitor and gain feedback on the development programmes running through the afore mentioned approaches and processes. The output of such development will act as a massive benefit for the stakeholders with skilled, motivated, and competent academic MMs with an increase in their overall contribution and job satisfaction. On the opposite side of the continuum, the HEIs will be more efficient facilitating a better company image and financial progression. In conclusion, the approach suggested by Driver, (2016) is crucial for HEIs. The author explains that the fundamental role of an organization is to create assets and enable people to use them to benefits by encapsulating the role in an open strategies concept of PRUB in his words, the prescribed formula is that; organizations run Projects to create Results (assets) which people Use to create Benefits. Hence, to be effective, strategies should directly impact on improving this core role of organization, that is, on improving the principal PRUB sequence. Therefore, it was vital to understand PRUB thinking for this project to diagnose existing strategies; refine them or create new strategies; validate them; interlink them with correlated strategies; to engage effectively with all stakeholders; implement strategies and finally manage them.

8.13 Implications for contribution to theory, practice and research

8.13.1 Contribution to theory

This is the first time to the knowledge of the researcher that such a comprehensive study on academic MMs developmental needs in HEIs has been conducted. The research findings have identified the underlying issues with academic MMs developmental theory and practice. The investigation findings complement those of earlier studies e.g. (Bryman 2012, Birds 2014, Browne et al., 2010, Beech and Macintosh 2012, Floyd 2012, Bolden 2015, Currie et al 2008, Gatenby et al, 2014, Deem, 2004, Conway and Monks, 2011, Rudhumbu, 2015) to name a few. Therefore, this research assists in our understanding of the role of academic MMs in HEIs and what support is required for them to work effectively. This study informs of the approaches, strategies, choices, various techniques and procedures adopted in answering the aim, objectives and research questions. The findings from this study make several contributions to the current literature amidst new findings. Part of the

main contribution to theory has been during the identification and reporting of core themes during the literature review such as: understanding the Higher Education system, the changes and challenges in Higher Education Institutions (HEIs), roles and career trajectories of academic MMs, governance and policies, accountability, responsibility and reporting to mention a few. the findings also account for effectiveness and support for the Middle Management developmental programmes provided by HEIs. The present study confirms previous findings and contributes additional evidence as suggested. These findings enhance our understanding of personal attributes, attitudes and skills of a typical academic MMs related to HEI and student challenges. A scrutiny of what development programmes are undertaken at individual HEIs and their usefulness to the academic MMs job role is reported. Another important practical implication is that the ranking of the developmental programmes at respective HEIs has been reported on. The present study provides additional evidence with respect to how much time is spent on Human Resource (HR) related activities per week relating to the academic MMs role. The top three areas of developmental for academic MMs which would support them in their role is also discussed in the results and discussion section. This work contributes to existing knowledge to Academic MMs theory by providing and aligning the academic MMs development requirements via proposing structured relevant programmes to be implemented by HR departments using a conceptual model. To see more please refer to the originality section.

8.13.2 Contribution to practice or policies

The findings of this study have a few practical implications for the HEIs and HR. The results of this research can be used to develop targeted interventions aimed at developing academic MMs by HR departments using structured relevant programmes. A key policy priority should therefore be to plan for the long-term care of academic MMs in their early – middle – late career paths. HR can design an innovative style of approach to career paths for academia and offer full support throughout the academic MMs career journey. There is, therefore, a definite need for development programmes as suggested which fulfil the needs of academic MMs and not generic irrelevant programmes. It is a matter of inserting the right practices and policies in place for academic MMs

based on the findings of this study that greater efforts are needed for. These findings suggest several courses of action for practice and policies for example, development programmes in the following areas will assist academic MMs in their job roles; Information and support in key performance indicators (KPIs) related to such things as TEF, REF, League tables, NSS. Support associated with management of people and management of research. Backing and development of academic MMs by HR which are linked to student issues like student experiences, performance related and personal issues. Academic MMs self-assessment, skills building and progression by demanding relevant support in their Personal Development and Performance Review (PDPRs). In summary, the empirical findings in this study provide a new understanding of the fundamentals, practices and policies required in academic MMs development in the contemporary HEI environment.

8.13.3 Contribution to research

This research will serve as a base for future studies. The findings of this thesis could be used to help future research. Numerous publications and research dissemination procedures were produced during this study in the form of; international and local journal papers, international and local conferences, posters and elevator pitches, seminars, memberships and review undertaking. Also, more publications are in progress. Finally, various entries, awards and commendations. More details are found in (appendix 45). In general, therefore, this research has produced an extensive volume of synthesized work contributing to research in this phenomenal area.

8.14 Implications for originality

Overall, this study strengthens the idea of originality in its own perspectives and in the following ways:

8.14.1 Testing of theories

This study raises important questions about the current nature of developmental needs of academic MMs working in HEIs into fulfilling their roles effectively that require support. The theories which emerged in the literature review were tested in both the qualitative and quantitative choices.

The evidence from the literature review and two pilot studies theories contributed to structuring questions forsemi-structured interviews for further investigation. From the fundamental findings of semi-structured interviews, case studies were developed which gave discernments on individual and case cross comparison of the theories leading to a survey to confirm those theories.

8.14.2 Adding to knowledge of current theories

The findings of this investigation complement those of earlier studies of academic MMs management theory e.g. (Bryman 2012, Birds 2014, Browne et al., 2010, Beech and Macintosh 2012, Floyd 2012, Bolden 2015, Currie et al 2008, Gatenby et al, 2014, Deem, 2004). The emergent theories were tested in thesemi-structured interviews via set of questions posed to academic MMs working in four distinct roles ranging from deans to senior lecturers. The results added knowledge to the current theories for example, on student issues discussed by Browne et al., 2010 on HEI investment, offering students varied educational choices, widening participation for students from all levels of society, flexible fees payments plan amidst structured affordability, Part time and full-time costs in learning to be a priority and implemented in HEIs. Advanced issues pertaining to student issues revealed factors such as student related challenges in relation to academic MMs job role included;

- Handling increase in student numbers
- Student experiences – e.g. support, progression, engagement, attendance and monitoring,
- Student examinations, results, welfare, classes and facilities
- Student requirements, admissions and programmes maintenance
- Staff to student ratios
- Supporting high calibre student teaching and learning
- Student retention rates

8.14.3 New work perspectives

These research findings have significant implications for the understanding of the true developmental needs of academic MMs at all levels in their career trajectories. for the HR departments, it offers information on what value-based

development programmes to design and how to support their staff. The research has unveiled new work perspectives for both the academic MMs and HR collectively. As an example, for academic MMs entering HEIs, they need to understand the structures of HEIs, rules, regulations, skills etc. whereas for the HR department they need to provide valid development programmes based on actual needs of academic MMs e.g. stress management, educational ethics, publishing, mentoring, coaching etc. and must provide programmes which encourage academic MMs to participate in.

8.14.4 Synthesized work

Taken together, these findings suggest a concrete role of synthesized work across various platforms. The contemporary Literature review brought together the concepts from various fundamental authors in relation to answering the research question. The output was in terms of a comprehensive theoretical framework table showing the authors and their main findings (chapter 1). The deductive (theory-hypothesis-observation-confirmation) approach was applied in the initial stage of the research. However, the main approach for research was inductive where data collected for mixed methods underwent observation, then the patterns were established and linked together before asserting the hypothesis and finally theory building. In addition, the research method choices were also blended in the qualitative and quantitative premises. The strategies of using grounded theory generation, case studies and survey also intermingled throughout the project. For the part of research techniques and procedures, conclusions can be drawn from the present study that fused together data collection and analysis from semi-structured interviews, case studies, pilot studies and survey questionnaire (table 65). Also, producing a high calibre PhD project of this nature in a period of almost 4 years, is a major undertaking of integrated influential work during the entire research process.

8.14.5 New interpretations of the authors in the field

The results of this research support the idea of academic MMs developmental needs theory and grant new interpretations of the authors in this field. The current work of the authors was analysed vigorously and explored extensively.

The current data highlight the importance of work already conducted by renowned authors in the HEI management field, and, unleashes new interpretations and findings derived thereof.

8.14.6 Innovation in UK

The principal theoretical implication of this study is that it gives an innovative approach to the actual academic MMs developmental needs. Although, there are several studies in relation to the academic MMs development theorem, this study is unique, and an original piece of work conducted in a 4-year period. From the knowledge of the researcher, no such study has been conducted before, therefore, the research is novel in its own right.

8.14.7 Detailed work across methods

The study undertook a detailed mixed methodology approach across harnessing both qualitative and quantitative choices. The findings of the qualitative stage methods provided insights for the quantitative stage methods which incorporated pilot studies and survey questionnaire. Taken together, the literature review theories and mixed Methodology avenue for the research tested, complimented, validated and reported on emergent theories in the entire research process.

8.14.8 Discovery of new topics

The results of this study indicate discovery of new topics around middle management developmental needs. Also, measuring levels of the known topics, as an exemplar, though issues such as bureaucracy or managerialism in HEIs has been well known for decades (Floyd, 2012, Currie et al, 2008, Conway and Monks, 2011, Deem, 2000, Rudhumbu, 2015) but the level at which it affects academic MMs in their role was not entirely known. However, findings from this research suggest that in general academic MMs in all categories of universities mostly agree to the statement of their university being full of bureaucratic processes. But identical case comparison with a post-1992 university suggest that the academic MMs in such institutions neither agree nor disagree with the statement and are neutral. On the opposite side, an example of a new topic which emerged during the study, would be,

pinpointing aspects for development needs of academic MMs which include areas such as avoiding making mistakes, marketing issues, negotiation skills, professional behaviour and attitude etc. (comprehensive work is discussed in chapter 4 and 5).

8.15 Reflection and research limitations

Revisiting on the research questions in chapter 1, the subsequent answers to the question posed are represented for the entire study at different levels.

RQ1 – What are the changes and challenges affecting academic Middle Managers in Higher Education Institution (HEIs)?

Answer

Based on the qualitative responses of research. The following are determinants of changes and challenges for academic MMs in HEIs.

Changes

- KPI (TEF, REF, NSS, QAA, Surveys)
- Policy, Rules and Regulations
- Working conditions, terms & hours
- Environment and Government
- More Pressure
- Staff Support, Power, issues, engagement, experiences
- League Tables, Media
- Planning, Objectives, Goal setting
- Technology Advances

Challenges

- University, Structure, system, Vision, Mission, framework, mergers, benchmarks, academic registry, health and safety, Faculty management team
- Leadership and Management
- Accountability, Reporting, PhD students, Completions & Monitoring
- Course work
- Quality Projects, Research, Teaching, Learning

- Budgets and Financial Resources
- Generate income
- Higher Education Funding Council for England (former HEFCE– Now OFs)
- Balancing workloads and work life
- Bureaucracy, paperwork, administration, tick in box
- Time Management,
- Marking and assessments, modules
- Collaboration, Peer group and Collegiality

While in the quantitative part of the study in the external survey, the following issues were reported based on factor analysis.

1. Time management and coherence
2. KPIs
3. Teaching, learning and student issues
4. Responsibility
5. Staff severances
6. Skills building
7. External influences
8. Internal and external bureaucracy
9. Job role pressures
10. Communication and job satisfaction
11. Policies, rules and regulations
12. Decision making and deliverables
13. Programmes development and technology
14. University structures
15. Leadership and management skills, staff support and rewards
16. HEIs changing, accountability and reporting

However, in the all the phases of the study, the following key themes emerged based on these changes and challenges. A comprehensive table below outlines all the findings from the different methods adopted.

Table 65: Concluding academic Middle Managers developmental requirements framework from all the methods.

	Theme	Semi Structured Interviews	Grounded Theory	Case studies	Survey Questionnaire	Factor Analysis
	Semi-structured Interviews					
1	University structures	✔				
2	Leadership and Management	✔				
3	Staff Support	✔				
4	Skills development and communication	✔				
5	Courses	✔				
6	External Outlook and engagement	✔				
7	Rules, Regulations & Policies	✔				
8	Mentorship and coaching	✔				
9	Student experiences	✔				
10	Role Model and Shadowing	✔				
11	PDPR	✔				
12	Team Work	✔				
13	Teaching Learning and Research-assessments	✔				
14	Accountability- Reporting - responsibilities	✔				
15	Technological Advances	✔				
	Grounded Theory					
1	Education		✔			
2	Student Issues		✔			
3	Career Trajectories		✔			
4	HEI Changes		✔			
5	Challenges of HEI		✔			
6	Staff Experiences, Skills & Attributes		✔			
	Case studies					
1	Management			✔		
2	Development			✔		
3	Skills			✔		
4	Leadership			✔		
5	Role			✔		
6	Time			✔		
7	Mentoring			✔		
8	Support			✔		
	Survey Questionnaire					
1	Research Excellence Framework (REF)				✔	
2	National Student Survey (NSS)				✔	
3	Government Bodies				✔	
4	Internal policies, rules and regulations				✔	

5	Pressure and workloads				✔	
6	Strategic/operational planning				✔	
7	Programme/Curriculum design				✔	
8	Student complaints				✔	
9	HEIs commercialisation				✔	
10	Changes in HEIs				✔	
11	International programmes				✔	
12	University outlook and image				✔	
13	Bureaucratic processes				✔	
14	Accountability and Reporting				✔	
15	Complaints and Legal Issues				✔	
16	Increase in Student Numbers				✔	
17	Balancing workloads & work-life				✔	
	Factor Analysis					
1	Time management and coherence					✔
2	KPIs					✔
3	Teaching, learning and student issues					✔
4	Responsibility					✔
5	Staff severances					✔
6	Skills building					✔
7	External influences					✔
8	Internal and external bureaucracy					✔
9	Job role pressures					✔
10	Communication and job satisfaction					✔
11	Policies, rules and regulations					✔
12	Decision making and deliverables					✔
13	Programmes development and technology					✔
14	University structures					✔
15	Leadership and management skills, staff support and rewards					✔
16	HEIs changing, accountability and reporting					✔

Taken collectively with all the methods in this research, key categories of academic MMs developmental needs lie in the following fundamental areas requiring interventions based on qualitative analysis in NVIVO.

1. management
2. regulations
3. skills
4. external
5. accountability
6. staff
7. structures
8. student
9. learning
10. development

RQ2 - If the Middle Management developmental programmes provided to academic Middle Managers in their respective HEIs are effective and supportive?

Answer

This question received quite positive results from survey. Of the 166 survey respondents, 99 academic MMs (59.6%) participants were convinced that academic MMs developmental programmes offered at their respective HEIs were effective, while 67 academic MMs (40.4%) were not satisfied with the same. The majority of academic MMs who were satisfied were Head of Departments, while the least satisfied were Principal/senior lecturers. Hence, with induction the majority of the academic MMs cohort were happy with developmental programmes at their universities to be effective and supportive. However, majority academic MMs never took part in such developmental programmes in their respective HEIs. Hence, more is required of HEIs to encourage academic MMs participate in such developmental programmes that will enhance their skills.

RQ3 - What are the current true developmental needs for academic Middle Managers (MM) working in HEIs?

Answer

As an overall synopsis of the research, the ensuing factors are based on academic MMs developmental needs based on evidential data.

1. Key performance indicators (KPIs) related to e.g. TEF, REF, League tables, NSS.
2. Associated with management of people

3. Associated with management of research
4. Linked to student issues e.g. student experiences, performance related, personal issues
5. Self-assessment, skills building, and progression related such as career development.
6. Dealing with accountability, bureaucracy or managerialism, rules, policies and regulations,

(Appendix 44) presents key academic MMs developmental areas followed by 10 qualitative themes represented from all the different methods of this study.

RQ4 – What's the list for top three areas of development that would support academic Middle Managers in their roles?

This question was based on an open question in the qualitative part of survey and analysed in NVIVO by exploring word count. Results showed 3 areas of Academic MMs developmental needs are in **management**, **research** and **time**.

In any integral research, it is paramount to have research limitations bound to the project. A limitation for this study is that the overall time set for the project was quite limited to almost 4 years. More cross-sectional and longitudinal research can be conducted which has lengthy periods. Though academic MMs at 141 UK HEIs were sampled from 2,035 inviations, the total figure was limited to a sample size of 166 participants during the survey questionnaire, this study lacks participation of an all-encompassing cohort of academic MMs working in UK HEIs. However, only fully completed survey questionnaire forms were sought to maintain quality. Hence, the academic MMs who might have partially filled the survey questionnaire were not included from the cohort of 2,035, and their contribution was automatically removed via the BOS software. Perhaps, the topic could be covered in greater numbers and length in the forthcoming research around academic MMs developmental needs.

Another aspect of sample size limitation is during the pilot study 1 where only two participants were approached and limited. Future studies can look into

greater number. Also, the equal distribution of the types of MMs was a limitation with majority skewed to higher level of MMs.

Additional limitation was the notion of rapidly complete 9 interviews validating out of the total 23 interviews transcription during the Qualitative stage. The technique adopted was to capture the themes from audio listening and making notes of the cohort and constantly comparing with the data of other interviewees. This perspicacious technique of verifying the data in this manner is due to the time limitation allocated for this study and massive undertaking of qualitative data. However, 14 interviews were dealt with in rich analysis of line_by_line coding.

Since the study was limited to time, it was not possible to examine other categories of university and departments. In depth, though the sample size included 141 universities from the UK that included ancient, Post-1992, Red Brick, Russell group. This study was limited by the absence of other types of universities (somewhat) and other departments. For example, future research might investigate another category of university i.e. a distant learning organization and known as Open University. Dependent on this factor, the study is limited by the lack of information on such a data set for the study. future work can perform detailed research and its impact into the individual departments at universities, e.g. Business and Law, Health and Sciences, Education, Engineering, Environmental, Technology and Media, Arts and Social Sciences.

It is unfortunate that the study did not include an equally distributed gender proportion for academic MMs genders and roles despite trying to balance the gender ratios during participant recruitment. I believe any research would have a similar consequence with gender proportions as prediction of participants is virtually impossible. Hence, it was not possible to have an equal figure. For example, during the survey questionnaire 166 participants responded, the population included Male 93 (56%), Female 71 (42.8%) and Prefer not to say 2 (1.2%), whereas in the roles, Principal/Senior Lecturer 52 (31.3%), Subject

Head/Leader 44 (26.5%), Head of Dept./School Director 46 (27.7%), Dean 24 (14.5%). Therefore, a restraint on gender and roles balance.

Since the HEI sector is dynamic in nature, an additional uncontrolled factor is the possibility to keep a complete track on policy changes in the 4-year period of this PhD project and future. An example is the Office for Student (OfS), Knowledge Exchange Framework (KEF) that did not exist at the start of this project. Likewise, there might be other policies or issues the researcher is unaware of to the best of his knowledge as HEIs is extensive area of research.

The major limitation of this study is that it cannot predict on the future shape of HEIs, for example, with the current political, social, technological and economic issues such as Brexit, student immigration controls, student concerns related to education provision or social standing, policy changes. It is difficult to fully gauge the pressures associated with these aspects of academic MMs developmental theory.

The scope of this study was limited in terms of participation of academic MMs from all the academic MMs role positions in the UK. We can only estimate on the number of the Academic MMs population. Therefore, the generalizability of these results is subject to certain limitations. For instance, it does not include the entire academic MMs population working in UK HEIs. However, the NPT have done some justice to the academic MMs population applicability and generalizability of these results.

8.16 Beneficiaries

The main beneficiaries of this study can be classified into the following people and organizations who will benefit from the findings of this research:

- Middle Managers working in HEIs
- Human Resource departments at Universities
- Higher Education policy makers
- Other Higher Education Bodies
- Future HE Researchers

8.17 Future recommendations

No research can be 100% perfect and there is always room for exploitation. This research has thrown up few questions in need of further investigation. More research is needed to better understand the whole concept of academic MMs developmental theories in an extended research period. Since understanding the constantly changing HEI environment, it is very difficult to keep pace due to its diversity and complexity. Research into HEIs requires a larger researcher base and resources to do complete justice to the topic of academic MMs development.

It is suggested that the following future recommendations be undertaken in the following areas. Further research might explore the findings of this research in a structured approach by HR to supporting and developing of academic MMs in their role via customized PDPR processes and not using a generic model. For example, new entrants in their academic MMs roles would require support in terms of polishing their individual skills and attributes, stress management, university culture, coaching and mentoring directives from the HEIs, understanding the organization structures. Whereas academic MMs in their midpoint career would need development programmes of how to be accountable, negotiation oriented, laying strategies and planning, decision making and shadowing in a role. Whilst at the highest level of academic MMs career, the experience would be greater and development programmes would be less such as financial training, rules and regulations, handling staffing problems, preparing documentation, people management to mention a few. Though different levels of academic MMs will have different needs in their career trajectories issues such as publishing research, work ethics, quality teaching and research are applicable at all stages of career progression.

More broadly, research is also needed to determine the specific design of relevant developmental programmes appropriate for each academic MMs expanded from this research. It is suggested that the association of findings in this research is further investigated in future studies. This will ensure more research is required to determine the efficacy of academic MMs perceptions and delivery via development of crucial programmes.

Since academic MMs are key decision makers for running their departments further research might explore pinpoint issues e.g. clarity in conflicting issues such as the job descriptions and workloads working in harmony for the academic MMs roles in their linear career path.

Another aspect of future research would be to compare experiences of individuals within the equally distributed gender groups (if possible!), wider participation of academic MMs in research, maybe have a national survey like NSS that scrutinizes students' perception. It would be interesting to assess the effects of gender related topics.

What's required is a cross-national programme of comparable research that can expand this research into detailed individual categories of universities belonging to different university groups namely; Guild HE, Russell, 1994 Group, Million+ and University Alliance (Gov. UK, 2017).

Further investigation and experimentation into other staff types working in HEIs is strongly recommended based on the understanding of the academic MMs phenomenon. More research using controlled trials is needed to expand research application to non-academic different paradigms of staff types e.g. professional services, strategic setters group consisting of chancellors/vice chancellors.

As mentioned earlier, since this research was based for a period of almost 4 years, a further cross-sectional/longitudinal study could assess the long-term implications of academic MMs developmental theory. Further experimental investigations are needed to estimate developmental needs in a longer period, hence, these further studies regarding the role of academic MMs would be worthwhile/interesting.

8.18 Published Work

A complete report on publications emerged from this research can be found in (appendix 45). Diverse mediums were developed in disseminating research

including international and local journal papers, international and local conferences, posters and elevator pitches, seminars, memberships and review undertaking. Various entries, awards and commendations were achieved during this period. Plans are underway to further publish more work alongside the thesis and discussions are currently taking place.

8.19 Summary of Chapter 8

In this final chapter we have discussed the aim and objectives of the study which have been met during the different research junctures. The main research findings have been discussed in relation to implications of Middle Management theory, practice and development within UK universities and how the study has contributed to the area of academic MMs development. The output of the study was a validated model which can be used by HR in universities for their staff developmental needs. The logic progression and delivery of relevant applicable programmes based on academic MMs requirements were discussed as well. Also, why such developmental programmes are paramount to HEIs and academic MMs is discussed by means of a developmental process model showing the input-processes-output.

The originality aspect and research limitations of the research has been discussed in great length. The main beneficiaries of this research are the academic MMs working in HEIs, HR departments at Universities, Higher Education policy makers, other Higher Education Bodies such as the newly formed Office for students (OfS) and finally future HE Researchers in the same field. Though there are profuse studies in the developmental needs of academic MMs, no study to the awareness of the researcher has been conducted and reported in such a wide scope and prolific detail. The study has put the academic MMs developmental needs to the heart of the HEI system, by understanding and dissemination their actual needs in both the qualitative and quantitative stages, thus, giving this study a strong quality base. Considering this mixed methodology scientific approach and focused strategies to the study, strengthened by data collection and analysis techniques has reduced the bias factor and justified the research. The entire

study underwent massive self and research team reflection and criticality in successfully producing this PhD project throughout the 4-year period. Not to mention the different avenues of research dissemination produced at all levels. Future recommendations are also highlighted to move this research in a similar direction to fulfilling the academic MMs developmental needs theories in this ever dynamic HEI environment.

Furthermore, in regard to the different models produced. The first objective was to create an initial model based on findings of the literature review and two pilot studies. The 1st model comprised of 9 categorical themes found out from the investigation. These included: Higher Education Structures and Systems (HEIs), Changes and Challenges in Higher Education Institution (HEIs), Roles and Careers Trajectories, Management and Leadership, Development and Practice, Governance and Policies, Accountability Responsibility and Reporting, Bureaucracy, Development and Training, Globalisation and International, Outlook, Competition, League Tables, HEIs Resources and Technological Advances and lastly Student Experiences and Choices.

The second objective was synthesising a model from the qualitative semi-structured interviews from 23 participants. The 2nd model comprised of 15 core themes, these were: University structures, Leadership and Management, Staff Support, Skills development and communication, Courses, External Outlook and engagement, Rules, Regulations & Policies, Mentorship and coaching, Student experiences, Role Model and Shadowing, PDPR, Team Work, Teaching Learning and Research-assessments, Accountability-Reporting – responsibilities and Technological Advances.

The third objective was to analyse the interview protocols extensively using Grounded Theory technique. This exercise produced a 3rd conceptual model with 6 core categories derived from nodes structure. The categories were namely: Education, Student Issues, Career Trajectories, HEI Changes, Challenges of HEI and Staff Experiences, Skills & Attributes.

The fourth objective carried out further exploration of the qualitative data using case studies. The 4th conceptual model produced 8 key categories using this method, namely: Management, Development, Skills, Leadership, Role, Time, Mentoring and Support.

The fifth objective explored the findings of qualitative data externally via a survey questionnaire. This was the most comprehensive model development task which included approaching 2,035 participants for the study for their perceptions. 17 key categories emerged from data analysis of survey questionnaire to produce the 5th conceptual model. These included aspects of: Research Excellence Framework (REF), National Student Survey (NSS), Government Bodies, Internal policies, rules and regulations, Pressure and workloads, Strategic/operational planning, Programme/Curriculum design, Student complaints, HEIs commercialisation, Changes in HEIs, International programmes, University outlook and image, Bureaucratic processes, Accountability and Reporting, Complaints and Legal Issues, Increase in Student Numbers and Balancing workloads & work-life.

The sixth objective conducted factor analysis on all the themes of the survey questionnaire and extracted 16 categories which were vital areas for MMs developmental needs. This activity produced the 6th conceptual model and comprised of the following: Time management and coherence, KPIs, Teaching, learning and student issues, Responsibility, Staff severances, Skills building, External influences, Internal and external bureaucracy, Job role pressures, Communication and job satisfaction, Policies, rules and regulations, Decision making and deliverables, Programmes development and technology, University structures, Leadership and management skills, staff support and rewards, HEIs changing, accountability and reporting.

The seventh conceptual model synthesised findings from all the different methods minus literature review themes. There were 10 major categories that emerged namely: management, regulations, skills, external, accountability, staff, structures, student, learning and development.

Finally, an addition new conceptual Figure 37 incorporated into the thesis shows top 6 areas for academic Middle Managers development based on researcher inductive experience from the data.

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